THE MICROWORLD MIRACLE

**And in your Creation and all
the creatures He has spread about there
are signs for people with certainty.
(Surat al-Jatthya, 4)**

HARUN YAHYA
(ADNAN OKTAR)

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ABOUT THE AUTHOR

Now writing under the pen-name of HARUN YAHYA, Adnan Oktar was born in Ankara in 1956. Having completed his primary and secondary education in Ankara, he studied arts at Istanbul's Mimar Sinan University and philosophy at Istanbul University. Since the 1980s, he has published many books on political, scientific, and faith-related issues. Harun Yahya is well-known as the author of important works disclosing the imposture of evolutionists, their invalid claims, and the dark liaisons between Darwinism and such bloody ideologies as fascism and communism.

Harun Yahya's works, translated into 60 different languages, constitute a collection for a total of more than 45,000 pages with 30,000 illustrations.

His pen-name is a composite of the names Harun (Aaron) and Yahya (John), in memory of the two esteemed Prophets who fought against their peoples' lack of faith. The Prophet's seal on his books' covers is symbolic and is linked to their contents. It represents the Qur'an (the Final Scripture) and Prophet Muhammad (may Allah bless him and grant him peace), last of the prophets. Under the guidance of the Qur'an and the Sunnah (teachings of the Prophet [may Allah bless him and grant him peace]), the author makes it his purpose to disprove each fundamental tenet of irreligious ideologies and to have the "last word," so as to completely silence the objections raised against religion. He uses the seal of the final Prophet (may Allah bless him and grant him peace), who attained ultimate wisdom and moral perfection, as a sign of his intention to offer the last word.

All of Harun Yahya's works share one single goal: to convey the Qur'an's message, encourage readers to consider basic faith-related issues such as Allah's existence and unity and the Hereafter; and to expose irreligious systems' feeble foundations and perverted ideologies.

Harun Yahya enjoys a wide readership in many countries, from India to America, England to Indonesia, Poland to Bosnia, Spain to Brazil, Malaysia to Italy, France to Bulgaria and Russia. Some of his books are available in English, French, German, Spanish, Italian, Portuguese, Urdu, Arabic, Albanian, Chinese, Swahili, Hausa, Dhivehi (spoken in Mauritius), Russian, Serbo-Croat (Bosnian), Polish, Malay, Uygur Turkish, Indonesian, Bengali, Danish and Swedish.

Greatly appreciated all around the world, these works have been instrumental in many people recovering faith in Allah and gaining deeper insights into their faith. His books' wisdom and sincerity, together with a distinct style that's easy to understand, directly affect anyone who reads

them. Those who seriously consider these books, can no longer advocate atheism or any other perverted ideology or materialistic philosophy, since these books are characterized by rapid effectiveness, definite results, and irrefutability. Even if they continue to do so, it will be only a sentimental insistence, since these books refute such ideologies from their very foundations. All contemporary movements of denial are now ideologically defeated, thanks to the books written by Harun Yahya.

This is no doubt a result of the Qur'an's wisdom and lucidity. The author modestly intends to serve as a means in humanity's search for Allah's right path. No material gain is sought in the publication of these works.

Those who encourage others to read these books, to open their minds and hearts and guide them to become more devoted servants of Allah, render an invaluable service.

Meanwhile, it would only be a waste of time and energy to propagate other books that create confusion in people's minds, lead them into ideological chaos, and that clearly have no strong and precise effects in removing the doubts in people's hearts, as also verified from previous experience. It is impossible for books devised to emphasize the author's literary power rather than the noble goal of saving people from loss of faith, to have such a great effect. Those who doubt this can readily see that the sole aim of Harun Yahya's books is to overcome disbelief and to disseminate the Qur'an's moral values. The success and impact of this service are manifested in the readers' conviction.

One point should be kept in mind: The main reason for the continuing cruelty, conflict, and other ordeals endured by the vast majority of people is the ideological prevalence of disbelief. This can be ended only with the ideological defeat of disbelief and by conveying the wonders of Creation and Qur'anic morality so that people can live by it. Considering the state of the world today, leading into a downward spiral of violence, corruption and conflict, clearly this service must be provided speedily and effectively, or it may be too late.

In this effort, the books of Harun Yahya assume a leading role. By the will of Allah, these books will be a means through which people in the twenty-first century will attain the peace, justice, and happiness promised in the Qur'an.

TO THE READER

A special chapter is assigned to the collapse of the theory of evolution because this theory constitutes the basis of all anti-spiritual philosophies. Since Darwinism rejects the fact of Creation – and therefore, Allah's existence – over the last 150 years it has caused many people to abandon their faith or fall into doubt. It is therefore an imperative service, a very important duty to show everyone that this theory is a deception. Since some readers may find the chance to read only one of our books, we think it appropriate to devote a chapter to summarize this subject.

All the author's books explain faith-related issues in light of Qur'anic verses, and invite readers to learn Allah's words and to live by them. All the subjects concerning Allah's verses are explained so as to leave no doubt or room for questions in the reader's mind. The books' sincere, plain, and fluent style ensures that everyone of every age and from every social group can easily understand them. Thanks to their effective, lucid narrative, they can be read at one sitting. Even those who rigorously reject spirituality are influenced by the facts these books document and cannot refute the truthfulness of their contents.

This and all the other books by the author can be read individually, or discussed in a group. Readers eager to profit from the books will find discussion very useful, letting them relate their reflections and experiences to one another.

In addition, it will be a great service to Islam to contribute to the publication and reading of these books, written solely for the pleasure of Allah. The author's books are all extremely convincing. For this reason, to communicate true religion to others, one of the most effective methods is encouraging them to read these books.

We hope the reader will look through the reviews of his other books at the back of this book. His rich source material on faith-related issues is very useful, and a pleasure to read.

In these books, unlike some other books, you will not find the author's personal views, explanations based on dubious sources, styles that are unobservant of the respect and reverence due to sacred subjects, nor hopeless, pessimistic arguments that create doubts in the mind and deviations in the heart.

1. A DIFFERENT WORLD FROM WHAT WE SEE: THE MICROWORLD

Are you ever really alone?

Even when you think you are sitting at home alone, you are still in the company of a great number of living things. Bacteria live on you and in your body, and constantly protect you and also, occasionally, cause you to become ill. Mites that are spread everywhere, from the chair you sit in to your carpet, to the air you breathe. Moulds and fungi begin reproducing on foods left out in the open in your kitchen for even a few hours—all of these constitute a different world with its own unique lifestyles, nutritional systems and structural features.

Maybe you have always thought that the humans, animals and plants you see around you represent the sole community of living things. Yet the microorganisms, members of a secret world that reach to every corner of the Earth, are far more numerous that those other, more familiar living things. These minute creatures outnumber the animals in the world by twenty to one. 1 In the same way that they are present all over the world, they are also essential to human life.

What are the members of this enormous community of microorganisms?

The living things we shall be examining in this book consist of bacteria, viruses, fungi, algae and mites. You will doubtless be familiar with their names, but may be mostly unaware of how closely your life is bound up with them. For example, the nitrogen cycle—one of the basic processes that make life on Earth possible—is established by bacteria. Root fungi, on the other hand, are the most important factor in the way plants extract the minerals from the soil. Bacteria on your tongue prevent you being poisoned by foods containing nitrates, such as salad or meat. At the same time, bacteria and algae are able to perform photosynthesis, another essential process factor in the existence of life on Earth, and an ability they share with plants. In short, these microorganisms are a vital components in the balance of life on Earth.

On occasion, some of these microscopic living things also give rise to sickness. The immune and defense systems in your body exist in order to combat these organisms. Some spread through your body at great speed, employing methods that medical science has still not uncovered, while

others may put an end to someone's life in mere moments, or only gradually. Some may benefit for a living creature in return for making use of its structures, in other words, living in a symbiotic (shared life) manner. Other microorganisms are able to combine together, making decisions and plans, organizing, and carrying out the most delicate processes. All these functions are performed by microorganisms, which generally consist of a single cell, and which cannot be seen with the naked eye.

These microorganisms spread around us at astonishing speed. Let us give an example in that regard: According to one study, it has been calculated that a 0.5 hectare area of farm soil contains several tons of living bacteria, around 1 ton (2,204.6 pounds) of fungi, 100 kilograms (220.4 pounds) of single-celled protozoan life, around 50 kilograms (110.2 pounds) of yeast and a similar amount of algae. 2

Knowing about the properties of these creatures and entering into this world is actually of the greatest importance. People imagine that these creatures, many of which are invisible to the naked eye, are basically very simple entities; and are therefore unaware of their powerful abilities. The proponents of the theory of evolution—itself nothing more than a deception—exploit this lack of knowledge and make little reference to these organisms' complex features. They sometimes ignore the exceedingly intelligent tasks performed by bacteria, and feel no need to account for the premeditated way that a virus invades the human body.

In this book, we shall be examining how the inhabitants of the microworld reflect the superior intelligence, artistry and might in Allah's Creation, providing striking examples of the impasse faced by the proponents of evolution who seek to account for living things in terms of unconscious coincidences.

1. BACTERIA

In contrast to plants and animals, bacteria's swift reproduction and biochemical effects help maintain the equilibrium of the living world. They can live just about anywhere, for which reason they are much more numerous than any other class of organism—actually, the most numerous on Earth. The entire ecosystem depends on the activities of bacteria 3, and they impact on human life in a wide variety of ways.

Their abilities reach way beyond present-day technology. Many of them can assume a new form every day, and their numbers can reach thousands in a matter of minutes. Some prefer oxygen-rich environments, while others can live underground without oxygen. Some obtain nutrients by performing photosynthesis, while others acquire energy by breaking down organic substances. Bacteria are generally assumed to be identical to one another, but when examined, they can be seen to actually consist of very different species.

Bacteria are known as prokaryotes in the living world. Their single cells contain a nucleus and free-ranging data banks of DNA. In their rather complex structures, these creatures possess a cell membrane and ribosomes. As you shall later see in detail, the majority of the vital functions of the living things on Earth depend, on the effects of these prokaryotic cells.

Bacteria possess two cell covers. Above the inner cell membrane is a cell wall consisting of proteins, carbohydrates and fats. In addition to their cell wall, some bacteria also have a protective capsule consisting of sugar molecules. The reason for these special coverings around the cell is to protect the bacterium from outside influences. The task of protecting a human being, undertaken by our skin, is assumed by the cell membrane in bacteria. However, the protective nature of the cell membrane is incomparably more powerful than that of human skin. Due to this resistant cellular structure, bacteria are able to adapt to very high or low temperatures, thrive beneath the soil, float through the air, live in toxic chemicals or at the bottom of the ocean, and even resist radiation. The bacterial cell membrane arises and generally consists of amino acids combined with sugar and lipid plus polysaccharide.

This complex polymer substance, known as peptidoglycan, is composed of two varieties of sugar. This structure's fine, complex covering varies according to species. It is so thin that it sometimes cannot even be seen under a microscope, because it consists of a web of fibrous structures

just 1 to 3 nanometers in diameter.4 A great many of the features possessed by bacteria are still unknown, because their minute size (around 0.001 millimeter, or 0.000039 of an inch) makes it impossible to study their internal structures properly.

Contrary to what evolutionists suggest, bacteria possess, not primitive structures, but very complex ones, which certainly proves that there is no spontaneous evolution.

In addition to their cell membrane, bacteria also possess microscopic hairs known as cilia and an organelle called the flagellum, both of which lets them move. When these microscopic hairs are examined close-up, we encounter a real miracle. The flagellum—which has a different molecular structure from that comprising the bacterium's sheath and cilia—is the only organelle capable of truly moving backwards in the whole living world. The cilia hairs set up a wave motion towards from the root to the end, and thanks to the engine in its roots the fibers of the flagellum arranged in spiral (helezon) rotate like a propeller.5 The structure that enables the bacterium to move consists of two sections. In addition, instead of energy already present in the cell, a flow of acids in the cell membrane is employed as the energy source. The flagellum is a self-contained complex structure, whose organic structure consists of 240 separate proteins.

The complex structure seen in the flagellum is an example of irreducible complexity—a feature common to all living systems. The bacterium's membrane, the chemical engine mounted beneath it and the flagellum have all been created together so that the bacterium can move. Evolutionist scientists, who regard the bacterium as a simple living thing, are unable to account for its highly complex structure.

Under appropriate conditions, bacteria can double their numbers in 10 to 30 minutes. A single bacterium divides itself first in two, which two become four, then eight, and continues doubling in that way. Millions of bacteria can thus arise from a single one in 10 to 12 hours. Some varieties of bacteria are unaffected by temperature changes. They can live at -271oC (-455.8F) and adapt to environments that change from -190oC (66.2F) to +250oC (482F) in a matter of hours. Some species of bacteria are able to withstand 2,000 times the level of atomic radiation that would be fatal to humans.6 Some cause various diseases, while others serve vital roles in human and plant metabolism. Some are able to oxidize foodstuffs, by which means bacteria provide nourishment for other living things. Their millions of different functions lead to just one conclusion: This all shows that bacteria possess exceptionally detailed properties.

The evolutionist James A. Shapiro admits that that these detailed features they possess make bacteria complex living things:

Although bacteria are tiny, they display biochemical, structural and behavioral complexities that outstrip scientific description. In keeping with the current microelectronics revolution, it may make more sense to equate their size with sophistication rather than with simplicity. . . . Without bacteria, life on Earth could not exist in its present form. 7

The Australian professor of biochemistry Michael Denton expresses the inconsistency and impossibility of evolutionist claims regarding a bacterium cell, with its various effects, forming as the result of a combination of coincidences:

The complexity of the simplest known type of cell is so great that it is impossible to accept that such an object could have been thrown together suddenly by some kind of freakish, vastly improbable, event. Such an occurrence would be indistinguishable from a miracle. 8

The so-called accidental coming into being suggested by evolutionists is of course impossible. As we shall soon be seeing in detail, a single bacterium's structure and features both disprove the claim that they could have come into existence spontaneously. These organisms, described as "simple" by Darwinists—perform, in the words of the British zoologist Sir James Gray—more activities than an entire laboratory:

A bacterium is far more complex than any inanimate system known to man. There is not a laboratory in the world, which can compete with the biochemical activity of the smallest living organism . . . 9

The bacterium's superior structure basically includes a DNA molecule and few organelles. Allah has installed this laboratory and its superior technical equipment and unbounded data into a single DNA molecule, a small part of a cell that is itself invisible to the naked eye.

Now let us examine the DNA molecule, the most important part of the complex bacterial structure.

One Fact Darwinists Cannot Explain: The Structure of Bacterial DNA

The information in the DNA in a single bacterium is equivalent to 20 novels of 100,000 words each. 10

Bacteria possess not only hundreds of different features, but also DNA that exhibits a superior Creation. There are 5375 nucleotides in the DNA of the smallest known bacterium, theta-x-174.

(Nucleotides are the building blocks of the amino acids that regulate all inherited features in living things.) In a normal-sized bacterium, There may be up 3 million nucleotides.11 There are 5,000 genes in a single chromosome of the intestinal bacterium Escherichia coli, the subject of research and studies since the early 1990s. (Genes are special sections constituting the DNA belonging to a particular organ or protein.) All the features of the bacterium are encoded in these 5,000 genes.

This coded information is essential to the bacterium's survival, and its slightest change may be fatal. The length of the helix that carries this information is 1,400 microns—in a cell only 2 to 3 microns in size.12 Don't forget that 1 micron is a unit equivalent to just 0.001 millimeter (0.000039 of an inch). This data chain, the product of a special Creation, is squeezed into an organism thousands of times smaller than itself. The processes that take place inside this marvel of Creation show the existence of a perfect organization and a conscious whole.

The anthropologist Loren Eiseley offers the following observation:

To grasp in detail the physio-chemical organization of the simplest cell is far beyond our capacity. 13

Again, such comprehensive data are necessary for the life of just one cell. Bearing in mind that bacteria are spread all over the world, it is astonishing that such information is arranged with the same care and in the same order in every one of them.

Could such a system come into being by chance? Of course not. Let us have a closer look at the DNA molecule in order to appreciate this better. Dr. Lee Spetner, an expert on biophysics and on the information contained within the bacterial genome, states:

The genome can hold a lot of information. The genome of a bacterium for example, is string of a few million symbols. The genome of a mammal has from two to four billion. If you were to print those symbols in a book in ordinary type, the book for a bacterium would have about a thousand page. . . All this information is in the tiny chromosomes of each cell. 14

Similarly, in his book Darwin Was Wrong, I.L. Cohen sets out the inconsistencies and impossibilities in the theory of evolution, and the impossibility of a bacterium's DNA coming into being by chance:

Any species known to us, including the smallest single-cell bacteria, have enormously larger number of nucleotides than 100 or 1,000. In fact, single-cell bacteria display about 3.000.000 nucleotides, aligned in a very specific sequence. This means that there is no mathematical probability whatever for any known species to have been the product of a random occurrence or random mutations. 15

To replicate, bacteria employ various mechanisms. They may multiply by dividing into two, by turning into spores or by replicating sexually. These different reproductive processes are another proof of the bacteria's complex structure. Before the bacterium divides, first it divides into a structure known as a chromatin. The young bacteria make themselves ready to divide by reaching their full size within 30 minutes. During replication, an intelligently created system goes into operation, and the copying of the DNA that takes place is another example of irreducible complexity: For the system to function, all its components need to be fully formed and present at the same time. This totally undermines the basic claim of the theory of evolution, the idea of chance and gradual development. Recent research has revealed that this system is far more complex than had previously been thought.

For example, it has been shown that one reaction-regulator protein known as CtrA coordinates DNA replication within the cell of the bacterium C. crescentus. . CtrA, controls and alters a great many biological structures while carrying out cell division. Interestingly, CtrA is itself controlled by two elements known as phosphorylation and proteolysis. In other words, systems that appear to act independently in this system actually work together in a coordinated manner for the task to be performed. Complex processes such as replication of DNA and chromosome division must all be fully coordinated during cell division. The failure of any one system will lead to a halt in the cell-division process and the death of both new-formed cells. The presence of factors like CtrA to ensure coordination inside the cell is an important proof of the irreducible complexity of bacterial cell division.

We encounter a similarly complex structure in the bacterium E. coli. Its cell division system depends on a structure known as FtsZ—another example of irreducible complexity. E. coli too contains many side components linked to the system, and if any one is removed or its concentration levels altered, cell division will be impaired. Therefore, there is no way this system could have emerged gradually by means of natural selection.

The workings of many free-living bacteria shows the existence of a common nucleus cell-division system. In addition, a protein that separates the two DNA strands also forms part of this mechanism. 16

As can be seen from these examples, bacteria are not the simple, primitive living things that evolutionists would have us believe. Like all "higher" living organisms, bacteria possess complex structures and mechanisms, and the processes that take place inside these single-celled creatures work in considerable harmony. Bacteria possess the ideal

structures for the tasks they perform, and the evolutionists' error stems from their comparing a bacterial cell to a structure like the human cell, equipped for very different purposes. Only through such faulty comparison does the bacterial cell emerge as more primitive than the human one, because each system possesses the maximum complexity within itself. Each cell is merely differentiated according to the tasks it undertakes.

An article titled "The Artistry of Microorganisms" by Eshel Ben-Jacob and Herbert Levine, known for their studies into bacteria, appeared as the cover story of Scientific American magazine no. 1098 in 1998. They reveal another little-known miracle regarding bacteria and other single-celled organisms. Each of these living things, though invisible to the naked eye, possesses the most aesthetic appearance. Microorganisms such as diatoms, bacteria and plankton in their various shapes and colors turn the microscopic world into an art museum.

It appears that these aesthetic forms emerge not as the result of random coincidences, but according to various laws that apply within those creatures' structures. Eshel Ben-Jacob and Herbert Levine make the following comment:

Simple bacteria, coping with adverse growth conditions, show unexpected sophistication. When examined closely this behavior is much more impressive. It seems as if the bacterial colony can not only compute better then the best parallel computers we have, but can also think . . . 17

As you have seen, bacteria and other microorganisms are living refutations of the myth related by the theory of evolution because it is unable to account for life in the first place. These organisms possess DNA, a data bank, but evolutionists are unable to explain where this came from. These organisms possess complex systems that function together, but evolutionists cannot explain how complex systems came into being. These organisms possess aesthetic shapes like snowflakes, but evolutionists are unable to explain the presence of attractive forms in these blind entities' structure. Despite the presence of so many mysteries and unanswered questions, evolutionists have produced myths and scenarios as a result of their dogmatic mindsets. Yet none of these bear any relation to the scientific facts. Without doubt, the intelligent artistry manifested in a single cell is a wonderful opportunity to see the miracles created by Allah, Whose omniscience endowed a microscopic structure with these wondrous features. One verse states:

He is the Knower of the Unseen, Whom not even the weight of the smallest particle eludes, either in the heavens or in the Earth;

nor is there anything smaller or larger than that which is not in a Clear Book. (Surah Saba', 3)

The Consciousness Exhibited in a Single Cell

Bacteria are present everywhere, all over the world. There may be billions of them, of millions of different species, in a single garden. Bacteria may display various effects depending on their locations, yet we remain generally unaware of most of them because only under an electron microscope can we see the superior intelligence manifested in the microworld.This tiny, yet widespread world that we cannot see directly consists of responsive entities that perform their responsibilities flawlessly, take precautions when danger looms, and carry out the most complex chemical processes. Each bacterium has been perfectly created as the work of Allah. Let us now examine the features of this superior Creation, under various headings.

Bacteria Produce Spores to Preserve and Reproduce Themselves

Bacteria take many different forms, whose appearances vary according to their environment. Many of them sporulate—that is, develop resistant forms known as spores, which can withstand excessive heat, cold or dryness. That's why some bacteria are so difficult to destroy. So what is this thing we refer to as sporulation?

Bacteria can thrive under very different conditions according to their species, but begin dividing when conditions are impaired. Under normal conditions, this division results in two offspring with exactly the same inherited features as the original cell. However, when conditions are disrupted or nutrients become limited, bacteria realize that the environment has become more difficult, and take precautions to ensure their descendants' survival. Division into two still takes place, but now, cells emerge that are not identical.

The reason for this inequality is the fact that only one of the two cells will live.

The larger, main cell absorbs its sibling, just like a protector. For 10 hours it will use all its energy to nourish it and permits the formation of a special protein sheath that will assist the protection of the smaller cell. In this way, the bacterium that develops inside one of the two parts forms a strong individual able to look after itself. The other dies, having given all its protective features to its sibling and turns into a protective sheath. This resistant structure that results is referred to as a spore.18 Therefore, in

addition to normal division, bacteria are easily able to disseminate themselves all over the world by means of such spores.

Here we are faced with an example of a special Creation that single-celled living things possess to ensure their descendants' survival. A bacterium that senses that the prevailing conditions are not suitable for life immediately realizes it is time to divide and acts in a self-sacrificial manner. The main cell constituting the spore has no qualms about becoming a protein sheath. It cannot foresee the survival of its line or know beforehand how to ensure that survival. But can bacteria make such a decision? How is the bacterium selected that will have to die in the process? How does it bacterium know that conditions have worsened and that the other bacterium needs to be strengthened accordingly? By what division of labor, and most importantly, with what consciousness do they do this? The way that a living thing too small to be seen with the naked eye engages in such rational and altruistic behavior, acting with such astounding determination, is sufficient evidence that it was created. It merely acts on the inspiration placed in it by Allah.

By this conscious process known as sporulation, bacteria can easily enter a wide range of habitats and spread across wide areas. Indeed, bacteria are even found in radioactive uranium mines! In much the same way that living bacteria have been found in bricks on the facade of the Temple of Luxor, built in Egypt 3,400 years ago, 200-million, 320-million and even 720-million-year-old living bacteria have also been discovered in blocks of rock salt. Bacteria have even been encountered at heights of 20,000 meters (65,620 feet) above sea level. 19

The most astonishing example is the bacterial spores from a 25-million-year-old fossil bee, trapped in pine resin, that have survived down to the present day. These spores, extracted under sterile conditions in the laboratory, were placed in culture and began growing and multiplying even after such an enormously long period of time. 20

The sporulation process is a method of protection employed by nearly all microorganisms. When conditions become unsuitable, some of them use sporulation to rise into the air to protect themselves among the clouds. The atmosphere contains a great many minute spores hoping to spread or seek protection. These spores that remain in the dry cold air live in a state of literal suspended animation, and descend to earth again with the rain produced by clouds. On their return, they may establish new colonies. Clouds are actually full of tiny, living microorganisms. As they crystallize and rise up with evaporation from the ground, they carry with them

nutritional compounds such as methane, phosphate, carbon, and sulfur dioxide. 21

Recent research has revealed another fact that has amazed scientists. One group of scientists researching in the Austrian Alps discovered colonies of bacteria living in the clouds. It was already known that bacteria were borne by clouds, but this new study also revealed that these colonies lived and bred in them. These same scientists also noted that these bacteria could cause rain or other climatic changes. It has also been reported that algae-like microorganisms that lived in the seas long ago played a regulatory role in keeping the climate stable by producing a gas called dimethyl sulphide (DMS). This gas enters into a reaction with oxygen at sea level and forms minute, solid particles. This sulfate layer concentrates water vapor and thus forms clouds. Finally, these clouds keep the Earth cool by reflecting solar radiation.22 In a statement to New Scientist magazine, Birgit Sattler of Innsbruck University said that it was previously thought that bacteria could not live at such elevations, and so these findings came as a complete surprise. The freezing cold, high levels of ultraviolet rays and lack of nourishment had led scientists to believe that life would not be possible up there. Yet it was thus demonstrated that bacteria can live in the clouds, as they do everywhere else.

Differently-shaped bacteria in 1,500 different sizes were identified in each specimen of cloud water taken from a meteorological station near Salzburg. According to scientists, high levels of bacteriological activity in clouds can affect the climate, depending on the their level of production or consumption of alcohol, organic acid and other substances. Scientists are continuing to investigate how bacteria live in the clouds, what they feed on and what compounds they produce. 23

How can a microorganism suddenly adapt to the highest levels in the atmosphere, where there are such very different conditions? How does it know that it needs to be protected there, and why does it select such a difficult and complex method as rising through the air? Even more interestingly, how does it manage to do so? How did it obtain the ability to control crystallization and air currents, and how does it know that the clouds will be able to protect and nourish it, and that one day when it starts raining, it will return to earth in a healthy state? How does this single-celled creature actually manage to do this? How do these microorganisms manage to do this, despite having totally different structures and features? Could a single-celled microorganism think of all this, learn by experimentation and inform all other members of its species? That being of course impossible, all these details once again point to the magnificent artistry manifested by

Allah. It is Allah Who, in addition to creating the bacteria that carry out all these activities, also created the air that raises them, the clouds and atmosphere that shelter them, the rain that brings them back down, and the Earth that enables them to multiply and spread. For that reason, all these details have been created to be totally compatible with one another, and have remained in that state of equilibrium for millions of years.

Allah states in the Qur'an that:

In the Creation of the heavens and Earth, and the alternation of the night and day, and the ships which sail the seas to people's benefit, and the water which Allah sends down from the sky—by which He brings the Earth to life when it was dead and scatters about in it creatures of every kind—and the varying direction of the winds, and the clouds subservient between heaven and Earth, there are signs for people who use their intellect. (Surat al-Baqara, 164)

Bacteria Perform Photosynthesis

We generally look at bacteria as germs that reproduce very quickly in our bodies or in food that has spoiled. Yet they also possess a great many features essential to life and with the organelles inside them, perform exceedingly important activities to maintain the equilibrium on Earth.

Bacteria play an enormously important role in supplying countless vital elements, from the air we breathe to the food we eat, and from the views around us to the antibiotics we use. In fact, every bacterium is an expert chemist, using nature as a laboratory. Chemical formulae are foreign to most of us, and indeed, it is impossible to understand chemical reactions without special training. Bacteria also deserve respect and amazement, for performing reactions of vital concern to our lives.

Even if we are even unaware of it, a chemical laboratory that works constantly and maintains our lives enfolds all of nature. This laboratory's most important activity is to provide oxygen and food for living things, and then to clean up waste products or produce new beneficial products that living things can use. During the course of this difficult and complex duty, many complicated chemical reactions are repeated, some of which are not yet been fully understood, some of which remain undiscovered, and only some of which have been replicated in modern laboratories.

Bacteria head the list of the chemists serving in this giant laboratory. The most important functions are carried out by these unicellular machines, regarded as simple and primitive by evolutionists. For bacteria, reactions

that even the cleverest chemists cannot solve, and processes that not even the most advanced technology can replicate, are child's play. The scientists who discovered photosynthesis—the process of producing nutrients using carbon dioxide from the air and water—were amazed by it, and imagined that by decoding the system, they would find an answer to all the problems facing mankind. Yet decades have since gone by, and still the system is not fully understood and has not been imitated. However, this miraculous reaction is just one of the daily tasks that bacteria have performed , non-stop, for billions of years. With photosynthesis, these living things break down carbon dioxide in the atmosphere and give off oxygen, thus meeting life's most urgent need. Moreover, they possess the ability to use light energy from the Sun in order to separate carbon molecules from CO2. The way that carbon obtained in this way represents the basis of Earth's carbon-based life forms. As you know, life is based on carbon. All the basic organic molecules such as amino acids, proteins and nucleic acids are formed by carbon atoms combining with certain other atoms. No other element in nature can replace carbon. (For details see, The Creation of the Universe by Harun Yahya, Al-Attique Publishers Inc., Toronto Ontario, 2000) Therefore, Allah has made all of life dependent on organisms that perform photosynthesis. By Allah's will, the greatest share of this process belongs, to bacteria.

By the phenomenon of photosynthesis, plants can make direct use of solar energy to turn out complex organic molecules for other living things to use. Such a transformation is necessary because human beings and animals lack any mechanism by which to make direct use of the Sun's energy. They can obtain that energy only in synthesized form as the result of photosynthesis performed by green plants and microorganisms.

Species known as cyanobacteria produce more than half of the oxygen in the atmosphere.24 The mechanism these bacteria use is very similar to that used in plants' chloroplasts. The great majority of cyanobacteria contain only chlorophyll. The energy they produce from sunlight is stored in the form of simple sugars. The amount of sugar and oxygen formed by means of photosynthesis varies between an estimated 150 and 200 billion tons (330,700,000 million and 440,900,000 million pounds) a year.25 This sugar and free oxygen that form is essential for living organisms on Earth to survive and grow, and also to respire.

Cyanobacteria assume an important role in stabilizing the concentration of oxygen in the atmosphere. These bacteria are very small in size, but their numbers are very great. There are more than 100 in a liter of

water, and they represent 10% to 20% of the productivity of the oceans. Despite being too small to see, they exist over a large part of the world. Their enormous numbers are of the very greatest importance due to the energy they produce with photosynthesis.

The particularly complex and delicate mechanism of photosynthesis is is not yet fully understood. Also, the process is one of the best examples of irreducible complexity. In other words, in order for photosynthesis to take place, a great many special structures have to be present at the same time and work together in a coordinated way. For example, in photosystem I, which evolutionists maintain to have evolved first, reaction centers and antennae were brought together to catch the rays from the Sun. Photosystem I had been regulated to trap only a particular wavelength of light. Stimulated by photons with a wavelength of 700 millimicrons, the antennae contain trapping chlorophyll molecules known as K1 a1. To support these antennae, there are also assistant pigments such as carotenoid.

Moreover, photosystem I is a joint activity, performed by an electron chain ready to transfer the trapped energy, a kind of power station used to break down this energy and water, and a separate chemical factory taking in carbon from the air with substances separated from water to produce nutrients. The lack of just one of the components making up this system, still not yet fully understood, would render it totally useless.

For example, energy cannot be absorbed without antennae. Without the electron chain, H2O atoms could not be broken down. If the assistant pigments failed to share the high electrical burden, then intense energy levels would break down the entire structure to. The subject can be more clearly understood if we think of this structure as a factory and the electrical power station that runs it. The factory cannot produce anything without electricity, raw materials and workers. Similarly, the lack of just one of these elements will rule out any possibility of photosynthesis at all. Neither would the components coming into being one by one be any use. Even if we assume for a moment that the very complex photosynthesis antennae did come into being by chance, clearly they would be unable to transmit the trapped energy and be torn apart. The Turkish evolutionist Professor Ali Demirsoy comments:

Photosynthesis is a most complex phenomenon, one which appears impossible to emerge in the organelle inside a cell. That is because it is impossible for all the stages to form at once, and meaningless for them to do so one by one. 26

In conclusion, this system could not come about by stages as evolutionists maintain. Its irreducibly complex structure requires all its components to be present and fully functioning at once. This, in turn, shows that the mechanism was flawlessly created at a single moment with all its separate parts.

A process like photosystem, which cannot be replicated by modern-day technology, must have been created as a whole. Not just the system that makes photosynthesis, but the Sun ideally suited to it and the atmospheric environment was also created as a whole, with the same superior knowledge and intellect.

The explanations made by the proponents of the theory of evolution regarding this mechanism are exceedingly illogical, often ridiculous. According to evolutionist claims, primitive bacteria in the primitive environment began using up the foodstuffs around and suddenly, somehow began to produce their own food. Billions of years ago, an imaginary bacterium, discovered how to obtain food from the Sun via a mechanism that mankind has been unable to do even with the advantage of 21st century technology. This most talented bacterium established the basis of photosynthesis, and by allegedly evolving in some manner, produced plants that mde possible the free oxygen and foodstuffs on Earth. Thanks to this fortuitous discovery, the wide range of other species assumed their present forms. The fact is that a single cell possessing a system capable of providing such basic needs as food and oxygen essential for human life, the development of countless chemical processes inside it and its being a part of the ecological balance can never be explained in terms of chance and unconscious events. Allah has specially created these living things to carry out this important process. Bacteria prove the existence of a superior power that created them to be flawless, in other words of Allah. The superior intellect and artistry of Allah are manifested in the functions they fulfill. All these, of course, are just a few of the examples that show the impasse facing the theory of evolution, how it is entirely based on false evidence, as well as the absolute existence of Allah.

Bacteria Perform the Nitrogen Cycle on Earth

In the same way that living things require oxygen and CO2 in order to survive, they also need nitrogen (N2) to grow. Nitrogen is present at a level of roughly 15% in the structure of the nucleic acids, proteins and vitamins in the body.27 It represents one of the ba sic building blocks of life. Around 78% of the atmosphere consists of nitrogen gas, but living things cannot

absorb this nitrogen in the air, despite their need of it. It must somehow be turned into a form that living things can use, and then be recycled into the atmosphere so that it does not run out.

This need too is met by microscopic bacteria.

Plants need to absorb nitrogen from the atmosphere, since they are unable to use it in gas form. Nitrogen is transformed into nitrite by bacteria, and nitrite into nitrates by different bacteria, thus making it capable of being used by plants. But how does this cycle begin?

Nitrogen reaches the Earth in various forms. Atmospheric nitrogen returns to Earth in the form of nitric acid in rain, as the result of phenomena such as lightning. Nitric acid is turned into nitrates by bacteria in the soil, and plants are able to absorb it in that form.

Another cycle is the direct absorption of nitrogen from the air into the soil. Bacteria in the roots of certain plants such as peas and beans, and other legumes take the nitrogen in the air into the soil. At this stage, we encounter a most superior Creation. Proteins, nucleic acid and the majority of organelles all need nitrogen, the most important element in the development of living organisms.. One of the world's most beneficial partnerships exists between plants, which need nitrogen in order to grow, and the bacteria that meet that need. Plants' roots give off special nutrients to attract bacteria. Later, the bacteria enter through special gaps that open in the roots, settle there, and establish nodules by multiplying to enormous levels.

We are indebted to the nitrogen cycle, essential for the maintenance of ecological equilibrium, for the greater part of the vegetables, plants and cereals we eat. As bacteria, described as "simple" by evolutionists, implement the nitrogen cycle, they work like living chemistry factories, and ever since the day they were first created have been performing chemical reactions that may not mean very much to those not closely involved with chemistry. The resolution of the nitrogen fixing reaction summarized below in chemical terms represented a major success for scientists:

$N2 + 8H+ + 8e- + 16\ ATP = 2NH3 + H2 + 16ADP + 16\ Pi$

But for this reaction to take place, there needs to be a second support reaction like photosynthesis, respiration or fermentation. These formulae, so baffling to most people, are ordinary everyday work for bacteria. Of course they have undergone no specialized chemical training in order to carry out these chemical processes. Every new bacterium that enters the world is equipped with knowledge and materials that could only belong to a specially trained chemist. In addition, these processes are not limited to bacteria in plant roots. Despite being found in very different places and

having very different structures, nitrobacteria, beijerinckia, klebsiella, cyanobacteria, clostridium, desulfovibrio, purple sulphur bacteria, non-purple sulphur bacteria, green sulphur bacteria, rhizobium frankia, azospirillum and a great many more carry out the same reaction, with the same data and programming, in a prefect manner. Furthermore, with the different systems and reactions inside them, these bacteria exhibit structures that are not simple at all.

For example, the nitrogenase enzyme complex that bacteria use during this process is exceptionally sensitive to oxygen. When deprived of oxygen, it stops its activity, for which reason proteins enter into reactions with iron compounds. This represents no problem for anaerobic bacteria, which are capable of living without oxygen, but a major hurdle for bacteria such as cyanobacteria that produce oxygen by photosynthesis. and azotobacter that live freely in the soil. However, these other bacteria have been equipped with various mechanisms to resolve this difficulty. For example, azotobacter species possess metabolisms with the highest known respiratory rate among all organisms, thus keeping oxygen levels in the cells low and protecting the enzyme. In addition, azotobacter species produce high levels of extracellular polysaccharide, compounds consisting of multiple sugars and especially starch used in the formation of the cell wall. Bacteria preserve water in the sticky fluid formed by these compounds and restrict the level at which oxygen is disseminated in the cell. Bacteria like Rhizobium that fix nitrogen in plant roots, possess molecules such as leghemoglobin that consume oxygen. Leghemoglobin serves the same purpose as hemoglobin in animals, regulating oxygen for the node tissues. Interestingly, leghemoglobin is found only in the root nodes and produced only after a plant-bacterium relationship is established. Bacteria that live alone or plants that live without bacteria are unable to manufacture it. 28

The enzyme nitrogenase, responsible of preserving the nitrogen cycle, breaks down when deprived of oxygen. In that case, the systems that prevent oxygen from reaching the enzyme, and the organisms that produce them must have come into being at the same time as that enzyme. Otherwise, the moment that the enzyme nitrogenase formed, oxygen would have broken it down. The theory of evolution is unable to admit this, because it holds that organisms can form only through gradual mutations. Again according to that theory, either the enzyme nitrogenase or the systems that consume oxygen must have appeared first—yet that illogical sequence that permits no system at all to form. No system can control oxygen in the absence of the enzyme nitrogenase.

When these bacteria die and are broken down, ammonia is released. At the same time, saprophyte bacteria break down proteins in animal and plant remains and turn them into ammonia. The ammonia, formed in the soil in this way, is converted in the same way into nitrite by nitrite bacteria, and then into nitrate by nitrate bacteria. By this process, known as nitrification, the nitrogen cycle is completed.29 Nitrate is a form of nitrogen that plants can absorb. This nitrate also reaches human beings and the animals that consume plants for food. By these means, therefore, the needs of all living things are met.

Creating artificial fertilizer containing nitrates gave rise to one of the major branches of industry. Combustible hydrogen, used during this dangerous and complex process, is heated at very high pressure. Although chemical factories spend great efforts on this costly and dangerous work, bacteria perform the same process at room temperature and normal atmospheric pressure. Some researchers now think that they have unraveled part of the secret behind bacteria's success.

Another group of scientists have adopted bacteria as a model in producing free hydrogen, a clean and cheap fuel. According to an article in the 8 October 2001, edition of Nature magazine, scientists believe they have imitated bacterial enzymes that turn cheap acids into hydrogen. Unlike other fuels, hydrogen does not harm the environment when burned. Thomas Rauchfuss, and his colleagues in a research team affiliated with Illinois University, think they will be able to copy and use these secret formulae of bacteria. 30

These bacteria possess hydrogenases, enzymes able to produce hydrogen from acids. Scientists are trying to produce systems that can replicate this perfect mechanism. But having striven in the same way for years to replicate the photosynthesis process performed by bacteria, they have not yet achieved any success. Evolutionists regard bacteria, as primitive, yet their complex systems that have proved impossible to duplicate despite all the means of present-day technology. Bacteria have possessed secrets that have guaranteed life on Earth for billions of years. The reason is that they are the flawless work of Allah, with His superior intellect. Allah displays His astonishing artistry in such a magnificent ways so that human beings may witness it, and reflect on what they see.

In order for plants, and therefore for all other living things on Earth, to survive, there have to be bacteria to maintain the nitrogen cycle. If the nitrogen taken out of the soil is not immediately replaced, life will soon come to an end. This process carried out by bacteria adds some 50 tons (110,200 pounds) of nitrogen to the soil each year.31 Since all organisms

directly or indirectly depend on photosynthesis to obtain energy, they also depend on nitrogen, the most fundamental element, for photosynthesis to take place.

These examples send out a clear message. Nitrogen must be turned into a specific form for the nourishment of all living things. That transformation must cover the whole world and be supported by different features. When we see in nature is not a flawed system that has emerged tshrough blind chance, but one that has been created right down to the finest detail, in the light of a specific objective. Bacteria have assumed the main role in this process, as living machines especially created for the job, rather than as primitive forms that emerged as the result of random evolution.

Rather than invent illusory scenarios based on their outdated ideology, evolutionists now need to provide scientific explanations of how such complex creatures and variety came into being at the same time, equipped with such highly advanced information. Yet since they can never give such an explanation, it is amazing that they still persist in making their claims.

Allah reveals this about such people in the Qur'an:

Then inquire of them: is it they who are stronger in structure or other things We have created? We created them from sticky clay. No wonder you are surprised as they laugh with scorn! (Surat as-Saffat, 11-12)

Bacteria Produce Foodstuffs through Fermentation

Did you know that the yogurt and cheeses you eat are the work of bacteria? You may be unaware that a great many foods on your table are provided by bacteria, ready-made on your behalf. The cheese you eat is prepared by bacteria, as well as the pickles that go with it so well.

You have already seen that species of bacteria can live in a great many different environments and conditions. Basically, all that the bacteria that produce cheese and yogurt really want is to obtain energy for carrying on with their lives. For them, the closed environment they live in is important, because these species of bacteria breathe without oxygen. To put it another way, while other bacteria obtain energy by breathing, these bacteria obtain energy by breathing by breaking down organic compounds around them and as a result, release a great many substances. These byproducts acidify the foodstuffs containing these bacteria, or else transformed them into alcohol, or else bubbles of carbon dioxide are

generated. In this way, vegetables become pickled, and sugars are transformed in a process known as fermentation. 32

Fermentation has many more uses than just giving us delicious things to eat.

Once again, bacteria perform a most important essential function, by increasing the variety of foodstuffs by means of fermentation. At the same time, during the fermentation process, bacteria release various minerals and synthesize vitamins that are exceedingly beneficial, which is why yogurt and cheese are so good for us. It is also thanks to bacteria that these products provide therapeutic effects on the intestines and a great many digestive disorders, helping to maintain the body's equilibrium.

For example, the foods recommended for cholesterol problem are generally fermented ones. The reason for this is that microorganisms are able to regulate the level of cholesterol in our bodies. 33

Bacteria make enormous efforts on our behalf. In fact, all they want is to be able to survive with the means in their possession. While these microorganisms live on through this magnificent equilibrium created by Allah, they also aid human beings in a great many ways. The way that a bacterium produces foods so beneficial for us shows just how important that equilibrium is. There is no doubt that a bacterium did not have to live in our food, obtain energy from it or prove harmful or beneficial to us. We might never have been aware of these bacteria, a vital component of our lives. In fact, Even if you are not aware of it, we take a great many bacteria into our bodies through foodstuffs. However, even as bacteria meet their own needs by entering the food we eat, they also create brand-new and health-giving substances for us in a way impossible by any other means. Behind the benefits imparted by bacteria is the obvious fact that Allah has created immaculate and very different systems to let us see the evidence of His superior and incomparable Mind.

Other Activities of Bacteria

There are very definitely other important features in bacteria, which make such a major contribution to life on Earth by making photosynthesis, protect our bodies, give rise to the most important life cycle on Earth, but which are so small as to be invisible to the naked eye, addition to displaying the superior intellect and artistry in their Creation. Bacteria also represent the source of the world's iron reserves, and even of the iron in our bodies.

Some bacteria possess the ability to separate out the iron dissolved in sea water, consuming the iron molecules and concentrating them in their own bodies. The iron thus concentrated then forms layers on the sea bed.

Over the course of millions of years, these layers are raised up into mountains and form enormous veins of iron oxide. When these layers are dug up, a large quantity of iron molecules become released into the air. Then, all unknowingly, we breathe in this iron dust—absorbing molecules of the greatest importance to us. Because of the tiny iron molecules that enter our bodies, our red blood cells can produce the hemoglobin that carried oxygen to every cell in our bodies. 34

This chemical effects of the bacteria that form this underground resource is not limited to isolating iron. Oil, one of the world's vital needs, is also largely the product of bacteria. As with the process of fermentation, anaerobic bacteria (which breathe without oxygen) meet their needs for energy by breaking down the organic compounds around them, leading to organic deposits that formed underground millions of years ago transforming into crude oil.35 The idea that bacteria permit the production of oil may come as a surprise but the way that these microorganisms work non-stop for several million years36 is actually evidence that they were created in the interests of human beings, meeting needs whose lack would leave us quite helpless.

Recent research on the ocean floor has revealed another hitherto unknown fact about bacteria. As we know, bacteria represent the main link in the food chain by means of photosynthesis, nitrogen fixation and fermentation. Studies carried out on the ocean floor 300 meters (984,25 feet) beneath the sea have revealed another hitherto unknown fact about bacteria. Newly discovered bacteria live hundreds of meters beneath the sea, feed on rocks in the sea bed, and there perform a fundamental food function for life.

Hubert Staudigel, of a team affiliated to the University of California Scripps Institution of Oceanography, stated that the sea bed was covered with these bacteria, and that no location was without them.

These organisms that break down rocks contribute to the food chain in the sea by breaking down necessary chemical substances, performing a fundamental function in maintaining life at the bottom of the ocean. 37

Bacteria in lakes are also responsible for preparing essential minerals and nutrients over the summer months. As plants and animals in lakes become active again, having lain dormant throughout the winter, all the minerals and nutrients they now require have been released by bacteria over the cold months. Over the winter, bacteria break down organic wastes —dead animals and plants and other waste products that sink to the bottom —into their component minerals. They thus clean the lakes of debris, while

various mineral products collect at the lake bottoms.38 When living things wake up in the spring, they find their nutrients ready and available.

Bacteria perform not only a kind of spring cleaning, but prepare sufficient food for the life that re-awakens every spring. Allah, Who has unconditional mercy on all the living things He creates, has made bacteria responsible for sustaining the countless different species in lakes.

Bacteria are quite unaware of the benefits they impart to other organisms, nor do the living things that come to life again in spring wonder as to the origin of their nutrients. They merely submit to Allah, their Creator.

Perhaps the most valuable commodity that underground bacteria help isolate is gold. 2 miles (3.2 kilometers) beneath the surface, these bacteria live in veins of gold and work like alchemists secretly manufacturing gold. As they feed on rocks, they accelerate the sedimentation of microscopic particles of gold under the ground.39 This process is very slow; in fact, the vital functions of bacteria underground are much slower than those of bacteria on the surface. A normal bacterium divides every 3 to 4 hours, whereas these underground bacteria divide once every 100 years! These organisms can live for millions of years without having any contact with the surface40 —major evidence that these bacteria in question were specially created to refine gold, an instructive phenomenon that shows Allah's flawless Creation. Bacteria change their rate of reproduction according to their environment. Certainly no single-celled creature behaves in a conscious manner. It is Allah, the Omniscient, the Most Intelligent of all intelligent beings, Who inspires their behavior and calculations.

Bacteria in Beneficial Symbiotic Relationships With Other Living Things

By entering the bodies of a great many living things, including human beings, bacteria provide direct or indirect advantages for life. They even serve a purpose in the digestive systems of termites, some of the smallest insects that can be seen with the naked eye. Termites cannot digest cellulose on their own. They need bacteria to help them in this process, and there are some 2.7 million bacteria in the stomach of a single termite.41 In the same way, bacteria also permit ruminants—cows and other four-footed ungulates—whose metabolisms are also unable to digest cellulose, to do so successfully.

Bacteria live everywhere in the healthy human body. According to various estimates, there are some 10 million bacteria on every square centimeter of human skin. For example, we know that 80 different species live on the tongue alone, and that the number of bacteria expelled from

human body ranges between 100 billion and 100 trillion. Some 10 billion organisms live on a square centimeter of the human intestine. 42

Professor of microbiology Mark Pallen, of Queen's University in Belfast, says this about the bacteria in the healthy human body:

There are some 80 different species in the mouth alone. Research performed at the Jouy-en-Josas Ecology and Physiology Laboratory in France revealed 80 kinds of bacteria in the intestines. It is difficult to give an exact figure for the micro-organisms living in the body, but we may say that some 200 kinds are involved in keeping the body healthy.43

This number of 200 that Mark Pallen cites is the number of species of microorganisms in the body. Their total numbers are in the millions. Each species of this enormous community possesses various functions in the body, of which we generally live completely unaware. But they are active every hour, every minute, on our behalf.

Many living things enjoy such symbiotic relationships with bacteria. Let us give a few examples.

Examples of Bacteria's Shared Lives

Bacteria enter into mutually beneficial relationships with plants as well. For example, bacteria with nitrogen-binding properties live in the roots of clover and of peas. Any plant deprived of nitrogen will die sooner or later. For that reason, the bacteria living in nodules in the roots are so important. Why do these bacteria prefer peas? The reason lies in chemical communication among the two species. Symbiotic bacteria encourage the formation of small nodules in the roots by activating certain genes in the plant. The bacteria then use these nodules as shelters. In return, the plants acquire an endless supply of nitrogen. 44

Another symbiotic relationship exists between the puffer fish and intestinal bacteria. Porcupine fish possess an unusual poison known as tetrodoxin, which is produced by the bacteria living in the fish's intestines. Although the greater part of this toxin is found in the liver, intestine and other internal organs, it spreads all through the fish's flesh. Some of it even enters the muscles. Anything that eats a porcupine fish is therefore exposed to a grave danger. Predators aware of this danger avoid eating it.45 In turn, this contribution from the bacteria prevents them from falling prey to other fish.

Of course, the poison that poses such a threat to other fish inflicts no harm on the porcupine fish itself, despite being spread throughout its entire body. This shows a flawless structure specially created by Allah for the fish's protection. That other fish are aware of the danger and try to avoid the

porcupine fish, and that the bacteria have developed such a defensive weapon, show that Allah created these two species to be compatible with one another, is an example of His superior Creation.

Bacteria also enjoy an interesting relationship with tube worms, a single gram of whose inner tissues can contain 100 billion bacteria. The red hairs of tube worms are filled with blood carrying not oxygen, but hydrogen sulfate for the bacteria to feed on. In return, the bacteria oxidize the hydrogen sulfate, and turn the resulting carbon dioxide into carbon compounds that nourish the worms.46 The relationship between the two is based on an ex change of nourishment: While the worm feeds the bacteria, the bacteria produce food for the worm.

Another marine worm, Riftia pachyptila, needs bacteria for digestion. This species of worm has no digestive system of its own.

It used to be thought that this invertebrate lacking a digestive system absorbed organic substances dissolved in sea water by means of its skin. However, it was soon realized that the surface area of its skin is too small in proportion to its volume for it to possibly feed in this way. In 1981 the astonishing discovery was made that the worm actually fed in a normal way, but that its digestion was actually performed by bacteria. The cooperation between the worm and the bacteria is indeed most practical. The water the worm takes in through its gills is rich in sulfur and oxygen, substances carried by its bloodstream to where the bacteria can make organic compounds. The waste materials of metabolisms such as substances containing nitrogen and carbon dioxide are reabsorbed by bacteria and turned into nutrients.

The worm's metabolic wastes, such as carbon dioxide and nitrogenous substances, are taken up by the bacteria and again turned into food. Under normal conditions the sulfurous hemoglobin resulting from these chemical processes should be unable to transport oxygen and should have a toxic effect on the worm's respiratory enzymes. Yet this problem has been resolved thanks to a special Creation: a protein in the worm's stomach that protects hemoglobin by binding to sulfur.47

The empty space in the worm's body provides room for bacteria, the foodstuffs produced by the bacteria to nourish the worm, and the worm's waste products allow the bacteria to thrive. Meanwhile, the enzyme produced as a result of these processes prevents the worm from being poisoned.

The many-faceted cause-and-effect relationship manifested in this small example of symbiosis points to a single fact that Allah reveals in a verse:

Everything in the heavens and Earth belongs to Allah. Allah is the Rich Beyond Need, the Praiseworthy. If all the trees on Earth were pens and all the sea, with seven more seas besides, was ink Allah's words still would not run dry. Allah is Almighty, All-Wise. (Surah Luqman, 26-27)

Bacteria Produce Light for Nocturnally Hunting Fish

There is a mutually beneficial relationship between the bob-tailed squid (Euprymna scolopes) and luminescent bacteria (Vibrio fischeri), which live in a fold beneath the squid's mantle. This region is known as the squid's luminous organ.

The squid spends its days hidden beneath the sand in shallow waters. When night falls, and it emerges to hunt, the bacteria in its luminous organ begin emitting light. This light enables the animal not to be seen among the night lights and also prevents its enemies from recognizing it. Scientists investigating how the bacteria affected the formation of different tissues discovered that there was a special tissue in the squid's light organ to allow the V. fischeri bacteria to settle inside its body and thus provide an ideal habitat for them. 48

Any light represents a danger for the lantern fish, which also hunts at night. Light will lead to predators identifying the fish, and to let its own prey escape. For that reason, the lantern fish tries not to be visible when there is a lot of artificial light around. When the lantern fish is certain that the night is dark, however, it sets out to hunt down its prey. Its major aid in catching plankton and small crustaceans in the dark is its own light source. The source of the lantern fish's light is semi-circular organs beneath its eyes. These organs are filled with bacteria that emit light, while feeding on oxygen and sugar in the fish's blood.

The fish can turn its light on and off, and can also shine it in the direction it wishes when hunting. This light is so strong that it can be seen underwater from 30 meters (98.43 feet) away. Indeed, the light from a single lantern fish is sufficient to illuminate a small room. These bacteria give off such an effective light that the organ continues to shine even after the fish has been caught and killed. 49

Another bacterium with the same capacity provides light for the pineapple fish (Cleidopus gloriamaris), which takes its name from the armor-like covered scales covering its body. The bacteria find a suitable

place for themselves inside the fish's body. In finding food and shelter for themselves that the fish provides, they emit light that helps the fish to hunt at night and find its way. The same sort of relationship can be seen between bacteria and the pony fish (Leiognathus Nuchalis), which has two glands filled with luminescent bacteria at the rear of its throat. With the help of the bacteria the fish can turn this light on or off when necessary, or else appear totally bathed in light.

Clearly bacteria cannot reason that living inside another species can bring them benefits. Nor can they select an appropriate fish and install themselves in its body, coaxing it to make the needed anatomical changes. Yet what we are dealing with is only a bacterium, and it would be useless to look for the source of this apparent intelligence. Any cooperative system always indicates an intelligence that produced it—namely, the superior mind and might of Allah, Who created it and brought it into being.

MICROORGANISMS of Use to Man
Intestinal Bacteria

Your intestines contain a miniature ecosystem that includes various species of bacteria. Each of these varieties performs a different function, from digesting foodstuffs to absorbing vitamins. The main species of bacteria that dwell in the intestine are known as Escherichia coli. As you have already seen, E. coli possesses around 5,000 genes in a single-helix chromosome. That is the equivalent of around 1 million codons consisting of three letters each.50 (Codons are meaningful "words" consisting of only four letters in the DNA that consists of combinations of the letters A, T, C and G.) In other words, 1 million special codes determine all the bacterium's features and the activities it will perform. The extraordinary quantity and nature of the information carried in E. coli's DNA is expressed in one evolutionist source:

The DNA code is a genetic 'language' that communicates information to the cell. The cell is very complicated, using many DNA instructions to control its every function. The amount of information in the DNA of even the single-celled bacterium, E. coli, is vast indeed. It is greater than the information contained in all the books in any of the world's largest libraries.

(. . .) E. coli cells, the sequence of letters of its DNA is very specific. Only that particular sequence is capable of biological function. 51

It is not fully known how this bacterium's functions come about, nor whether any benefit accrues to it from this symbiotic lifestyle. But some of these bacteria transmit their requirements to the intestine cells, causing them to secrete sugar, which the bacteria can then use for food. So long as the bacteria are present in the human intestine, they carry out various functions such as digestion and vitamin absorption while preventing other, more harmful species of bacteria from becoming numerous enough to cause sickness. With the help of the bacteria, the intestines gain function, and the immune system is strengthened. In human beings and some mammals, these bacteria also assume the function of vitamin K production which is of the greatest importance because humans and ruminants cannot obtain Vitamin K from the food they eat. Yet the body needs this vitamin, which need is met thanks to these bacteria, which are able to break down and digest the cellulose in the vegetable foods eaten and provide vitamin K for the body. 52

These very complex and vital processes are carried out by bacteria with the same perfection and flawlessness in every human being on Earth. Yet so detailed are these processes that each is a separate indicator of consciousness, whose secrets have not yet been unraveled. The evolutionist

magazine New Scientist listed the following mysteries exhibited during the course of bacteria's seemingly conscious behavior:

For decades, this largely benign relationship has had microbiologists scratching their heads. Some of these "commensal"— that is, friendly— bacteria are found only in the mucus that lines the intestine, while others hang out in its various cracks and crevices. How do they know where to go when they colonise the gut in the first hours of an animal's life? And once there, how do they hold their own against the constant influx of new bacteria? And why do some of these Lilliputians live peacefully with us for years, only to turn on us in mean, even deadly, ways? Why, for that matter, isn't the immune system engaged in a constant battle with these intestinal interlopers? 53

Another important point to consider is that bacteria are capable of multiplying very rapidly, and when in their environmental conditions are favorable, in a few hours their numbers can quickly rise into the millions. Indeed, the human body is ideally suited to the multiplication of bacteria, which should also multiply excessively and in a very short space of time occupy the entire intestine. Yet such a state of affairs does not apply to the Escherichia coli in the intestine. This bacterium divides in two once every 20 minutes, following which most of the bacteria that multiplied die. Were that not the case, and if E. coli were doubling their numbers every 20 minutes, it would take only 43 hours for them to reaching a volume large enough to cover the entire planet. Yet that never happens, because there is competition for food among the bacteria living there. Those that lose are condemned to starve. In addition, many bacteria are unable to withstand the antibiotics in the body. 54

A bacterial equilibrium is established in the intestines. Those that survive constitute a number necessary for human digestion—a number set out and determined in all human beings for millions of years. Never have all these intestinal bacteria perished or multiplied in an uncontrollably, because these organisms have been specially created to be useful to human beings. Every detail, from their numbers to the functions they perform, is desired and determined by Allah. It is He Who provides this control, and Who plans where, how and at what numbers they should stop.

Bacteria in the Tongue

We take nitrate into our bodies with various foodstuffs. When nitrates enter the body, they lose an oxygen molecule and transform into nitrites. But the ease with which nitrate turns into nitrate is a cause of concern, since nitrites readily enter into chemical reactions and by bonding to

amines absorbed with food, turn into a substance known as nitrosamine. (Amines are the general name given to single-value hydrocarbons.) Nitrosamines produced in this way are one of the main causes of serious diseases such as stomach cancer.

However, nitrosamines—those that sometimes enter the body directly and those that are produced within it—are eliminated before doing any harm, thanks to the bacteria charged with protecting the human body.

Researchers recently discovered that 25% of the nitrates absorbed into the body with food returned to the cells in the mouth by mixing with saliva, ready to be turned into nitrite. The reason for this was previously unknown, because nitrite is a potentially harmful substance and there is no advantage for them to be manufactured in the body. Only later was it understood that nitrites combining with the acid in saliva prevents the formation of nitrosamine in the body. But nitrites are also very toxic to various harmful bacteria. Therefore, nitrite was specially returned to our mouths to mix with the food we eat. Food entering our mouths ceased to be harmful, and at the same time, any harmful organisms within it were killed as soon as the food containing them was chewed up.

But where is nitrite produced in the body? Where is it kept? Nitrate is converted into nitrite by bacteria in a region at the back of the tongue where the bacteria are particularly numerous. The bacteria that convert nitrate live in fissures between the taste buds at the back of the tongue, where oxygen cannot reach. Known as facultative anaerobes, these bacteria can live in environments with or without oxygen.

The bacteria also carry out all these processes around the gums, where their activity prevents tooth decay. 55

These chemical processes described so far all take place entirely chemical processes thanks to bacteria. By what decision did the bacteria conclude that the nitrates, whch we constantly ingest with basic foods such as meat and salads, could harm to the human body and then establish a place for themselves to neutralize it? According to Darwinists, it was evolution, or coincidental changes that did this. These bacteria that prevent people from being poisoned and dying from the food they eat took their assigned places by chance during the imaginary process of evolution. Some would have had to live without oxygen due to their location in the body, but that too was resolved by chance!

The immune system in the body would also have to be prevented from regarding all these bacteria as hostile invaders declaring war on them. In some way, chance also eliminated the danger that the immune system would detect anything peculiar about these microorganisms! According to

the theory of evolution, chance is the explanation for all these things. Evolutionists describe bacteria's seemingly conscious behavior to protect human beings in terms of evolution, rather than as the result of an intelligent, superior Creation. But in fact, it is absolutely impossible for coincidence to account for the way a bacterium installs itself on the tastebuds at the rear of the tongue, together with all its miraculous features, protecting the body from poisonous substances. Like the human organism itself, this delicate system exists to demonstrate to all those entities capable of reason that there is only one Allah, and there is no other Creator but Him.

This truth is revealed to us in the Qur'an:

He is the First and the Last, the Outward and the Inward. He has knowledge of all things. It is He Who created the heavens and the Earth in six days, then established Himself firmly on the Throne. He knows what goes into the Earth and what comes out of it, what comes down from heaven and what goes up into it. He is with you wherever you are—Allah sees what you do. (Surat al-Hadid, 3-4)

Bacteria That Cause Disease

The great majority of bacteria are useful to living things, although some possess features that can cause disease and other harmful effects. The ways that a variety of bacteria enters, weakens, or even causes the death of living things many billions of times larger than themselves exhibit a number of intentional stages, each with many details of its own. Indeed, a great many illnesses are caused by bacteria. Despite being only 1 micrometer (0.00003937 of an inch) in diameter, invisible to the naked eye, how can bacteria have such powerful effects?

Harmful bacteria generally reach humans and animals through their foods. You know how quickly bacteria multiply once they find a suitable environment. Nutrients like the proteins and factors such as moisture constitute an appropriate environment for them to multiply in foodstuffs. Some bacteria are harmless on

heir own, but when begin to reproduce in food, they start secreting poisonous toxins, which then lead to food poisoning.

When we consume food containing these bacteria, these organisms continue to reproduce in our intestines. The toxin that produced in the region of the cell where they settle can result in the death of the cell and

spread through the digestive system. Infection thus appears in the intestines. In some situations, bacteria can leave toxins on foodstuffs without actually entering the body themselves. When the food is eaten, its toxins are absorbed into the body, and serious food poisoning may again ensue. 56

One of the dread diseases caused by bacteria is known as:

Plague:
Against Which Mankind Was Powerless for Centuries

People can be poisoned by bacteria in the food they eat. Yet bacteria can also have other harmful effects. The most important feature of the bacterium that goes by the name of coccobacillus is that it was the sole cause of the plague that killed almost a third of the population of Europe in the 14th century.

How is it that this microorganism decided to have such an deadly effect en masse and invade so many bodies? Darwinists, who seek to deny Allah's creative power, can clearly see their own helplessness in the face of this tiny microorganism that He created, and in the face of His great might.

The plague bacterium lives parasitically in rodents like rats, mice and squirrels, and is passed on to humans by these animals' fleas. Surrounded by the immune system in the human intestine, the bacterium has a simulating and cell-multiplying effect. The plague bacterium enters the human body through the skin, eyes, mouth, digestive tract, respiratory passage, blood and lymph glands.

In the skin, where the bacterium first enters, sacs and nodules form. These represent the body's first resistance displayed towards the bacteria, but the body is unable to withstand them for long. The bacteria and the toxin they form enters the lymph glands through the lymph canals. Where the bacteria have settled in, the lymph glands begin to swell up, causing edemas to form around the lymph glands. As the lymph glands fill up with the bacterial toxin, gangrene then develop, causing the specific tissue to die and begin to decay. At this point, some plague bacteria can enter the bloodstream, reaching the spleen, liver, and other internal lymph glands, all of which then start to swell. As a result, other organs and lymph nodes fail, and death follows. 57

All this results from the multiplication of a single cell, which we can only observe under a microscope. The microorganism can destroy a body that it occupies in stages. In fact, apart from a few experimental vaccinations, still at the research stage, no sure precaution against plague

has yet been discovered. As yet, these vaccinations cannot prevent problems experienced in the intestine, digestive or respiratory systems.

In addition to these, plague bacteria have been discovered that carry genes resistant to five different antibiotics.58 In short, no matter what solutions are found, these bacteria will continue to exhibit resistance to the remedies. In other words, this microorganism constantly develops its own immunity, preparing itself to create ever worse problems, and clearly behaves with the same intelligence as that of human beings.

Overcoming all these difficulties is a major difficulty for Darwinists who, refusing to recognize the might of Allah, place themselves at the center of all things and regard themselves as all-powerful, seeking to convince others of the nonsense that everything came into being by chance. The way that one single bacterium can put an end to human life, and can function so efficiently and systematically as to leave medical science with no answers, clearly indicates the existence of an omniscient Creator. No scientific study has ever offered any other explanation. Those carried out in the future will also fail to produce results, and every new detail discovered will again reveal a superior and flawless Creation. Like everything else, this bacterium behaves under the inspiration of Allah, and obeys no one but Allah.

Intelligent Invaders of the Stomach

This organ has been specially created to grind up and break down foodstuffs. The gastric acid secreted in the stomach is powerful enough to dissolve razor blades. Every foodstuff entering the stomach is therefore dissolved with the help of these acids.

Researches into the causes of peptic ulcers that form in the stomach showed that they were caused by a bacterium known as Helicobacter pylori. How is it able to survive in such a strongly acidic environment? The bacterium eliminates the problem with an exceedingly rational system—by establishing a shelter within this highly dangerous environment. The stomach employs a mucosal layer to prevent its being damaged by its own acid. And just as if they were consciously aware that the acid presented a grave danger, the bacteria hide inside this layer. In order to do so, of course, they first need to realize that the stomach possesses such a protective layer, and they must anticipate that if they settle in that same environment, they will come to no harm.

The bacterium secretes an enzyme known as urease that makes its environment suitable to live in. This enzyme converts urea into ammonia—

an important conversion, because the resulting ammonia buffers the level of acid where the bacteria are present, and it ceases to be potentially lethal.

Once this deadly effect has been eliminated, the bacterium begins secreting its own toxic substances, whose purpose is to neutralize the immune system in the region. Conditions are now suitable for the bacterium to thrive. It begins to reproduce and spread the disease.

In fact, why do these bacteria seek to invade such a dangerous region of the body? Reasonably, the bacterium could have infected any area underneath the mucosal layer, instead of this perilous zone. That would not only be easier to do, but would avoid possibly fatal hazards. But the bacterium elects not to do this, so how does it obtain nourishment here?

When the stomach's mucosa become infected, the body dispatches to the region large numbers of defense cells and nutrients. This flow continues as long as the infection persists, providing a constant flow of nourishment that the bacteria need. That is why the bacterium prefers this region of the body, despite all its dangers. You can clearly see that this bacterium has performed a calculation. Right from the outset, it considers that the body will send quantities of nutrients to the areas it infects. Who provided it with that information? How can it surmise that the stomach possesses such a defense mechanism? Assuming that they do make such a surmise, how have they become able to use this information? Those who are unaware of Allah's might will seek distorted answers to these questions and will never be able to obtain any results. That is because Almighty Allah has no partners in His Creation and creates without previous models. We need to appreciate His hand in all these works in order to understand His matchless artistry.

Say: "Travel about the Earth and see how He brought Creation out of nothing. Then later, Allah will bring about the next existence. Allah has power over all things." (Surat al-‘Ankabut, 20)

Bacteria can also cause many other serious and deadly diseases, including leprosy, meningitis, tuberculosis, cholera and typhus. In all these diseases, the bacteria with a different DNA structures invade the body through intentional actions These diseases, and many others like them, are caused by a single-celled organisms that as yet can be cured only with difficulty, or not at all.

Bacteria Become Immune to Antibiotics

You realize that most of the bacteria that enter the bodies are useful or harmless, while a few others can give rise to diseases. The only way of getting rid of disease-causing bacteria that the immune system can't defeat is by the use of antibiotics. Some of the antibiotics administered in various ways kill bacteria, while others impede their development and reproduction. For example, some antibiotics target the bacterium's cell membrane, preventing it from forming a sheath to protect it from external influences. Fluid thus accumulates in the cell, which eventually bursts and is neutralized.

Having done its job, an antibiotic leaves to the body's immune system the business of clearing away the dead bacteria. For example, some antibiotics target the bacterium's cell membrane. These antibiotics prevent the bacterium forming a sheath that will protect it from external influences. Fluid thus accumulates in the cell, which eventually bursts and is neutralized.

On the other hand, some antibiotics, change the levels of vital substances that enter and leave the bacterium. As we know, a cell membrane possesses selective permeability that allows beneficial substances to enter the cell, while harmful substances are recognized and excluded, while wastes are expelled. The antibiotic alters this special selective permeability in the bacterium's cell membrane. A bacterium that is unable to absorb nutrients, but which harmful substances can freely enter, soon dies.

Still other antibiotics target bacterial proteins. Proteins perform cells' vital functions. Therefore, when proteins are absent these functions cannot be carried out, and the death of the bacterium is inevitable. The ribosome in the cell produces proteins. The antibiotics decelerate protein production by impairing the ribosome system, even causing the wrong proteins to be manufactured. Another antibiotic prevents the production of nucleic acids, which are again necessary for protein formation.59 The bacterium again dies from lack of proteins when nucleic acid is not manufactured.

Antibiotics can protect us against harmful bacteria, but only if the structure of the bacterium under normal conditions is known, and an appropriate antibiotic can be manufactured. This is by no means as easy as you might think. Bacteria employ various tactics and ways of defending themselves against antibiotics. These microorganisms, only a few microns in size, react in a seemingly intelligent manner and can display resistance to antibiotics, produced by countless human beings using the most advanced technology under laboratory conditions, by altering their own genes within a matter of seconds.

How Do Bacteria Defend Themselves?

How did a microorganism consisting of only a few organelles, a cell membrane, DNA and a ribosome, protect itself against antibiotics? How does it determine those elements that represent a danger and develop protective measures against them? It's of course out of the question to speak of such an organism's consciousness, ability or comprehension. There must be a satisfying and rational explanation for the behavior it manifests in its war against antibiotics. In order to see and appreciate the source of this intelligence let us first examine the nature of bacteria's resistance to antibiotics.

When an antibiotic enters the body, some species of bacteria multiply as fast as possible. Those unable to withstand the antibiotic are defeated and die. Those which do exhibit resistance to the antibiotic continue reproducing, and produce new, resistant generations. Therefore, any antibiotic introduced into the body is usually insufficient to eliminate them all and is not strong enough to destroy the new, resistant strains. As a result, the disease will persist even in the presence of the appropriate drug.

A second method employed by bacteria consists of changing by altering their genetic structure. Having already encountered the antibiotic, the bacterium knows how the antibiotics will disable it, then makes genetic changes in those sites that the antibiotics will affect. For example, it may begin producing new molecules that affect its cell membrane. Thus in subsequent encounters, the antibiotics will meet resistance from these freshly manufactured molecules and be unable to affect the cell wall.

Another conscious strategy is that bacteria prevent the drug from entering the cell wall, either by pumping the drug out again or else by preventing it from entering at all. Of course, genetic changes for such an action also need to be carried out, yet bacteria are able to do this with ease.

Another means of bacterial self-defense is to alter the site where the antibiotic should bind. Since the antibiotic cannot reach the site it must attach to under normal conditions, it will be unable to neutralize the bacterium. We still do not know how bacteria acquire the genes necessary for such a change.

Bacteria can also make resistant the regions that the antibiotic will target. Some streptococci can only survive in the presence of a molecule known as thymidine. If an antibiotic prevents the streptococcus from producing thymidine, the bacterium defends itself by producing thymidine in a different way. The antibiotic cannot halt the production of thymidine in unexpected way, so will be unable to kill the bacterium.

Another proof that bacteria behave in a conscious manner is the way that the knowing teach the unknowing. A bacterium that succeeds in exhibiting resistance by changing its genetic structure may be able to pass along to other members of its own species the genes that allow this change. To do this, two bacteria construct a bridge between them, and pass the relevant gene from one to the other.

Another method is for a bacterium to eject its helix-shaped DNA into the environment, for others to include in their own genetic codes. These helix-shaped DNA fragments are known as plasmids. Any one bacterium can develop resistance to more than one antibiotic with just a single plasmid.60 This method that bacteria employ is the most feared by medical circles and constantly prevents the conquering of diseases. A disease that was formerly eradicated with a given antibiotic assumes a new virulence because the bacterium alters its genetic structure and is no longer vulnerable.

No doubt that Allah has endowed this organism invisible to the naked eye with a strategy superior to those of human beings. Through Allah's inspiration, a bacterium can identify developments that humans did not notice or even guess at, and can react more promptly than them.

Human themselves are aware of this. Years of research have been employed to find solutions to overcome the tactics of a single bacterium.

Evolutionists have widely used this characteristic of bacteria to confirm their theory. In their view, the way that bacteria develop resistance to certain antibiotics, and the way that some insects develop immunity to pesticides confirm the process of evolution. But what we are really dealing with changes within a single species. Not the Creation of any new ones.

As you know, mutation occupies a vital place in the basic mechanism of change proposed by evolutionists. According to their claim, as a result of various internal and external effects, random changes taking place in the DNA sequence and cause new species to emerge over the long run. In fact, mutations take place in the DNA sequence, but most of these known mutations are harmful. They inflict damage on the new organism, while the other mutations wield no effect at all. However, evolutionists still believe that useful mutations sometimes occur, and that thanks to them, new species arise. (For detailed information, see Harun Yahya's, Darwinism Refuted, Goodword Books Pvt. Ltd., 2002.) Evolutionists believe that bacteria develop resistance to antibiotics by undergoing useful mutations, and therefore offer an important verification of evolution. However, such a conclusion stems from evolutionists' own ideological tendencies. When examined in detail, the way bacteria acquire resistance to antibiotics can never constitute evidence of the theory of evolution.

1. All known antibiotics were obtained from microorganisms that already existed in nature, living things produce substances that can kill and break down different bacteria. Some microorganisms, however, possess genes that permit them to mount a defense system inside their bodies against these sorts of antibiotics, ready to withstand the deadly substance inside the antibiotic. The gene packet in which this defense mechanism's data are concealed can be shared between bacteria. For example, if one bacterium has a gene to defend itself against flu vaccine, this bacterium leaves in the environment packages or plasmids, which computer enthusiasts may compare to compact discs. Other bacteria can take up this information and assemble it in their own data banks, or DNA. In this way, different bacteria can acquire the same defense against the flu vaccine. No stage that could offer evidence for evolution occurs during this process. The bacterial DNA does not experience a random mutation and acquire any new characteristic. It has possessed the information that permits it to exhibit resistance ever since it was first created. The fact that genetic research has determined no difference, between specimens of bacteria that lived hundreds of millions of years ago and living ones is a major proof of this. The sharing of this information with other bacteria proves not that the bacteria evolved by chance, only of the perfect mechanism created for the exchange of this information.

2. Bacteria that are resistant to antibiotics survive; those without resistant genes die, but no truly new species emerges. Since only non-resistant bacteria die, bacteria with resistance multiply into a more numerous strain of the same bacterium. The proponents of Darwinism refer to this change as "micro-evolution" and claim that this constitutes a small step in the large-scale speciation known as macro-evolution. However, as you can see, bacteria handing on antibiotic-resistant genes to other bacteria is not an evolutionary mechanism. In order for this to constitute evidence for evolution, this exchange would have to add new information to the organism's DNA. Yet as the result of exchange, the bacterium does not acquire immunity. The resistance already exists within its DNA.

3. In all the mutations evolutionists put forward as beneficial, the mutation has actually caused the organism to lose information, and become damaged. Evolutionists have therefore found themselves in a major impasse in trying to explain how mutations add useful information to the data bank of DNA.

The fact that bacteria possess such features is a major cause of concern in the doomsday scenarios recently drawn by scientists such as Stephen Hawking. The way that disease-causing bacteria acquire resistance

to different antibiotics increases the possibility of the emergence of a super-bacterium.

EVOLUTIONISTS' ERROR REGARDING BACTERIA

According to Darwinists, life emerged thanks to when first bacterium came into being by chance. In order to be able to claim that it suddenly began metabolizing in a totally uncontrolled environment, they suggest that it must have been simple. This allegedly simple life form had to be randomly affected by various environmental conditions, experience various random changes, learn various miraculous features—such as producing its own nutrients, suddenly beginning to divide itself in two— and to come to constitute the wide-ranging spectrum of present-day life.

According to the theory of evolution, there must have been an imaginary simple bacterium in order for life to have a beginning. According to that same superstitious belief, all living things evolved from simpler forms and gradually became more complex. This view has generally prevailed in the taxonomy, or classification, of living things. Today, however, the enormous strides in the world of science have led to a change in that understanding and exposed the theory of evolution coming in for strong criticism. The late evolutionist Stephen Jay Gould emphasized the racism that underlies the view that humans are superior to all other living things, and that one race of humans is regarded as superior:

In folk taxonomy, it merely leads us to make fine distinctions among creatures close to us and very broad ones for more distant, "simple" organisms. Every novel bump on a tooth defines a new kind of mammal, but we tend to lump all single-celled creatures together as "primitive" organisms." 61

The claim that life began thanks to a simple first bacterium is a major deception. Those who claim that must first explain how life came into being. Evolutionist sources, however, present no scientific findings on how life first emerged. This absence of scientific evidence has led to various speculation and myths being regarded as valid. The materialist perspective at the basis of the theory has played an important role in the formation of these tall tales.

According to the fossil record, the first known living thing was a cyanobacterium that lived some 3.5 billion years ago. This bacterium is still alive today, having undergone no changes. The real disappointment for evolutionists, however, is that it is one of the most complex bacteria known! This cyanobacterium, with a capability to perform photosynthesis, is

definitely not regarded as a simple form of life by modern-day scientists. It is at this point that the evolutionist claim suffers a major defeat. The fossil record shows that bacteria of 3.85 billion years ago had the same properties as they do today.

Researches have shown that the Earth's becoming able to sustain life dates back to exactly those times.62 In other words, the complex structures of bacteria that we'll discuss in later chapters emerged not through impossible gradual coincidences, through a long process of trial and error, but suddenly—as the specific component of a superior plan.

Furthermore, the sudden coming to life from a state of lifelessness, is impossible, no matter how simple an entity may be. No natural mechanism has the power to produce animate matter from inanimate. Even if water, soil and air remain combined for billions of years, they still lack the directed consciousness to produce life, or attain the superior structure that life requires. Viewed from that perspective, bacteria are not in fact simple organisms at all, as evolutionists would have us believe, as you can see in evolutionist calculations regarding the chances of a bacterium's emerging spontaneously:

Hoyle and Wickramsinghe, who estimated the odds of spontaneous generation of a living bacterium at 1040,000 to 1 . . . Shapiro then cites Morowitz who made estimates based on more realistic conditions. A more realistic estimate has been made by Harold Morowitz...The answer computed by Morowitz reduces the odds of Hoyle to utter insignificance: 1 chance in 10100,000,000,000.63

To examine the mathematics a little more closely, we must place 100 billion zeroes after the number 10 and to accept that unbelievably huge figure as a probability. Yet in mathematics, probabilities smaller than 1050 are regarded as zero. In short, it's impossible for such am unlikely probability to occur.

All this clearly shows that bacteria are by no means simple in terms of their structure and function. If evolutionists regard single-celled bacteria as simple stems, solely based on the ideology to which they are so devoted. These creatures need to possess such a complex structure to fulfill the vital functions they assume, and employ specialized structures to perform their particular tasks.

Take bacteria that perform photosynthesis as an example. These creatures produce 70% of the oxygen necessary for life, while using carbon dioxide to produce food that could not emerge in any other way. Thanks to this superior organism that evolutionists describe as simple, free oxygen and the basis of the world's entire food chain emerge, and the level of the

toxic carbon dioxide in the atmosphere is regulated, and the systems in these creatures capable of reproducing very quickly and in very large numbers produce foods consumed by themselves and other organisms. In addition to all these properties, the structures of single-celled organisms such as algae, plankton and diatoms may be compared to computer chips, marvels of superior technology, making the idea that they are simple totally ridiculous.

Bacteria demonstrate their effects in all living things, from termites to the roots of plants, having spread all over the world and been performing their tasks to the letter for billions of years. All of which points to one single truth: Creation.

The adherents of evolution are very aware that these organisms' structures are not simple at all. Therefore, they find themselves in a constant quandary in seeking to account for the mechanisms they possess. The theory of evolution hesitates to confront the science and technology that registered such enormous progress in the 20th century, because the new world revealed under the electron microscope once again gave the lie to Darwin's theory. Let evolutionists keep on looking for an other explanation, but every new feature we discover in these living things will be a means of appreciating how Allah has created flawless artistry in organisms invisible to the naked eye.

This flawless artistry and knowledge of Allah's is expressed in the following terms in the Qur'an:

Praise be to Allah, to Whom everything in the heavens and everything in the Earth belongs, and praise be to Him in the Hereafter. He is the All-Wise, the All-Aware. He knows what goes into the Earth and what comes out of it, and what comes down from heaven and what goes up into it. And He is the Most Merciful, the Ever-Forgiving. (Surah Saba', 1-2)

3. VIRUSES

The human body's worst enemy, a virus uses any human cell as a shelter for itself, multiplies there, and sometimes leads to the death of the individual.

A virus consists of a protein sheath and inside the sheath, genetic codes, DNA and/or RNA, that containing the information to replicate itself. It has no functioning organelles exhibiting signs of life on their own, no way to produce energy or synthesize proteins. It therefore relies on the existence of a living cell that can perform these vital functions for it. That is why a virus can remain unchanged, in a state of suspended animation, for millions of years. No change or impairment takes place in its structure during that very long time. But upon encountering an organism, it immediately comes to life and goes into action. It now resembles a conscious entity, seemingly capable of planning, developing strategies and using intelligence. The sole reason for this extraordinary change is that Allah has given it life and inspired in it the need to take action. No other force, knowledge or technological mechanism can bring about this extraordinary conscious behavior.

A virus can remain in an inanimate state for a long time. The only things it needs to awaken are the warmth and moisture of a cell which it can enter and infect. Once it has entered a cell, it can sometimes reproduce itself 100 times in an hour and can sometimes alter its genetic structure so much as to kill 20 million human beings in a year. Viruses, despite wielding such powerful and lethal effects, are so small that 1018 of them (10 followed by 18 zeros) would only just fill a ping-pong ball. If one virus had been placed inside a ping-pong ball every second since the beginning of the universe, the ball would still only be half full today.

Not all viruses are the same size, of course. Some are thousands of times larger than those just mentioned, but it would still take 30 million years for them to fill a ping-pong ball. Others are up to 80 times smaller, and would be unable to fill a ping-pong ball in 2 trillion years. 64

When you examine the structure of viruses close up, you can see that they possess a perfect structure. The molecules making up the virus sheath give it a literally gemlike appearance. Each virus with its own unique geometrical shape gives rise to amazing patterns. Just as in all structures in nature, there are various rules and measurements in its construction, determined through so-called cubic symmetry. Various scientists spent years of research to solve the laws of these architectural structures. The

viral forms that emerge as a result of these geometrical laws are icosahedrons. In a typical example, there will be 20 surfaces, each consisting of an equilateral triangle.

Different viruses have multi-faceted external shells by using different geometrical shapes, such as pentagons. Other viruses have tubular or cylindrical shapes, and to them, the laws of spiral symmetry apply.

It has taken science years to investigate viruses using x-ray analysis and other complex newly discovered methods. This organism, which affects all of life using its own techniques and leads to mass deaths of various plants and animals, basically consists of just a cell membrane and DNA. It was discovered only in the last century, and we have been seeking to unravel its secrets for the last 30 years. Until now, however, countless thousands of people have been subjected to the disease-causing effects of this microorganism. Viruses have used the same methods, acting with the same division of labor, for millions of years, unaware even of the existence of their human hosts. This is a manifestation of Allah's infinite knowledge.

How Does a Virus Install Itself in Human Beings?

A living virus can enter a cell and turn its inner workings to its own purposes. Before entering a cell, the virus determines whether the cell is suitable for it. If it is, the virus empties out itself into that cell. The cell generally detects nothing odd about this new DNA entering in and therefore does not recognize it as foreign and is therefore unable to declare war on this substance that it has failed to identify. The cell transports the virus's DNA to where the DNA should be in the cell, in other words directly toward the nucleus, where the virus combines with the cell's own DNA.

Following this, the cell begins to produce new viruses, believing itself to be manufacturing new proteins.

It is exceedingly difficult to distinguish this "new" DNA molecule concealed inside the cell, akin to looking for half a line piece of text in a 20-volume set of encyclopedias. For that reason, the cell keeps producing the virus without stopping.

The cell is an organism that performs delicate processes within a delicate balance. A different DNA included within that delicate structure would impair that entire order. It will continue to discharge its responsibilities to the letter, but the result will have a devastating impact on the entire body. If the importance of the impairments is only minor then the cells with the virus inside them add the virus's nucleus element to their own chromosomes and begin dividing in a different manner. This is uncontrolled cell multiplication, and the cells in question soon turn into cancer cells.65 This irregularity may sometimes lead to a person's death. Herpes viruses

may settle in a human nerve cell and wait there quietly, giving no indication of their presence for days, or even years. These viruses wait for a moment when the immune system is weakened. When the body is unable to resist it, the viruses will go into action and migrate to the surface, where they initiate their activities inside skin cells.

The really surprising thing is the way that a structure such as the cell, which allows no foreign substance to enter it, can be used by the virus in this manner. The virus does not just settle in to make a home for itself, but also uses the cell's own mechanisms to reproduce. The seemingly conscious behavior exhibited here is still not understood by scientists.

Under the effect of the virus that has entered it, the cell is doomed, though it will expend the last of its energy until it dies and breaks down. The virus, which has now reproduced and grown much more numerous, spreads out to other cells.

This invasion takes place at breathtaking speed. Some viral epidemics have eliminated whole communities in a matter of days. One flu epidemic in 1918, for instance, killed 20 million people most of who died just a few hours after their symptoms first appeared. 66

We now need to think a little about this conscious event caused by a single virus. From where does the living thing we refer to as a virus, consisting of just an outer casing and DNA, receive instruction as to how and when to enter the cell? How is it able to come alive and reproduce after remaining dormant, being as inanimate as a stone? What allows it to survive the long years of dormancy? Moreover, how does a virus possess the knowledge of how to occupy the whole body by entering a cell in a human being's body? Where is this information maintained, and how does the virus make use of it? No virus can possess any intelligence. Allah created it to perform all these actions flawlessly. In one verse it is revealed:

In the alternation of night and day and what Allah has created in the heavens and the Earth, there are signs for people who guard against evil. (Surah Yunus, 6)

Viruses Come in Many Forms

Viruses possess a genetic structure, but have no capacity to make that genetic information work for themselves. On their own, they lack this essential property of life. This organism's genetic structure cannot even be regarded living in every sense of the word, yet it does however display an unbelievable variety. A virus possesses a genome of a rather large number

of "letters." Another more interesting feature is that the genome of every virus in a matchless one-off.

Viruses possess various sequences of letters depending on their length. The hepatitis B virus, for example, consists of 3,200 nucleotides, or letters. The HIV virus has 10,000 nucleotides. Larger viruses such as the herpes viruses that cause cold sores, have around 100,000 nucleotides. Thanks to the information concealed in their DNA, the only organs these organisms possess, they can reproduce and survive by entering other cells. All these properties have been squeezed into their DNA.

Thanks to their superior abilities, viruses can also change their genetic qualities in a very short time. The very same disease can exhibit different symptoms and varying degrees of virulence, thanks to viruses' ability to change their genetic makeup. No vaccinations can be effective against such diseases because of these sudden changes.

The virus can enter a cell in its new form without its presence triggering the immune response that responded to its earlier form. Under normal conditions, vaccines—-the only precaution against viruses—stimulate the body to recognize viral strains that may infect it later, but are ineffective against a virus that has mutated itself. When a killed virus is introduced through vaccination, the immune system perceives it as hostile and produces antibodies to destroy it. However, vaccines are unable to recognize a new virus that produces the same disease but which has altered its genes. Indeed, a flu vaccine becomes obsolete the following year, because the influenza virus assumes a new form every year. This also applies to the HIV virus that leads to AIDS. However, the HIV virus mutates so fast that the antiviral medications eventually lose their effectiveness.

It is impossible not to see the superior and intelligent ability of the virus here. The virus's speed of reproduction and changing its own form is so rapid as to far exceed those of human technology. An average virus can produce 10,000 new particles a day. If you have one viral particle on Monday, you will have 10,000 on Tuesday and soon 10,000 times 10,000, and then 10,000 times 10,000 times 10,000—1,000 billion viral particles.

When the HIV virus, for example, enters the body, the immune system destroys more than half the invading particles by within five days. Yet just as many new particles emerge during that same time. When at least one is recognized by the defense system, the others will mutate into a different form, thus resisting the attacks and becoming the first generation of the new HIV population.

From the perspective of the theory of evolution, viruses pose yet another unanswered question. The virus occupies an imaginary place on the

evolutionary tree. When and how did this organism emerge? There are no fossil remains. All the scenarios of evolution have is conjecture. Heading the list of questions that give evolutionists trouble the virus's complex structure. In fact, evolutionists often classify viruses as primitive single-celled organisms like bacteria, except bacteria and viruses possess very different structures. A great many species of bacteria possess spherical chromosomes that float freely within the cell, whereas the rod-shaped chromosomes of viruses (and of human beings) are protected in the nucleus. In these terms, viruses—especially ones of the pox group—are more similar to the eukaryotes than to the prokaryotes, of which bacteria are members.

In addition, the DNA and RNA packets constituting the virus's structure are totally different from those of bacteria.

What power that gives rise to such differentiation and gives viruses their ability?

Those who seek to answer "Evolution!" will always be facing inconsistencies. They may claim that the difference stems from differently functioning evolutionary mechanisms and will continue to advance new theories. Though aware of this flawless Creation, they will continue to deny it. And the more numerous such questions will become, forcing Darwinists to continue desperately searching for new lies and coming up with new theories. Like all evolutionists before them, those who make these new claims will also waste their lives without finding any solution. And like all evolutionist claims ever been made, their claims will remain groundless and unsupported. A few will conclude that the "laws" that have been around since Darwin's era have achieved no explanations, and that it is illogical to fly in the face of the facts. But others will have no compunction about supporting a theory built on falsehoods.

There is absolutely no doubt that a virus, which manages to enter just one out of a human being's 100 trillion cells using incomparable methods, and which can cause the death of the individual and even of whole communities, despite being so miniscule in size, is a great miracle of Allah. They have been created so we may understand see the omniscience of Allah. Viruses have been brought into being so that we may witness how defenseless we are in the face of particles too small to be seen with the naked eye. Like all the works on Earth, this organism proclaims the might of its Creator.

That is the truth, whether people accept it or not. Allah reveals on this subject that:

[Hud said,] "I have put my trust in Allah, my Lord and your Lord. There is no creature He does not hold by the forelock. My Lord is on a Straight Path." (Surah Hud, 56)

4. ALGAE: MIRACULOUS SINGLE-CELLED CREATURES THAT GIVE OFF OXYGEN

Some living things possess rings containing pigments. The characteristic of these is that electrons can move freely around them. The ring in question can therefore easily acquire or lose an electron, and thus immediately trap light and energy around it. The solar energy reaching the Earth is one form of energy with which that the pigment can interact. This pigment, which traps and absorbs solar energy is known as chlorophyll, which permits living things to perform photosynthesis.

Neither human beings nor animals can perform photosynthesis, because they contain no chlorophyll. Nor can this process be carried out artificially in laboratories. The mechanisms that take place in the chlorophyll pigment are exceedingly complex and are not yet fully understood. Apart from green plants and the photosynthetic bacteria we have already discussed, only algae can perform photosynthesis. They meet their own energy needs by way of photosynthesis, and meet the major requirements of the Earth. Algae absorb some 30% of the carbon dioxide gas and meet 70% of the planet's oxygen needs. They also provide 70% of the food requirements of all living species. They possess not only the capability of photosynthesis, but special mechanisms that permit solar rays to be transported to regions that never see any light. 68

These microorganisms have no brains and cannot think or reason. They consist of just one or a few cells that can be seen only under a microscope. However, algae meet the ecosystem's most important needs—oxygen and food—with a microscopic factory specially created for them.

Algae are widely found in shallow waters, and can live on every water surface that receives sunlight: from thermal springs to the surfaces of ice and snow. The algae cell consists of two sections, one colored and one not. DNA and, in some species, the nucleus are found in the non-colored part, while the other portion contains RNA and color giving pigments.

The kind of pigment contained by particular algae groups differs from others depending on their cell walls and mobility. Algae containing only chlorophyll may be green or blue-green. Brown and red algae contain not only chlorophyll but also such pigments as carotene that conceal the green.69 Algae possess a thin and rigid cell membranes. Some algae move with tiny hairs known as flagella. The cell contains a complex nucleus. The

chlorophyll is covered in, and protected by, a special membrane that carries out the photosynthetic reactions with light.

Another of the important processes performed by algae is to produce large amounts of organic substances in the water around them, thus increasing the food available to water-dwelling organisms. Water containing algae is therefore very well suited for other forms of life. Algae also clean the water they live in. Some have constructive properties that actually change the form and nature of the shore and sea beds. Providing food and nutrients for living things, they constitute the basis of the food chain in the oceans.

Some algae use light and CO2 as their basic fuels. Others feed by producing complex organic substances from simple ones. For example, the energy from the Sun reaching the surface of the Atlantic Ocean on a summer day is around 2 billion calories. Some 99.5% of this energy is reflected and scattered. Only 1.67 million grams (0.5%) is used by single-celled algae to produce food. Algae absorb 32% carbon dioxide and dissolve and expel the remaining 8% in the form of organic substances.70 That level of 8% is needed by the planet as organic matter, which is transmitted to other living things.

Algae are used by industry in many ways—directly in the manufacture of foodstuffs, drugs and other industrial products, and also play a significant role in the manufacture of other goods. These products are in turn used to manufacture various foods, medical and cosmetic products.71 Allah has made this minute entity exceedingly useful—another important proof of the greatness of Allah, our Almighty Creator.

Algae Maintain a Steady Climate

A great many algae produce a gas known as dimethyl sulphate (DMS). This gas, as we have already briefly touched on, turns into solid particles by reacting with oxygen immediately above the sea, leading to cloud formation. Thus algae are responsible for forming clouds that reflect radiation from the Sun, keeping the planet cool, at its present temperature. Therefore, algae possess the effective important property of maintaining the temperature of the planet.

It is impossible for evolutionist biologists to understand this system and still account for it in terms of evolution. The theory of evolution can not explain a single-celled organism's effect on atmospheric conditions and the maintaining of Earth's temperature. Moreover, the mechanism that algae employs represents an even greater puzzle for evolutionists.

The activity of algae increases as the atmosphere warms up, and they begin producing DMS. The way and reason why algae produce this substance is still not yet fully understood. According to one view, DMS is a waste product given off by the cells. According to another claim, when cells are damaged, they release a toxic acid to defend themselves from enemies. Algae exposed to attack by viruses or plankton thus release large quantities of DMS. Even if this hypothesis is confirmed, it is still not yet known why algae release large amounts of this substance at some times and smaller amounts at others, apparently in response to need. Algae vary their production levels in line with temperature, with the aim of keeping the world cool: Algae to produce more DMS in tropical regions, and less of it in colder ones.

Were it not for these organisms, the Earth would be a much warmer place. Indeed, as a result of them, a cooling of up to 40 degrees takes place on our planet. If it did not, the upper levels of the oceans would rapidly warm, separating from the cooler ones below, making it impossible for surface algae to reach the nutrients below. For that reason algae release this substance which exhibits antifreeze properties. But why should organisms living in tropical oceans need to manufacture antifreeze?

Algae need to produce antifreeze because with this substance, they can rise into the air when water evaporates. Algae climb into the upper layers of the atmosphere, helping them spread to more distant regions by air currents that effectively carry them all over the planet. That the sky is full of these organisms is thus not at all surprising. There are up to 10,000 microorganisms, of various species, in every cubic meter of air in the layer closest to the Earth. Up to a height of 50 kilometers (31 miles) in the atmosphere, there are living bacteria and fungi using the same method as algae, accelerating the photosynthesis of the algae on the Earth. As a result of photosynthesis, when the water surface warms up, bubbles form on the surface. Algae—just as if they knew that these bubbles would soon burst and expel themselves into the atmosphere, install themselves inside. When the bubble bursts, the algae leave the water and can enter the air, where they can move freely.

As DMS forms, it emits heat energy that warms the air around it. And this warm air rises. The air beneath is pulled upward by and the current that forms constitutes clouds. In this way, the algae on the water surface rise up with air currents and use wind in order to spread. The algae that rise into the air are red—another important point, since their color protects them from ultraviolet rays when they ascend into the atmosphere. 72

All this system we have described clearly shows that such a minute organism possesses all the requirements and mechanisms to spread all over the planet. The way that a minute living thing influences the temperature of the atmosphere and permits all life to survive is clear evidence of special Creation. Moreover, what is astonishing is the fact that everything consists of gas production, that this gas reaches the highest strata in special ways, that it causes clouds to form and, even more importantly, that this microorganism assists in these processes. As you have seen, evolutionists are baffled in the face of these phenomena, because a microorganism affecting the entire ecosystem in an organized fashion leaves the simple and illusory mechanisms of evolution far behind.

Diatoms:
A Special Kind of Algae

Diatoms are algae that generally live in water and also possess the ability to perform photosynthesis. Diatoms represent 90% of the living organisms in the oceans. There are also freshwater varieties of diatoms.

Diatoms possess a double shell that is hard because it contains silesia, for which reason diatoms' forms are impressive and rather attractively arranged. They are divided in two symmetrically by a line running down their middles. Each symmetrical half contains other symmetrical figures. This symmetry exhibits a flawless geometry, a marvel of superior Creation. Diatoms are all works of art, displaying the most flawless structure among microorganisms. Their different shapes have measurements calculated with the greatest care, showing that these living things are the matchless work of a sublime Creator. In these terms, diatoms are all works of art, with the most flawless and symmetrical structure among microorganisms.

Some 10,000 living and 15,000 extinct species of diatom have been described. Along with other photosynthetic algae, they constitute the food chain of the tropical oceans. They are responsible for the annual production of 130,000 tons (286,600,000 pounds) of organic carbon, the basic nutrient of living things and whose production is most important for the world's ecology. Through their process of photosynthesis, diatoms are among the major consumers of carbon dioxide.

This living things, which produce their own food by photosynthesis and permits the release of free oxygen, are only some 25 microns in size. The other benefits provided by this microorganism may be summarized as follows. Diatoms represent an important food source for marine creatures like fish and whales. At the same time, they are responsible for providing the vitamin D in fish oil, very valuable for human development. Allah

created this tiny creature out of compassion for fish, and for human beings who use fish as food.

In addition, diatoms also have industrial uses in filtering and insulation. These organisms are particularly important in transforming silica, nitrate and phosphate to a state that can be used by living things.73 They can even be used for purifying undrinkable water springs.

Most of these processes cannot be carried out under even modern-day laboratory conditions. But the way a single-celled diatom functions just like a chemical laboratory is of course none of its own doing. Unaware of the carbon dioxide outside, the oxygen it produces, or the importance of the vitamin D in fish oil, it merely fulfils the functions assigned to it. Its superior attributes and behavior are inspired by Allah, Who created it, as well as the Earth and sky and everything in them, with His simple command Be!

Our Word to a thing when We desire it is just to say to it, "Be!" and it is. (Surat an-Nahl, 40)

Algae Share a Life with Other Living Things
Corals Survive As A Means of Algae

Coral shares its life with algae in order to survive. The single-celled algae that settle on the coral's surface lend it its beautiful colors and at the same time permit it to feed. Algae accelerate the formation of the lime necessary for the development of coral reefs and also protect the surface of these polyps from the erosive effects of salt water.

The most evident manifestation of this symbiosis between coral and algae can be seen in the lovely coral that give the Red Sea its color, as a result of this communal life.

The Red Sea, situated between two deserts, should be a most infertile region. The climate is dry, and there are no rivers or freshwater sources to feed the sea. The sea therefore possesses no sources to generate oxygen or nitrogen. Under normal circumstances the Red Sea should harbor very little life. In fact, however, that coral survives easily in this unfavorable environment, and also permits other organisms to live in it.

Green algae are the only elements that permit coral to survive in these waters with no other life source. The coral gives the algae a place to shelter inside itself, and thanks to the photosynthesis they perform, the algae provide the coral with food and energy. Coral uses all kinds of methods in order for algae to receive sunlight, their all-important source of energy. For that reason, coral polyps generally closes in on themselves in the daytime, leaving only their exoskeletons outside. In this way, the sunlight easily

reaches the algae within, permitting the process of photosynthesis. In this way, the coral also obtains the food it needs.

Coral meets all its food requirements with a system peculiar to itself. These polyps secrete a digestive solution that weakens the skin of the algae. By this method, 80% of all the nutrients photosynthesized by algae emerge and enter the coral's own cells.74 This method employed by coral is a thoroughly planned one. Coral knows that algae represent a rich food source, and for that reason, it does not permit all the algae to die when it releases the dissolving substance to obtain the nourishment it needs. The amount released is just enough to assist the required amount of nourishment to be released.

The process of photosynthesis performed by algae also enriches oxygen content of the sea water. Oxygen-enriched water broadens the chain of life. The nitrogen level also rises, thanks to animal wastes and bacteria, making for an increase in fertility and life. That is also the reason why there is life in the Red Sea.

Algae, too, benefit from this relationship, of course. Under normal conditions, coral gives off ammonia and CO2. These substances are a perfect source of fertilizer, and food for algae. At the same time, algae need nitrate and phosphate in order to survive, which substances are found in coral waste products.75 Coral has wastes, because as you know, coral is an animal, and not a plant. Therefore, all the raw materials necessary for algae to live are present in the coral's tissues. The algae obtain all the food they need, without expending any effort, from this invertebrate on which they live, which also protects them from enemies.

The methods developed by coral to provide sunlight for algae exhibit an obvious planning. Corals generally anchor themselves in places in the sea where there is strong sunlight, and especially in shallow waters. They spread out more thinly in deeper waters where sunlight is less, and settle into shape in such a way as to obtain the maximum amount of light in their environment. In this way, the algae obtain their most important source of energy. Clearly, coral is very well acquainted with algae and know what they need. Yet to claim that coral, a sea animal, and algae, a single-celled organism, are acquainted with one another is to claim that they exhibit conscious behavior. It is definitely impossible for coral to know that algae survive by taking energy from the Sun. It's equally out of the question for coral to think of using this property for its own benefit. In addition, it's impossible for coral to think of dissolving the algae's cell membrane to make greater use of them, and to locate in a special place in the water in order for algae to make greater use of sunlight. Yet these two symbiotic

organisms are well acquainted with one another, and we must admit that the impossible has happened and that both behave in a seemingly conscious manner. Therefore, we once again see the manifestations of Allah's omniscience and realize that the idea of chance development is a huge misconception.

The benefits that algae confer on coral go even further. In a yet undetermined way, algae permit the coral skeleton to grow. This is a most important assistance because coral polyps can live only if they can form their own exoskeletons. Algae also produce a chemical substance that functions like a high-factor sun cream to protect both themselves and the polyp they live on from harmful ultraviolet rays. This substance is of great importance since it especially manufactured in tropical regions where the Sun's rays are very strong.76 A tiny algae cell is able to take a precautionary measure, as if it knew the harmful effects of too much ultraviolet light, and uses chemical methods to do this. Looked at from all these aspects, this common life the details of which we have been looking at is the best and most advanced symbiosis in the world. Coral can survive at a maximum temperature of 290C. When the water reaches 340C, coral casts off the algae on its surface. This reaction is the first step in the death of the coral. If the temperature rise persists for four weeks, it becomes impossible for the coral polyps to find the algae necessary for them to survive. 77

Sponges and foreign algae later settle in the emptied-out coral skeleton. But the algae leaving the coral with which they shared a common life also take with them the coral's beautiful colors, so that the coral turns brown and green. Coral that has lost all its bright hues, is also deprived of its protective algae and is now exposed to the corrosive effects of salt water. All that now remains of the original coral is its calcium and inorganic albumins.

Under the effect of passing years and the erosion caused by the water's movement, coral turns into sand. If the temperature rise persists for four weeks, it becomes impossible for the coral to find the algae necessary for them to survive. 78

Algae Allow Jellyfish to Live

Masses of water produced by seas of parts of seas in certain regions of the sea are very impoverished in terms of food. Like coral, the jellyfish that live in such regions start looking for algae to absorb into their bodies, as if they knew where to find the nutrients they require. Under normal conditions, jellyfishes feed by catching small fish and crustaceans with their

tentacles. That is impossible in infertile seas, however, which is why they embark on a shared life with algae. They detect algae with their tentacles and absorb them into their bodies without digesting them.

To obtain the necessary energy, jellyfishes head straight for the surface of the water, the region receiving the greatest amount of solar energy in the early morning. As the Sun travels from East to West in the sky, jellyfishes also follow its movement and face the direction of the Sun. A very large community of jellyfish can form a vertical wall extending up to 700 centimeters (22.97 feet) deep forms in the area where solar light strikes the water. If a beam of sunlight occurs between objects in the waters, jellyfishes make the most of the opportunity and line themselves along the beam in such a way that every one can see the sunlight. In short, wherever the Sun is, there the jellyfishes are, to obtain the energy necessary to nourish themselves by means of photosynthesis. In darker waters that do not receive sunlight, no trace of jellyfishes can be found. As the Sun sinks, the jellyfish come to the centre of the water they are in. When darkness falls, they feed on nitrates they produce themselves or find in the water.

In order to do all these extraordinary and completely rational things, jellyfish have been equipped with sense organs capable of detecting light at high and low concentrations. 78 These enable them to make their daytime migrations to the brighter light in the water. The fact that a jellyfish has a delicate, light-sensitive system from which its symbiotic relationship benefits is not something to be ignored. Jellyfish never mistakenly absorb any other organism or a different species of algae into their bodies, only those species that will be of use. Jellyfishes have no eyes or brain, and consist largely of water. They need to establish whether there is a chloroplast in the living cell they touch. The way that they carry it straight towards the Sun instead of feeding on other organisms around them, shows that they know what will nourish the algae cells they have absorbed into themselves. Jellyfishes have known the properties of algae for millions of years. The way they use them for their own benefit reveals the existence of Allah's extraordinarily superior creative artistry.

Algae Provide Protection for Slugs

Sea slugs with no shells live on corals and other hard marine surfaces. Since they have no shells they appear to be defenseless, but are protected from their enemies in a special way. Slugs are camouflaged by assuming the color of the coral they live on. The sole reason for their being the same color is algae.

These creatures that feed with corals separate the algae in the coral tissue as they digest it and keep the algae alive. The slug possesses a special mechanism to enable it to do this. It moves the algae cells it ingests from its stomach toward the tentacles on its outer surface and enables the algae to remain alive there. In this way, the defenseless sea slug is provided with perfect camouflage.79 The sea slug has now changed color thanks to the algae it has absorbed into its body and is much harder for predators to recognize.

Can a sea slug see colors? Is it aware of what color the coral is, and can it imagine that it will be inconspicuous to predators by assuming that color? How can it know that the algae gives coral its color and that it needs to separate out the algae from the foods it eats? How does it keep them alive in its body and move them to its extremities? In order to establish this technique, it must first calculate by what means it can avoid danger, then identify the source of the color in the coral, produce enzymes that prevents the algae from being digested, and develop a mechanism for transporting the algae that extends through its body. These are exceedingly complex and scientific processes that require long research and study by humans, yet they are performed very easily by a sea slug unaware of its own existence and other things around it, at every moment and by all other members of that species. This tiny living thing succeeds in all these miraculous processes that human beings cannot perform, and is one of the proofs of the absolute existence of Allah. It draws people who know and appreciate Allah closer to Him. It also deals a major blow to the Darwinism that seeks to conceal the existence of Allah from people and that deifies coincidences.

Other Living Things that Algae Benefits

The flamingos we are used to perceiving as red actually draw their color from a very particular source: Algae. The algae that flamingos eat endow them with their own unique color. The algae that enter the bird's body spread all through it and impart their color to its feathers. 80

In addition, algae assist with the feeding of large sea combs. Zooxanthellae a small species of algae, is a microorganism that can live only in the bodies of other living things. It regards the sea comb as the safest place for it. Large sea combs provide these tiny, green algae with a comfortable environment in which to live and protect them from enemies. In addition, the sea combs provide the algae with such nutrients as carbon dioxide, nitrogen and phosphorus. In return, of course, substances produced by Zooxanthellae constitute the main foodstuff of the sea combs. 81

The proponents of the theory of evolution have advanced a number of scenarios about algae. According to the most widely accepted tale, algae are a primitive form of life that evolved and enabled plants to emerge. Here, the evolutionist obsession that we can summarize as "What is ancient and small is primitive" reveals itself here. As you saw earlier, the bacteria and viruses that evolutionists describe as "primitive" possess astonishing features and complex mechanisms; and algae assume vital functions in the continuation of life on Earth. These points are either glossed over or never mentioned at all in evolutionary scenarios.

There are fundamental questions to which the adherents of the theory of evolution have to give concrete replies. According to scientific research, algae emerged suddenly, in the form they possess today, some 3.5 billion years ago on rocks in South Africa. Like algae, bacteria also appeared suddenly in the same period and bear the same features now as they did then. No primitive entity that can be proposed as the ancestor of these living things ever existed. The fact is, these microorganisms have existed in the same form for billions of years, unchanged down to the present day. They never underwent evolution at any time.

Algae are one of the Earth's sources of oxygen and also a food resource, superior marvels of Creation that provide a number of benefits for all living things, from the smallest entities in the sea to the largest animals on land, and even for human beings. Not only do they keep themselves alive, they also enter the bodies of other living things and perform useful functions for them. All this is great and incomparable proof for those who wish to see the absolute existence of Allah. On this subject Allah reveals:

Allah Who creates as He creates, so that all creating seems the same to them?' Say: "Allah is the Creator of everything. He is the One, the All-Conquering." (Surat ar-Ra‘d, 16)

5. FUNGI, MOULDS AND YEASTS

Fungi are plants that do not contain chlorophyll. They often cause diseases in the bodies of the living things they enter, generally by causing infections. At the same time they meet a large part of the food and mineral needs of living things on Earth and are essential to the survival of life on the planet. Around 90,000 different species have been described.

According to some estimates, there are 1.5 million known and unknown different species of fungi. 82

Fungi generally multiply in the dark, in moist environments and everywhere there is organic matter. They prefer warm environments. Even though they do not multiply readily in the cold, it is still impossible to kill them by freezing. At cold temperatures, they enter a kind of hibernation and wait for warmer temperatures to come.83 Of the 55 species of fungus found in the human body, almost 30 cause diseases. The others are harmless. 84

Fungi also take the form of moulds and yeasts, depending on the functions they perform and their characteristics. Yeasts used in the fermentation process, and the moulds used in the manufacture of drugs and food, are actually nothing more than different species of the fungi that can cause sickness and death in plants and animals. Fungi predominate over a large part of the Earth. Elaine Ingham of Oregon State University has calculated that when all the fungus mycelia in just one teaspoonful of forest soil are laid end to end, they can stretch for 1.5 miles (2.4 kilometers), and that they will weigh 4,000 times more than all the bacteria in that same soil specimen. The fungi in a teaspoonful of soil from humid forests at sea level will stretch for 65, or even 650 kilometers (40 to 400 miles).85 This high level of incidence of fungi on Earth is of the greatest importance to maintaining life. Let us consider this subject under another heading.

FUNGI ARE ESSENTIAL TO THE CONTINUATION OF LIFE ON EARTH

Fungi have one essential feature: They break substances down, reducing complex organic substances into simple organic compounds and inorganic molecules. They break up nutrients that other living things cannot ingest into simple compounds that they can. In doing so, the obtain their own vital energy. Unlike other living things, fungi do not digest food after eating it. They digest, or dissolve it first, and then eat it. They release a special enzyme to break down the substance they are going to eat into its

separate compounds. By this method they are able to break down organic matter around them. Fungi consist of, thin fibers divided into branches known as mycelia, whose cells expand at great speed for food digestion.

This can be viewed more clearly under a microscope. These protracting arms release enzymes that can break down and digest almost anything organic, even solid substances. The dimensions of the micro-fibers are just 1/100,000 inch, (almost 2,54 centimeters) and a new branches form every half hour. This growth is so rapid rate that the total length of the cells emerging from a single fungal spore multiplying at that speed over two days can reach hundreds of kilometers. 86

These arms permit the fungi to reach a wide variety of places. These arms and the enzymes make fungi one of the most fundamental living things, apart from bacteria, that turn organic and inorganic substances into simpler molecules. This transformation is vitally important because some living things lack the ability to absorb complex organic substances into their bodies, and first need them to be separated into simpler components. Fungi turn these complex substances into simple organic ones for other living things to make use of.

The enzyme secreted by the fungus turns that source of food substance into smaller molecules. The fungus absorbs its nutrients into itself, but, thanks to the remaining enzyme broken-down organic substances remain. Fungi permit important elements like carbon, nitrogen and phosphorus to be released and made ready for use by other organisms. As this breakdown occurs, carbon dioxide necessary for photosynthesis is released into the atmosphere and important minerals return to the soil. This breaking down process is very wide-ranging. Fungi can break down dead plants, dead animals, dyes, shoes, plastics, paper, clothing and even petrolium. 87

What would happen if this process did not take place? All the basic nutrients for the continuation of life would remain locked up inside dead animals and plants. These nutrients could not be released and returned to the ecosystem. Since one of life's essential recyclings failed to take place, life on Earth would soon come to an end.88 Therefore, fungi are indispensable. Their only aim may be to secure their own nourishment, and they are likely unaware of the power of the enzyme they secrete in becoming the source of building blocks for all living things.

Fungi sometimes inhabit fertilizers and manure and carry out the breaking down process in these. This process is of great importance. Fungi begin the breaking down process in the fertilizer and consume cellulose. As soon as most of the cellulose has been consumed, the breaking down

process is then taken over by bacteria.89 This is the secret behind the usefulness to plants of fertilizers in the soil.

The fungus is also literally expert in turning foodstuffs into new cellular materials. If an excessive amount of foodstuffs needs to be digested, it conceals them in its own body in a large number of cells. Thus it not only stores for itself the food it possesses, it also expands its body to produces new deposits. Even if it has no immediate need for nutrients, it knows that it needs to store them in a manner inspired by Allah.

FUNGI'S SYMBIOTIC RELATIONSHIP WITH PLANTS

Fungi and plants enjoy a mutual assistance, and the fungus that enables this goes by the name of Mycorrhizae. More than 90% of the world's plants have such a relationship with fungi. Some plants grow stronger and are invigorated with the help of fungi, while others' survival depends on them entirely.

The breaking down performed by fungus in the soil provides minerals to nourish plants, which develop quickly and become stronger than before. At the same time, the plant feeds this fungus by providing it with sugar, amino acids and other important organic substances. For example, orchids that fail to enter into such a partnership life with fungi soon die and many forest trees gradually come to the drying stage. When fungi and fungus spores are applied to them, they revert to normal growth.90 To put it another way, fungi are essential to the life of plants, one of the most important components of life.

The Mycorrhizae that enter the tree roots and supply them with food also help the roots cling to rocky places. Furthermore, this fungus protects the pine trees' roots from various diseases. The only thing this talented fungus, which fixes the tree in position, protects it from various diseases and extracts and releases phosphorus, other nutrients in the soil and water to share with the plant, receives in return is a quantity of sugar. 91

In this simple example, the illogicality of the false mechanisms of evolution are plain to see. According to evolution, each living thing should be engaged in an individual struggle for survival, but here, they actually strive to keep one another alive. Moreover, the way that a plant possessing photosynthesis, seeds, and leaves that are a major source of oxygen stands in need of fungal cells too small to be seen with the naked eye, is another serious question for Darwinists. Despite structural perfection in all regards, plants still depend on other tiny living things. Their very special and complex systems are unable to extract food from the soil by themselves.

How can it be that this property does not occur in these superior species, but manages to occur in a microorganism?

As with the thousands of similar questions, Darwinists are in a state of grave doubt when it comes to answering this one. They propose an inconsistent process of evolution that never actually happened. Coming up with stories for such a fictitious process is hardly scientific. If microorganisms invisible to the naked eye accomplish what giant trees and different varieties of plant cannot, that exhibits the incomparable and superior intellect of Allah, Who created them.

Allah has revealed in the Qur'an:

That is Allah, your Lord. There is no god but Him, the Creator of everything. So worship Him. He is responsible for everything. (Surat al-An‘am, 102)

FUNGI CAUSE VARIOUS DISEASES

In addition to assisting in plants' growth and development, fungi can sometimes be invaders with lethal properties. A fungus can stealthily takes its place in the body of another organism and quietly take over. If this living thing is a plant, all its cells will soon become food for the fungus.

When it reaches a leaf, the fungus secretes an enzyme known as cutinase which dissolves the waxy layer covering leaves and stems. Following this, the fungus's main obstacle has been overcome and it can easily spread through the plant.92 But how can the fungus produce a special enzyme to overcome the waxy layer? In fact, this microscopic organism has been created together with a number of important properties that let it resolve this difficulty: an enzyme with has just the right properties to dissolve that waxy layer—neither too weak to dissolve that layer, or so powerful as to destroy the leaf entirely. Yet the microscopic secretion from this microscopic organism carries out its duty to the letter. Following this process, the fungus will behave in the manner inspired in it and begins to interpenetrate the plant to break it down as a source of food.

Another example is the species of fungus that takes over the branches of a pine tree. Once a fungal spore has settled on a damp pine needle, it germinates, enters the needle through one of its pores and deposits its germ tube inside. After the fungus has entered the needle's vascular system, it begins spreading towards the branch. Fungal filaments spread out in along the branch, penetrating everywhere they reach. As a result, the fungus eventually encircles the branch like a cuff, cutting off its flow of nourishment.93 Unable to receive sap, the branch soon dies.

In a forest there will be between 100 and 200 fungi species living in and around plants and trees. Some of these are active in the tree trunks or branches where they settle. The great majority of these are opportunists waiting to devour a tree when it is stressed or its limbs begin dying. There also fungi those wait underground, awaiting their opportunity. The canopy fungi wait patiently for a tree's branch to rot and fall to the ground.

Some fungi begin their activities while the tree is still alive. Trees are generally faced with some 15 fungus species that cause disease, but are not serious enough to kill the tree. They tend to cause diseases that are visible to the eye but that then pass away, rather like colds in humans. Some of these may, have permanent effects, however. For example, the diseases spread by these fungi may prevent the tree species growing a region from reproducing and thus restrict the area they grow in. 94

Fungi may sometimes cause problems in the formation of fruit and vegetables. The fungus known as Oomycota phytophthora generally invades tomatoes and potatoes, on a large scale that can have very serious effects. The great potato famine between 1845 and 1860 in Ireland was one consequence of this fungus. 95

Fungi can also invade the bodies of some animals. Most cause disease, some can even lead to death. Some deliberately kill so as to use their host's body as food. For example, one variety of worms known as nematodes, far smaller than earthworms, fall prey to the extraordinary traps set by fungi. When the fungi that nematodes are nearby they lay sticky traps to stop the worms from getting away. Even the simplest of these traps possesses three sensitive cells that sense the prey in one-tenth of a second. When these cells sense pressure, they contract and close up, catching their prey in the trap. This snare, consisting of fungal cells, forms a network that quickly grows and digests the prey within a few hours. Even if the worms that fall into the trap escape, and even if the spores of the fungus are only very few in number, they are still on the worm's body and sooner or later will grow. Consequently, the worm will die within one hour. 96

The existence of a carnivorous fungus is certainly surprising, yet the really astonishing thing is the fungus's ability to trap its prey. The most important question is how fungi, which are invisible and which we need technology to understand how they live and exist, came by the consciousness that let them set traps. The answer to that question leads any rational person to appreciate the existence of Allah. The way that microscopic living things develop such intelligent methods reveals that Allah has created the universe in perfect harmony.

FUNGAL METHODS OF SELF-DEFENCE

Like bacteria and other microorganisms, fungi take precautions and perform intentional processes they to ensure their own survival. When the temperature approaches the freezing point, these organisms form ice crystals around their bodies thanks to various chemicals. As you have already seen, bacteria and algae seek shelter in the upper layers of the atmosphere when they realize that conditions at ground level are becoming difficult for them, and seemingly decide to move to warmer locations by means of air currents. Once they have assumed the form of an ice crystal, to move up into the clouds with the wind. At an appropriate time and place, they then return to Earth as dormant, but living seeds. Thanks to this efficient method, algae are able to survive and also to spread around easily.

The way that a microorganism can use the chemicals around it by sensing when the temperature approaches the freezing point is doubtless a most superior attribute, and the method employed is a most practical one. This living thing needs to know in advance that it can be protected inside an ice crystal while in the clouds. It's of course impossible for it to learn this gradually, through trial and error, since this is not a conscious entity that can learn by experimentation, but a microorganism. This again reveals the illogicality at the heart of the theory of evolution and the frustration suffered by Darwinists. No evolutionary mechanism can account for a microorganism choosing to protect itself with such a complex mechanism, which it manages to achieve so easily.

Evolutionists will never be able to account for this, because Allah has created every living thing, every fine detail it possesses, and its every flawless feature. Living entities need not know beforehand the precautionary measures essential to their survival, or to discover them by trial and error, because they are under the control of Allah, Who protects them with His compassion. They do only what He tells them. They obey only Him.

MOULDS: ANOTHER VARIETY OF FUNGUS

Moulds are single-celled fungi with a single nucleus. They multiply by dividing, and assume the form of a colony by banding together. Mould cells are generally larger than bacteria's, egg-shaped, and possess most of the organelles found in an animal cell.

Moulds too can represent a threat to health by growing very quickly under the appropriate conditions. Some of them produce toxins in foodstuffs that can cause poisoning in humans and animals. Indeed, some of these substances are carcinogenic. Compared to bacteria, moulds need less food

and can survive and grow under worse conditions, and so generally have more opportunity to multiply in most environments.

Just as moulds feed on organic wastes around them, they can also feed on other microorganisms. Entomophtorales, a white mould, feeds on amoeba living in moist soil. When it senses an amoeba moving nearby, it seizes it and absorbs its cellular contents, leaving only the membrane behind. 97

However, not all moulds are harmful. They can serve mankind in a wide number of ways, from food production to drug manufacture. Moulds are employed in the manufacture of organic acids, various antibiotics such as penicillin, and some drugs that suppress the immune system, as well as of various antibiotics such as penicillin. The uses of moulds in this area are of very great importance

Moulds Are Used in the Manufacture of Certain Drugs

The effects of microorganisms on life can assume various forms. A particle of mould we may see on a piece of bread from time to time may actually be exceedingly important and affect a large part of our lives. The use of moulds in medicine is very important in terms of seeing that effect. Certain serious diseases, even fatal ones, have been totally eliminated with drugs developed with the help of these microorganisms.

In 1928, Alexander Fleming placed various species of bacteria in various experimental dishes and observed that moulds had formed in one of the dishes containing the bacterium Staphylococcus. in the layer in which the mould formed, he saw no trace of the bacterium that he'd expected to grow. He discovered that the mould—a species of fungus known as Penicillium notatum—had secreted a substance poisonous to the bacterium and eliminated it. The drug penicillin was produced by purifying this micro-organism's secretions.

Penicillin, the first effective treatment for bacterial infections, arose from the discovery of this mould's ability to kill bacteria. This mould has been protecting against deadly diseases for around a century, and is also used to manufacture a great many other medicines.

Cyclosporine, a drug used to suppress the immune system following organ transplants, is also produced from two species of fungus. Some fungi are employed in drugs to control bleeding, lower blood pressure, and lighten the pain of migraines.

YEASTS THAT PRODUCE FOODSTUFFS THROUGH FERMENTATION

There are around 600 known species of yeasts, single-celled fungi that can be spherical, oval or cylindrical in shape, and are 7 to 17 microns in size. One gram of yeast therefore can contain some 15 million independent cells of yeast.

Yeasts feed on sugar, and in an oxygen-free environment can produce from it ethyl alcohol and carbon dioxide.

This process, called fermentation, is of considerable economic importance. Yeast is the basic element in the making of various foods, giving bread its texture and flavor by producing tiny bubbles of carbon dioxide in the dough. Yeast is also used in fermenting soya, which produces low-calorie soy sauce. People who consume soy sauce enjoy vital amino acids provided by the combination of yeast and soya beans, so long as they do not take in too many calories. Therefore, yeasts are both nutritional and also serve in the production of useful foods.

LICHENS: FUNGI AND ALGAE SHARING A LIFE

Some fungi live symbiotically with algae, producing a new combination is known as a lichen. The fungus obtains food from the photosynthesis carried out by the algae, and thanks to the water and minerals in the fungus, the algae is protected from drying out.

This new living colony of these two microorganisms generally receives minerals from the air and rainwater. But it cannot resist toxins in the air, and so can survive only where there is no pollution. Temperature, on the other hand, has little impact on lichen's survival. Lichens thrive in both tropical regions and in cold areas such as the Arctic and the South Pole.

Lichens generally live in clean air, and on tree trunks, mountain peaks and bare rocks. As the fungus obtains food thanks to photosynthesis, carried out by algae, algae obtain minerals thanks to the way fungus breaks substances down. In addition, they also thus obtain a safe shelter. The lichens use their fungi to slowly break down the rock surface and lead to its being eroded by wind and rain. Some lichens are strong enough to break apart the strongest rocks.98 Thanks to this, soil forms as the rock breaks down. No other living thing can perform such a powerful process.

You would have to expend enormous effort to break a hard rock into minute particles. And after having broken the rock down into the smallest particles, you would have to subject it to various chemical processes to

obtain its component minerals. Only in this may might you be able to achieve a part of your objective. Yet microscopic organisms quietly perform this laborious, energy-consuming process without the need for pick or shovel or special laboratory conditions. There is an important contrast here; on the one hand is an intelligent, conscious human being, capable of making plans and mobilizing all kinds of resources. On the other hand, lichen is a microscopic living entity, unaware even of their own existence, with no other objective than feeding and reproducing. The way that such minute unaware entities display apparent volition deals a major blow to the theory of evolution and its claims. This microscopic organism to which they previously attached no importance is capable of undermining their theory in a way they never expected.

These organisms possess other features too. The algae that some lichens possess also contain colored pigments. One of them, orchil, is used to dye wools. Another, litmus, is used as an acid base (pH) inhibitor in chemical laboratories.

We are faced by a living thing both of whose members perform highly conscious activities and that have highly detailed features. A lichen carries out very conscious processes and can produce its own food, while breaking down rock to make simple organic compounds that other living things can use. The reproduction or spread of a lichen also displays the same conscious planning. Under difficult conditions or when they decide to multiply, lichens bud off a component known as the soredia, which bears the parts and features of both the algae and fungus. In order to multiply, it settles in a suitable place and produces a new lichen. If the lichen's algae die, or if the fungal member of the lichen wishes to change its partner for any reason, then it produces fungus spores that are carried by the wind and find new algae for themselves in new places where they have never been, under conditions of which they are unaware. 99

How and why these organisms combine to create a new living entity, and why they originally chose to live together, are difficult to comprehend. These two microorganisms can survive on their own, yet for some reason have decided to live in partnership. If all living species underwent developmental changes according to a process of evolution, then this shared life could have emerged only as the result of a very great need. Yet there is no such urgency here; algae and fungi are not forced to depend on each other. The lichens formed by their coming together are actually completely separate structures. The two species have joined forces to break down rocks and form soil, even though they themselves will obtain no

benefit. Like all other living things, they have submitted to Allah and act according to His inspiration.

In the Qur'an, Allah reveals that these entities contain important knowledge for those able to use their reason:

It is He Who originated Creation and then regenerates it. That is very easy for Him. His is the most exalted designation in the heavens and the Earth. He is the Almighty, the All-Wise. He has made an example for you from among yourselves. Are any of the slaves you own partners with you in what We have provided for you so that you are equal in respect of it, you fearing them the same as one another? In that way We make Our Signs clear for people who use their intellect. (Surat ar-Rum, 27-28)

6. MITES (AKARI)

The microorganism we have examined so far represent a whole wide world existing in huge numbers inside, outside and all around us, in short everywhere we are. Yet there is another living thing that is also part of this world and, like the others, also shares every environment with us. These living things, known as Mites, are tiny microorganisms with features no different to those of any insect in complexity that possess an exceptionally detailed and complex structure, and are just 5 to -50 microns in size, visible only under the microscope. They live everywhere, in every corner of your home, in the bed you sleep in, the carpets on the floor, the air you breathe, wherever you spend your life. These entities, resembling tiny fat spiders, cover every square centimeter of our environment.

These arachnids feed on dead skin cells, which is why they are found wherever humans are present and are spread about by means of human activity, to where their feeding materials collect—generally beds and pillows, furniture and carpets.

No doubt the fact that human beings cannot see them under normal conditions, is an example of Allah's wise Creation. They are present in such great numbers that even in your bed, no matter how clean it may be, there will be an average of 10,000 of them. Yet they do not bite, or sting or spread diseases. They do no harm, so long as you are not allergic to the proteins they produce.

However, they do, harm some other species. In fact, they can wipe out a bee colony in which they live as parasites, by piercing a bee's exoskeleton and sucking out their bodily fluids. They are able to injure many insects, animals and plants in the same way; yet still others provide various benefits. For example, mites cause insect pests to die or fall ill, and the waste products they produce also increase soil fertility. Some parasitize many animals species, living in their ear canals, lungs and intestines. According to species, mites can be found in differing locations—5,000 meters (16,400 feet) up on the slopes of Mt. Everest, or in depths of 5,200 meters (17,060 feet) down in the Pacific Ocean. More than 50 species of mite are known to live in the Antarctic alone. They can also be found in caves, deserts and tundra, in mines 10 meters (32.8 feet) deep, in the cold or in thermal springs with temperatures as high as 500C, in underground waters, lakes and pools. It has been estimated that there are more than 500,000 of these different species living in different habitats.100

During their life cycles, mites go through four stages; egg, larva, nymph and adult. This period between egg and adulthood lasts for about one month. The female egg-laying population increases by up to 25-30 times a week. Adult mites molt once and can live for up to two months, depending on environmental moisture levels and temperature.

Mites do not drink water, but absorb moisture from the air and their environment. Therefore, they prefer quite high levels of humidity, 70 to 80%, and temperatures around 270C101 When they find such a suitable environment, they can increase their numbers enormously. For example, there may be up to 6 million members in half a hectare of cultivated soil. 102

MITES HAVE VERY COMPLEX BODILY STRUCTURES

What kind of body does this invertebrate, living in a world we cannot see and that can be examined only under the microscope, possess? Does their body consist of a single cell? Or do they consist of several cells combined and a few organelles? Since they are so minute, they should have few details, features or organs. Under normal conditions these living things have no visible specific volume, and it would appear impossible for them to have complex features. So let us see: Is the mite body any different to that of other microorganisms?

Mites have oval exoskeletons covered with sparse hairs on them. The mouth at the front of this hard body has a special structure for piercing. Thanks to this special structure, the mite can tear into small pieces and consume the food it finds. Eight legs protrude from this oval body, and their feet are covered in a very important Creation—a sticky substance that lets the mite bury itself among carpet threads and deep folds in the skin. These eight legs are able to withstand even the most powerful vacuum cleaners.

This is just the external appearance of these microscopic creatures. The body of this creature, which is invisible to the naked eye but which lives alongside us at every moment, also has an inside. This mite, the existence of which we were perhaps unaware of until now, possesses quite wide-ranging internal organs:

Some mites can live in water as well as on land, but those that live on land breathe through a respiratory tube,103 immediately next to which is their feeding tube. Some mites have feeding apparatus sharp enough to pierce plant cells, with which they can easily suck up juices from the plant.104 In some mites, a rather advanced nervous system surrounds the feeding tube. The microscopic invisible mite even has a brain. A series of

nerves emanating from the brain operate the legs, muscles and the reproductive system. The nerves in the mouth organ are controlled by another part of the brain.

Of course, the mite must have a digestive system to obtain nourishment from what it eats. This consists of a pharynx at the front, a long, narrow esophagus, a stomach, a short intestine and an intestinal cavity at the back. The stomach has double sacs or ventricles that serve partly as food storage organs, and allow some mites to survive for long periods without eating.

The mite also possesses excretory organs that can open off the rear intestine. These collect waste products in the body cavity and transmit it into an organic compound known as guanine. This passage as far as the excretory organs takes place in a manner familiar to us: Blood circulation. The blood flows through the mite's body by means of its heart and the movement of various muscles. 105

Mites also have reproductive organs, of course. Sperm transfer either takes place directly or inside packages known as spermatophores, by means of which the male deposits its sperm directly into the female's genital organ. Some males produce a small packet for their sperm, which they pass on to the female genital area, either directly from the male's mouth region or indirectly through a sediment on the surface.106 Shortly afterward, the female lays her fertilized eggs.

Inside the body of this creature, Allah has placed very wide-ranging, diverse and complex organs. Each has been carefully connected to the next, and systems essential to this entity's survival has been created flawlessly in its microscopic body. Could the imaginary mechanisms of evolution give rise to just one of these mites digestive or nervous system? For such an irreducibly complex system, it is of course impossible. Every detail in the tiny mite again deals a fatal blow to the theory of evolution.

Perhaps we should now be considering the following question: Should we be surprised at the bodily systems of a microorganism, at the heart that pumps blood or the brain, which consists of nerve networks, or at the single-celled creatures which lack these yet still provide the world with nutrients and oxygen, provide their own nutrients through division of labor and sometimes protects our bodies against toxins? These are all incomparable manifestations of the infinite intellect, artistry and knowledge of Allah, our Creator. As science and technology advance still further, new discoveries will be added to these, and the truth of this superior Creation will be confirmed still more, with further proofs undermining Darwinists' theories.

In the Qur'an, Allah states:

Is He Who creates like him who does not create? So will you not pay heed? If you tried to number Allah's blessings, you could never count them. Allah is Ever-Forgiving, Most Merciful. (Surat an-Nahl, 17-18)

MITES ARE IMPORTANT CLEANSERS

In the environments in which mites live, there is household dust, fabric threads, particles of human and animal skin, shed hairs, bacteria, mould spores, food particles and other organic and synthetic substances. Mites feed on these, which is why they live in such close proximity to human beings. From that perspective, you can see that a great portion of these tiny arachnids help clean up the world, eliminating the scales, secretions, dusts, fungal spores, pollen and plant fibers that constitute their diet.

The mites around us to perform this function are really very numerous. There are roughly 1,000 mites in one teaspoonful (1 gram) of house dust.107 These large numbers of mites are constantly active, engaging in highly effective cleaning. Were it not for mites, these micro-wastes would grow every day, until the Earth became uninhabitable.

Some mites benefit their surroundings still further, even though they are unaware of the fact. For example, mites of the species Pyemotes tritici generally multiply on stored cereals, dried beans and peas, in haylofts, and dried grass. They are highly useful to farmers because they paralyze and eliminate insects that feed on stored cereals and similar products.

MITES BEHAVE CONSCIOUSLY

In difficult situations, mites display methods of protecting themselves. Clover mites, for instance, enter hibernation when the winter or summer climate does not suit them. When they realize that temperatures are above or below the interval they need to live, they slow down some of their metabolic functions and go to sleep. Now in suspended animation, these living things are unaffected by the conditions around them. When the temperature returns to an favorable level, they return to their former state and resume their lives.

Some mites use their insect and arthropod hosts to transport them to different locations. Mites of the species Dinogamasus for example live in a special sac on the stomachs of certain bees and can thus easily go to the sites they wish and where they can find food.108 In order for this process to take place, such a sac must first be specially created for mites in the bee's

stomach. The mites in turn must be aware of this and think of using it as a means of transport. These arthropods lack the intellect to arrive at such a mutual agreement, and under normal circumstances, they should not sense the need for any such thing.

Mites are found all over the world and can multiply very rapidly. Also, there appears to be no need for a bee to undertake the difficult and tiring effort of placing mites inside itself. According to Darwinism, no living thing in fight for its own survival should be helping another species with no expectation of reward. This example therefore, shows once again, the deceptive nature of the theory of evolution.

Certainly it is very difficult for evolutionists to account for how different species assist one another in this way. These creatures lack the spirit of mutual agreement and solidarity that human beings possess. This and similar examples in nature are clear proof that everything in the world has a single, superior Creator. Everything functions in the manner set out by Allah, with His permission and according to the destiny determined by Him. "There is no creature He does not hold by the forelock" (Surah Hud, 56).

In another verse, it is revealed:

That is Allah, your Lord. There is no god but Him, the Creator of everything. So worship Him. He is responsible for everything. (Surat al-An‘am, 102)

7. THE EVOLUTIONIST IMPASSE THAT EMERGES WITH THE MICROORGANISMS

What can be the reason for the existence of the boundless universe? Planets thousands of kilometers in size, suns with surface temperatures of millions of degrees, billions of galaxies containing trillions of stars, space with its magnetic fields and gravitational forces . . . all these? The answer is evident: For us to appreciate the existence and greatness of Allah.

The frontiers of this sublime creation are so wide, yet even the existence of a single atom it is enough to demonstrate Allah's Creation. He has created detail upon detail, perfection upon perfection, and flawlessness upon flawlessness. Besides bringing into being a universe with extraordinarily delicate balances and flawless systems whose boundaries we can never fathom, Allah has also created this micro-world. We are aware of it only through microscopes, but it nevertheless also possesses the same delicate balances, fine details and flawless systems. Allah displays His artistry both in the boundless depths of space and inside a single cell, leaving no doubt that He is Lord of everything in the Earth and skies. He has revealed in the Qur'an:

He is Allah—the Creator, the Maker, the Giver of Form. To Him belong the Most Beautiful Names. Everything in the heavens and Earth glorifies Him. He is the Almighty, the All-Wise. (Surat al-Hashr, 24)

This superior artistry brings with it insuperable obstacles for the theory of evolution. Every aspect of the world possesses its own innumerable details. It is impossible for a theory based on coincidence to account for even one of these details. The microorganisms we have examined here make a very strong refutation of the theory of evolution, according to which, the first living thing to appear and later, gradually evolve, was a microorganism.

Fictitious classifications divide animals and plants into various phyla, classes, and orders, and it is claimed that each division evolved from the one before. Again according to this theory, the living world with its present extraordinary variety constitutes the latest branches of this fictitious tree, or which a single-celled microorganism is the common ancestor. If we now

remove this microorganism from the tree, nothing will be left—neither animals, nor plants, nor human beings, nor species. In short, nothing at all. In fact, all the different features described throughout this book, and hundreds of others besides, reveal that microorganisms cannot be the works of chance. That being so, the so-called "first living thing" that supposedly initiated evolution cannot have come into being spontaneously.

These tiny living things, which have co-existed alongside us for millions of years and directly influence our lives, but whose existence we discovered only a century ago, display seemingly conscious behavior. They can develop tactics like a strategist, devise formulae like a chemist, and work like a laboratory technician. But even these analogies fail to do them justice. A human may err or forget, yet the chances of these microorganisms making a mistake are virtually non-existent. They also possess capabilities superior to any laboratory's. Many of the processes they perform still cannot be carried out artificially.

Darwin, and the Darwinists who came after him, insisted for many years on classifying these living things as simple . Only in the 1940s did they suddenly learn that microorganisms also have a complex genetic structure. In 1944 they saw that, starting with bacteria, all living things have DNA.

The science of genetics opened the doors of a discipline that evolutionists had never conceived of, and had never expected. Another element —and a most wide-ranging one!--was added to the living world they were already incapable of explaining.

Research has shown that some of these entities provide 70% of the Earth's oxygen, that others break down organic molecules, that some carry out the nitrogen cycle. A great many clean up the Earth and play a vital role in many other similar, vital mechanisms. Without these microorganisms that Darwin called "simple," there would be no life at all.

Darwinists sought a solution by ignoring the various facts revealed by genetics. Indeed, examine whichever evolutionist work you like, and you will see that it refers to the features of microorganisms only briefly, sometimes not at all. The few evolutionists who do mention them must admit that these facts place them a grave quandary:

This unique sequence represents a choice of one out of 102.000.000 alternative ways of arranging the bases! We are compelled to conclude that the origin of the first life was a unique event, which cannot be discussed in terms of probability.109

Another example reads:

Above the level of the virus, the simplest fully living unit is almost incredibly complex. It has become commonplace to speak of evolution from amoeba to man, as if the amoeba were the simple beginning of the process. On the contrary, if as must almost necessarily be true life arose as a simple molecular system, the progression from this state to that of the amoeba is at least as great as from amoeba to man. 110

Darwinists may admit that these tiny organisms have a very complex structure, yet still refuse to regard them as miraculous works of art created by Allah. They insist that the impossible took place by chance, even if they do not really believe that. Evolution is an ideology, founded on believing in the impossible instead of in the existence of Allah, whose goal is to make people believe the impossible.

There are no experimental evidence and no scientific results to support it. As Phillip E. Johnson has commented:

Power to create complex plants and animals from bacteria is also more a philosophical doctrine than an empirical one. . . . 111

To witness this fact more closely, consider the discrepancies among evolutionist claims regarding the structure of microorganisms.

MICROORGANISMS REFUTE EVOLUTION

Evolutionist claims maintain that the first characteristic acquired by the first bacterium was the ability to produce its own food, via photosynthesis. In fact, however, even in that portion of photosynthesis that's currently understood, all the processes performed are exceedingly complex chemical ones. In order to carry them out, you first need to produce a system to perform those processes, and then squeeze them into minute organelles inside a cell. Yet it is quite impossible for you to create such a laboratory. That being so, it's utterly illogical to claim that such a superior technology came into existence by chance in the first living cell.

The German evolutionary biologist Hoimar von Ditfurth describes the complexity possessed by algae—the most important source of photosynthesis and thus of great importance from the evolutionist perspective:

The oldest fossils discovered to date are algae with no nucleus fossilized inside minerals, and date back more than 3 billion years. No matter how primitive they may be, even these manifest relatively complex and expertly organized life styles. 112

To review how these organisms represent a quandary for evolution:

These microorganisms possess exactly the same forms today as they did millions of years ago. Yet according to the illusory process of evolution,

their forms should have gradually changed to give rise to wide-ranging life, and should have lost their "simple" states. Clearly, that is not the case. Fossils from the past, are important evidence that they never underwent evolution at all. Fossilized mites from 400 million years ago are identical to present-day mites. 25-million-year-old bacteria spores have remained unchanged and have continued multiplying alongside present-day bacteria. Present-day algae are the same as fossilized ones dating back 3 billion years. This "sameness" disquiets proponents of Darwinism, who are unable to account for the living species that have undergone no changes despite the passage of billions of years, maintaining the exact same complexity.

Despite their consisting of one or at most a few cells, all the systems necessary for these microorganisms to survive must be present. Every one of these structures is of vital importance. Remove any one, and it becomes impossible for the organism to survive. Therefore, though it possesses just a few organelles, a bacterium must exist together with all of them. This makes it impossible to have developed over time, in stages. In any case, exceedingly complex processes such as photosynthesis or the nitrogen cycle represent evidence that no such gradual transition could have taken place. The mechanisms that carry out these chemical processes inside a single cell cannot have developed over time. A bacterium cannot exist without all these features, and cannot survive if even one of the proteins that constitute it is missing. Yet the necessity of sudden development contradicts Darwin's theory.

According to Darwinists, evolution began with microorganisms. Single-celled algae living in water underwent changes and later, emerged onto land. First of all, it is impossible for algae, with prokaryotic cell features, to suddenly develop eukaryotic features and turn into a plant. The type of cell cannot turn into the other. Second, algae requires a special metabolism and various systems to live in water. To live on dry land, its entire metabolism must change to adapt to the land environment. That is impossible, even for the single-celled algae.

The theory of evolution cites the transition of algae from water to land as proof. However, this is not proof at all. Despite being members of the same family, land and water algae have totally different characteristics. Algae on land have metabolisms suited to life on land. In the same way, aqueous algae can survive only in water. As you have already seen, it is impossible for them to adapt to life on land by altering their metabolism.

The theory of evolution cannot account for the mutual relations among these microorganisms. Sometimes permits both parties to benefit from the relationship; at other times one species labors as a volunteer while

only the other benefits. The way that two living things co-exist in union rather than in competition with one another, each making sacrifices for the other, totally undermines the "survival of the fittest" mandate of evolution.

One of the questions that leaves Darwinists in a quandary is why these microorganisms make such huge efforts for the sake of life on Earth. Why does a bacterium decide to provide the Earth with oxygen? Why does a mite feel the need to cleanse its environment? Why do algae provide food for the fungi they inhabit? Why does a virus even smaller than a bacterium invade living cells, and cause an organism billions of times larger than itself to fall ill or even die?

Or why are microorganisms indispensable for certain processes? For example, why can't we absorb Vitamin K directly from the food we eat, and depend on bacteria to meet that need? Why cannot plants absorb nitrogen, one of their fundamental requirements and which makes up 80% of the atmosphere, directly from the atmosphere, but do so with the help of microorganisms in the soil? If evolution had really taken place, then bacteria's transformation of the nitrogen in the air into nitrate and ammonia and being given to plants in that way would be impossible. From all these questions, which evolutionists will never be able to answer, it becomes clear that no such process ever took place.

8. INSECTS: ONE OF THE GRAVEST DILEMMAS FACING EVOLUTIONISTS

The preceding chapters examined the extraordinary abilities of microorganisms, their complex structures too small to be seen with the naked eye, and the invalidity of evolutionist explanations. But insects are even more interesting than microorganisms, and present just as great a dilemma for the theory of evolution.

Insects occupy a very different niche than other species. As the fossil record shows, insects have been around for at least 400 million years. Over that time, various catastrophes have taken place, and large numbers of animal species have become extinct. Insects are among the few living things not to have been affected. With their superior creation, they have spread and multiplied in every kind of environment—deserts, forests, lakes, volcanoes, water, even icebergs, and in short, anywhere at all.

Some insects prevent their bodies from cold by producing a form of antifreeze. This lets them live on the high peaks of the Himalayas, while others endure temperatures above 47 °C in the Sahara Desert.

There are so many species of insects that scientists cannot come up with an exact figure. Insects constitute three-quarters of all the animal species known today. According to the latest research, the total number of insect species is between 2 and 30 million. Only 370,000 of these have been described so far. Also, moreover, up to 15,000 species of fossil insect have been found. Their total numbers are estimated to exceed 1 trillion and their total weight, 2.7 billion tons—a figure equivalent to 45 billion human beings. In other words, there are more than 170 million insects for every human being.113 As you can appreciate from these extraordinary figures, insects also constitute a major link in the food chain.

As we'll show in the sections that follow, evolutionists would dearly love to live in a world without insects. These creatures emerged suddenly in the fossil record, have no alleged ancestors behind them, possess exceedingly complex organs and, most important of all, exhibit an enormous variety—all of which creates problems that the theory of evolution cannot answer logically.

THE CREATION IN INSECTS

Were you to examine each of the millions of species of insects one by one, you would see that each family possesses very different structures. In terms of their wings alone, many varieties of insects bear no resemblance to one another. Butterfly wings, for instance, have a completely different structure from those of flies. In the same way, the dragonfly has a totally different body structure than the locust, the cockroach than the ant, and the bee than o the flea. There's no room here to examine all the different features possessed by insects, though we can survey certain common structures.

The Carapace

Of the features that allow insects to live in all sorts of climatic conditions, heading the list is the chitin shell that forms the outer surface of their bodies. Insects have no skeletons, but rather, a so-called exoskeleton that surrounds them like armor. Its main component is chitin, which is exceedingly thin and light, which means that insects have no difficulty in bearing its weight. In addition to covering the insect's body, it is strong but very flexible. It can move as the muscles inside the insect's body expand and contract. This makes the insect very fast-moving, and also reduces the impact of any blows from the outside. This special substance also prevents water from entering; neither can fluids inside their bodies escape. They are less affected by heat and even by radiation. Their exoskeleton's color generally matches that of their surroundings, though. It may sometimes be shiny, to deter enemies.

Scientists and designers have dreamed of being able to produce chitin artificially. Since the First World War in particular, designs for vehicles produced using chitin have been made.

Flight Systems

According to the fossil record, insects have been flying for at least 350 million years, without any needing for feathers. Naturally, accounting for insect flight is even more difficult for evolutionists who cannot convincingly explain how birds came to fly. According to the fossil record, insects suddenly emerged in their present-day forms, some 350 to 400 million years ago. Another problem for the theory of evolution is how insects have come down to the present without undergoing any structural changes. In other words, there is no difference between a cockroach or dragonfly alive 400 million years ago and specimens alive today.

Insects' different flight systems are still other examples of creation. Many species have flying abilities superior to that of birds. The monarch butterfly is capable of flying from Canada in north America to Mexico. Flies and dragonflies can hover in the air. In addition, insects' wings also display wholly different structures. Some species have only two wings, and others four—and grasshoppers have two wing casuings in addition! Some beetles' wings fold inwards and have a protective casing; others have membranous wings, and others, like butterflies, ones covered with microscopic scales. Every type of insect wing exhibits its own unique perfection. Their wing joints are made of a special protein called resilin, which has perfectly elastic properties. Chemical engineers are still trying to produce this substance, whose features are far superior to those of both natural and man-made rubber. By means of stretching and contracting, resilin stores and can give back as much as 96% of the energy loaded onto it. Thanks to this, some 85% of the energy an insect expends in raising its wing is used again when it lowers the wing. The insect's chest walls and muscles have also been created to permit such energy storage. This allows extraordinary energy to be released, making it possible for insect wings to beat between 200 (for honeybees) and even 1,000 times a second (in sand flies). 114

Evolutionists suggest that some of the chitin layers in the insect's thorax turned into wings. They must know how weak that claim is, because they also state that there is no fossil to verify this. Various scenarios have also been produced to explain how insect flight evolved. According to the so-called tracheal theory, when insects living in water emerged onto land, they developed wings from the trachea in their thoraxes. The invalidity of this theory was revealed the moment it was unveiled, because the same muscles found in aquatic insects' gills are not found in wings. Furthermore, there is no evidence of transitional fossils to show that insects went from a wingless phase to a winged one. On the contrary, fossils reveal no "primitive" insects. Even the oldest known insects had the same perfect flight systems as those living today.

The second scenario, the so-called paranotal theory, maintains that certain regions in the thorax expanded, flattened out and gradually assumed the form of wings. According to this claim—for reasons unknown to evolutionists—only two of the three sections in insects' thoraxic regions exhibited this alteration and thus gave rise to wings.

One can see a similarity in the way that evolutionists seek to account for bird flight. However, elements in both scenarios make them invalid and illogical. The most important of them is that the fossil record invalidates these claims. Secondly, wings possess irreducible complexity: they function

only if they exist as an entire unit. The half-wing or newly emergent wing suggested by evolutionists would be worse than useless. Third, in genetic terms, no mutations that can add new beneficial features to a species or improve already existing ones. For that reason, if a flight system were not already determined in a creature's DNA, it is impossible to add new "flight-worthy" data to that DNA via random mutations.

In other words, blind coincidence can produce no new information in nature. In order for an organ like a wing or an eye to form, there needs to be a Supreme Creator. Yet there is no such consciousness in nature. In any case, evolutionary scenarios tend to cite the world view imagined by the person drawing up the scenario, rather than scientific details. Ideological obsessions weigh heavier than facts in the shaping of these conjectures. The well known French zoologist Pierre Paul Grassé admits the truth of this in the words, "We are in the dark concerning the origin of insects." 115

In fact, however, that the flawless creation in the fly wing invalidates all claims of chance. In an article published in the journal Scientific American, Robin J. Wootton from Exeter University comments on insects' flying abilities:

Insects include some of the most versatile and maneuverable of all flying machines. ... some insects-through a combination of low mass, sophisticated neurosensory systems and complex musculature-display astonishing aerobatic feats. Houseflies, for example, can decelerate from fast flight, hover, turn in their own length, fly upside down, loop, roll and land on a ceiling-all in a fraction of a second... The better we understand the functioning of insect wings, the more subtle and beautiful their designs appear. Earlier comparisons with sails now seem quite inadequate. The wings emerge as a family of flexible airfoils that are in a sense intermediate between structures and mechanisms, as these terms are understood by engineers. Structures are traditionally designed to deform as little as possible; mechanisms are designed to move component parts in predictable ways. Insect wings combine both in one, using components with a wide range of elastic properties, elegantly assembled to allow appropriate deformations in response to appropriate forces and to make the best possible use of the air. They have few if any technological parallels-yet. . 116

Look at the dragonfly, which evolutionists describe as "more primitive" compared to other insects, and it becomes apparent just how ideology-oriented such claims are. Dragonflies cannot fold their wings, the way their muscles cause the wings to move is different from that in other insects. Solely on account of these features, evolutionists claim that dragonflies are

"primitive." Yet the dragonfly's flight system is actually a marvel of creation. Leading companies have produced helicopter models in imitation of this flight system. Photographer Gillian Martin undertook a two-year study aimed at investigating dragonflies, and the information he obtained showed that these insects possess very sophisticated flight systems.

The dragonfly abdomen gives the impression that it's covered in chain mail. Its two pairs of wings are located diagonally on top of its thorax, whose colors of which range from ice blue to burgundy. Thanks to this wing structure, the dragonfly has considerable maneuverability. No matter what its speed and direction of flight, it can suddenly halt and reverse course, or else hover in the air, waiting for an appropriate moment to attack its prey. It can also approach its prey by making a convoluted, curving approach. It can quickly reach a speed of 40 kilometers (24,85 miles) an hour— quite astonishing for an insect—at which rate it seizes its prey.117 The shock of the impact is very strong, but the dragonfly's exo-armor is both very strong and very flexible. Its flexibility absorbs the shock of the impact, even though the same cannot be said for its prey, which is either stunned or killed.

Following the moment of impact, the dragonfly's powerful rear legs enter the equation. During flight its legs are folded up, then quickly opened to seize the prey. Now the lower jaws quickly tear the prey apart and devour it.

The dragonfly's visual ability is also flawless. The dragonfly's eye is regarded as the best insect eye in existence. Its two eyes each possesses around 30,000 lenses.118 These hemispherical eyes cover most of its head, giving the insect a wide field of vision. Thanks to these eyes, a dragonfly can almost a good deal of what is going on behind it.

As you can see, the examples cited by the proponents of the theory of evolution are meaningless. Like every other insect, the dragonfly has been equipped with systems that are marvels of creation. To dismiss any one of them as "primitive" is the result of either lack of understanding, or else a deliberate distortion. There is no difference at all between the oldest dragonfly fossils yet discovered and specimens alive today. Neither is there any trace of any half-dragonfly or dragonfly just beginning to develop wings that have lived prior to these oldest fossils. Like other species, these species emerged suddenly and have survived unchanged to the present day. The perfect, complex flight systems encountered in various insects emerged from a superior creation, not from imaginary stage-by-stage scenarios. Allah created all these living things, and none underwent evolution.

Feet

Not only do insects possess perfect flight or exceedingly complex visual systems; when examined individually, insects also display organs and systems, each of which is a marvel of creation. Scientists who recently investigated the feet of the ant encountered not only a perfect creation that could inspire robot manufacturers. Massachusetts University biologist Elizabeth Brainerd and her team, in partnership with Harvard and Würzburg Universities, investigated the way ants and bees can walk upside down on ceilings, or vertically on walls, and arrived at interesting conclusions. They filmed ants and bees moving quickly along glass surfaces, and found that the sticky features on the feet of these insects were different from those of other animals. They cited the gecko, a species of lizard, as an example. With every step, Geckos scrape the sticky pads on their feet along the surface they are walking on, which leads to very slow, deliberate movement. The system possessed by insects, on the other hand, exhibits a much more dynamic structure. As Brainerd comments:

The feet of ants and bees are surprisingly complex structures, says Brainerd. Each foot, viewed through a microscope, has a pair of claws that resemble a bull's horns, with a sticky footpad called an arolium positioned between the claws. When the insects run along a surface, she explains, the claws try to grasp the surface. If the claws are unable to catch onto the surface, they retract and the footpad comes into action. The footpad quickly unfolds and inflates with blood, protruding between the claws and enabling the adhesive pad to stick to the surface. The footpad then deflates and folds back. The entire process takes just tens to hundredths of a second, and is repeated with each step, rapid-fire, as the insects skitter along. In addition, the footpad secretes a fluid that allows the insects to adhere to smooth surfaces, "the same way a wet piece of paper can stick to a window," says Brainerd. The dynamic nature of the arolium provides varying levels of stickiness, depending on the surface. 119

The researchers also discovered that the tendons controlling the claws are responsible not only for retracting them, but also for moving the feet pads. This system is a perfect combination of mechanical and hydraulic systems. By imitating these systems, manufacturers are working on the production of miniaturized robots to be used in medicine.

Antennae

Insects' antennae, which also impart a pleasing aesthetic appearance. makes these invertebrates creatures aware of what is going on around them. Their antennae perceive and analyze the chemicals they use to

communicate with one another by. Although antennae are sometimes regarded more as feelers to augment their sense of touch, their basic function is to provide the insect with a sensitive sense of smell. A large number of olfactory nerves are arranged along the antennae, and these detect the aromas of foodstuffs and identify the chemical messengers or scent-bearing molecules known as pheromones belonging to the opposite sex. Communal insects like ants and bees, also used their antennae to establish identity and for chemical communication. They analyze the chemical signals released by others by touching them with their antennae and determining whether they are friends or foes. Mosquitoes can perceive sounds through their antennae.

When one examines the countless features of insects, such as their sensitive antennae, the chemicals they use to communicate, their bodies created like robots, the resistant structures that permit them to live under all kinds of conditions, the poisons they use for attack and defense, the way they enter into shared lives with other living things, the exquisite tissues of some insects such as butterflies, metamorphosis, hunting and tactics like camouflage, a very broad, complicated picture emerges. These properties, the subject of whole libraries of books, yet they actually represent the very limited knowledge we have of insects. There are hundreds of thousands of insect species that have not yet been discovered or described, each has its own separate structures. Even the best-known and most studied insects possess amazing properties.

For instance, some of the most widely studied insects such as ants, bees and termites, possess exceedingly developed social systems, and releasing various chemical compounds to communicate. They organize themselves to establish division of labor in their colonies. They can construct nests like miniaturized skyscrapers and perfect honeycombs. Such species of ant engage in agriculture and sewing, and some solitary bees practice pottery. Communal bees produce honey and beeswax in their hives.

Some other classes of insects undergo metamorphosis. A caterpillar that eats leaves emerges from its chrysalis as a brightly colored butterfly. Silkworms produce threads used in clothing. Grasshoppers and fleas are prodigious jumpers. Fireflies produce their own cold light in the most economical manner. Some insects live symbiotic lives with plants or even with other insects. Insects display astonishing properties of speed, flight, leaping and running. When it comes to these special attributes, only a few of which have been listed here, evolutionists, who cannot even account for

the origins of insects in general terms, can go no further than repeated their time-worn explanations creations.

INSECTS' FASCINATING BEHAVIOR

Looked at from the point of view of evolutionary mechanisms, insect behavior assumes a whole new significance. These forms and properties of insect behavior refute the fundamental mechanisms of evolution. As touched on briefly earlier, the most advanced behaviors are seen in insects that live as one social organism. It is impossible for evolutionists to trace the specific development of these forms of behavior. For that reason, they examine each behavior individually, and then try to account for it within the framework of evolutionary logic . Efforts of this sort mean a new evolutionary tall tale for each different behavior.

Professor Ali Demirsoy, a well known Turkish evolutionist, makes the following comments:

In every phase of a living thing's life cycle, many forms of behavior unique to its own species regarding natural conditions, and the other living things in its habitat, can be seen . . . All this behavior can be based on specific physical and biological laws. However, it is impossible to account for it all in the present state of our biological knowledge.120

The objective of biology is to study animal behavior, discover the neurological, chemical and biological factors that cause it, and to reveal the results with concrete evidence. However, seeking to fit behavior into the evolutionary scenario without any evidence is not science, but an application of ideology.

Yet in the examples just cited, you can easily see that, like the behavior of other animals, insects' habits did not emerge as a result of a gradual process of random evolution, but was created as an ideal whole.

We encounter the most fascinating behavior in insect colonies. A large ant colony functions as a single organism, with complete order and discipline. Ants communicate by means of pheromones, of which scientists believe there are two varieties. The first has general effects, and the second applies to immediate effects such as alarms. Members of one colony are distinguished from strangers by their unique scent.

Every ant has a specific duty in the colony. Right from the moment it hatches from its cocoon, each ant performs its duty to the letter. One most interesting feature of this superior organization is how an ant is ready to sacrifice its life without hesitation in the event of danger to the colony. Even ants that have been injured or lost a leg or antenna do not turn and run away. Some ants become living bombs, inflating their acid sacs and blowing

themselves up in the midst of their enemies. In addition, some species of ants steal pupae from other colonies and use the ants that hatch as slaves. The engage in agriculture by growing fungi in particular chambers of their colonies, or by raising other aphids whose secretions fluids they drink. They enter into symbiotic relationships with plants or other animals, and even sew, stitching leaves together for their nests.

Bee and termite colonies also display unique forms of behavior. Honey bees construct perfect combs that display their architectural abilities. Besides using pheromones, they also communicate by means of the so-called bee dance. The self-sacrifice displayed by ants is also observed in bees. Whichever insect species we examine, you can encounter a different system of behavior. While ants take other insects prisoner, some insects live as parasites in the other insects' colonies by imitating their scent. Some insects even live by stealing food belonging to others.

All these features reveal one fact in total clarity: Insects, which have been living for hundreds of millions of years and come down unchanged to the present day, completely refute the theory of evolution. To understand this more clearly, simply compare insect behavior with the mechanisms proposed by the theory of evolution.

THE PRIMITIVE INSECT FALLACY

As with dragonfly, evolutionists tend to interpret very ancient fossils as "primitive." Their true aim is to insert insects, with their complex structures that fail to fit any evolutionary scenario, into an appropriate gap in the evolutionary framework. Cockroaches, interpreted from that evolutionist perspective, are just as primitive as are dragonflies.

In fact, close examination of the cockroach reveals the kind of complex structures seen in the dragonfly. It is true that the cockroach fossils dating back 350 million years have been found. But rather than proving that cockroaches allegedly evolved, these fossils actually demonstrate that cockroaches were created. There is absolutely no difference between fossils that lived in those times and present-day specimens: cockroaches have undergone no changes over the last 350 million years. Far from having a primitive structure, these insects have managed to survive conditions that most living things could not, down to the present day. In addition, cockroaches possess complex structures encountered in all insects: Highly developed antennae, the body-covering chitin, and the perfect wing structure are all present. They have eyes made up of some 2,000 lenses, a mouth and jaw structure ideal for consuming all kinds of food, rather resembling highly advanced scissors. Their feet enable them to walk on all

surfaces, and they are sensitive to all types of external stimuli such as pheromones, heat, vibrations and light intensity. With these exceedingly complex structures, cockroaches are not a primitive species, but the product of an supreme creation.121 Each of a cockroach's features has been created and brought together for a specific purpose; and each possesses irreducible complexity. They can serve no purpose unless they have emerged all at once, and fully formed. A too-short antenna or a foot able to cling to surfaces only some of the time will lead to the death of the insect. For that reason, an animal's organs must either be entirely developed as a whole or not at all. This rule applies to all other living things.

There is no aim or plan in the mechanisms of evolution. The various natural minerals and compounds that comprise the soil, water and air cannot combine to produce an insect. They cannot install data banks like DNA (of which no earlier examples exist) inside that insect, and cannot plan the conditions that will allow such complex systems to develop. It is beyond the power of inanimate, unconscious materials that constitute nature to give life to inanimate things.

However, the evidence of creation makes a Creator inevitable. The creation of insects equipped their perfect mechanisms points to a Creator with infinite knowledge and intellect.

The same creation applies to the first known insect, Rhyniella praecursor. This fossil, belonging to the springtail class, is around 396 million years old.122 However, these insects—of which more than 3,500 species are alive today—are by no means simple, as evolutionists fondly suppose. On the contrary, this insect's advanced structure enables it to live everywhere in the world, at the Poles, on water and even in the depths of the earth. Springtails take their name from a special fork-shaped structure at the tip of their tails that normally curves forward over the body. The stem of the fork is fixed by another structure. When the muscles rapidly propel this fork backward, it strikes the ground and lets the insect make long leaps and escape danger. It can even jump on water. Springtails are of great use in breaking down and plowing the earth. They possess very complex mouth and jaw structures for tearing, masticating and sucking. On their body surfaces are structures known as pseudocels that squirt out fluids at moments of danger. In addition to the advanced antenna in other insects, they also have what's known as a "postantenal" organ, peculiar to this insect alone. Scientists believe it serves to perceive moisture. Air cushions between its hairs are used for breathing in aquatic environments. Some species can emit light from their bodies, and also perform a special mating dance.123

The springtail, which evolutionists describe as primitive, has perfect structures and highly developed organs and mechanisms. Far from being primitive, Rhyniella praecursor is a perfect insect that cannot be distinguished from present-day specimens. Like the other examples cited above and distorted by evolutionists in order to portray them as primitive, this insect emerged not as the result of imaginary coincidences but as the product of creation. In other words, these creatures too were created by Allah, Lord of the heavens and Earth and all that lies between.

INSECTS ARGUE AGAINST EVOLUTION

A major problem for the theory of evolution is that insects emerged suddenly in the Devonian and Upper Carboniferous periods, in their present-day forms. The primitive ancestor of all insects is nowhere to be seen. In other words, insects did not emerge by evolving from a more primitive entity, but emerged around 350 million years ago in their present-day forms and possessing the same complex organs, and never underwent evolution. Fossils have been found belonging to 69% of the 1,087 families of insects known today. All these fossilized insects have the same features today—one of the problems that evolutionists are unable to resolve. 124

Their second major problem is the sheer variety among insects. According to the evolutionary scenario, there should be a limited number of insect species, all descended from the same forerunner. However, the actual number of insect species is estimated to exceed 30 million. Such an enormous number of species represents another question that evolutionists are unable to answer. There is not enough time for an imaginary process such as mutation to give rise to such variety.

In their book An Introduction to the Aquatic Insects of North America, Prof. R.W. Merrit and K.W. Cummins from California Berkeley University comment:

Interpretations of the fossil record must be made with great caution. For example fossils used in evaluating the terrestrial aquatic origin of insects were recently found to be not primitive insects at all, but merely fossilized segments of crustaceans! 125

Despite the large number of evolutionist scenarios about the origin of insects, scientists who closely research the subject arrive at these same conclusions. But proponents of the theory of evolution do not base their arguments on concrete evidence. The comments by H.V. Daly and J.T. Doyen of Berkeley and Oxford universities make this clear:

Unfortunately, evidence of the crucial steps leading to the origin of insects have not yet been found in the fossil record. Wings have contributed

more to the success of insects than any other anatomical structures, yet the historical origin of wings remains largely a mystery. The earliest insect fossils that have been discovered, from the Pennsylvanian Period, were already winged . . . Thus the body structures that developed into wings, the steps in the evolution, and the ecological circumstances that favored wings are debatable. 126

In a paper published in Nature magazine following long years of research, Ward Wheeler of the American Museum of Natural History also emphasizes the lack of evidence and states that the work failed to deliver Darwinists' desired results: "You can never be sure that you have the right answer, because each group's origins are lost in the mists of time." 127

Another major problem is that insects' exceedingly developed structures—their wings, and abilities of chemical communication, social organization and architecture—cannot be accounted for in terms of gradual evolution. Such fictitious mechanisms as useful mutations do not exist in nature.

As these examples show, insects have been specially created and equipped with superior abilities to perform their duties on Earth.

THE "COMMON EVOLUTION" SCENARIO

The proponents of evolution have always experienced grave difficulty in explaining the close relationship between insects and plants, the vital links between their shared lives and the great range of plant-insect interactions.

As you know, insects suddenly appear in the fossil record, with no primitive forerunner behind them, and this applies to plants as well. In particular, fossils from 43 different families of flowering plants, which make the greatest use of insects, appear suddenly in the fossil record. There is no question of any intermediate form or primitive ancestor. Yet according to the mechanisms of evolution, such a wide variety of plants should have left behind millions of intermediate-form fossils of relatively primitive ancestors. However, even though fossils of most living species have been found, no such primitive or transitional fossils have ever been found.

Lack of evidence is a familiar dilemma for evolutionists. Since they are prepared for such situations, proponents of the theory have made a habit of speculations and scenarios. In employing this unscientific method, the existence of proof is irrelevant. Advocates take the mechanisms of evolution as a starting point, and describe events as they imagine they should have been, rather than as they were.. Then, even though all the evidence argues against them they seek to make a reality of that fairy tale.

However, it is easy to ask just the right questions in order to understand the fraudulent nature of those defenseless scenarios.

The insect species involved in the claim of joint evolution are the Coleoptera, or beetles—a very numerous group, constituting approximately one-third of the insect classes. They derive their name from their two pairs of wings. The front wings are hard and contain chitin, which makes them like protective shields. They also help maintain balance during diving and flight. The rear wings provide flight. After completing its flight, a Coleoptera insect closes its wings, with the hind wings beneath the front ones. The way the protective front wings cover the rear ones is a separate marvel of engineering. Thanks to their ability to fold their wings in this manner, they can enter even the smallest holes, without harming their flight wings in any way. And these insects emerged at least 350 years ago, suddenly and in full possession of this perfect creation!

Insects like bees and butterflies, which pollinate flowers, also appear suddenly in the fossil record and have come down to the present day with no changes since they were first created. Bees that lived 150 million years ago also constructed the same perfect combs and produced honey.

The theory of evolution claims that the first flowering plants emerged and multiplied some 150 million years ago, and certain insect species entered into a relationship with these plants and also emerged and multiplied.

At first glance, this scenario may seem to account for the origins of plants and insects. But the facts are not as simple as the evolutionist scenario would have you believe. The essential questions remain unanswered:

Flowering plans and their pollinating insects appear suddenly in the fossil record. According to the theory of evolution, there should be not only a common ancestor, but countless intermediate forms between that ancestor and the species' final form. In such a rich fossil record, why has not a single one ever been encountered?

The proponents of evolution tend to generalize when referring to plant and insect variety, as if they all had the same features. Yet every insect and every plant possesses unique structures that distinguish it from every other. For instance, bees, butterflies, ants, leaf mites, locusts, cockroaches, fireflies, mole crickets, and fleas are all insects, yet display totally different features that represent more unanswered questions for evolution. The proponents of the theory set about preparing a general scenario for each of these, even though they were still unable to account for the origin of any living things, their complex structures or their social behavior. Yet

evolutionists really must be able to account for the origin of every separate species of insect, and of the every feature they possess. In doing so, they must act in the light of the scientific facts, rather than of outdated ideologies or conjecture.

Adherents of the theory of evolution often interpret variations within a given species as an entirely new species. That is one of the greatest distortions made in the name of evolution: the claim that mutations or environmental factors cause brand-new species to come into being. Another is that with the appearance of flowered plants, the suitable conditions they offered led to the emergence of new species of pollinators. This claim too is also full of internal discrepancies and distortions.

In order to better understand this problem, we first need to nail down the meaning of the concept species. The word tends to bring to mind unique types of plants and animals such as horses, camels, frogs, spiders, dolphins, palm trees and roses. The theory of evolution posits a common origin of these various organisms. Yet modern biologists describe the concept of species rather differently. They define a species as a group of plants or animals capable of mating and reproducing among themselves. For example, some 40,000 species of bees have been described.128 In other words, in essence these 40,000 different bees are all different sub-species within the species of Apis. Genetic information belonging to the species permits various changes to take place within this species, but a bee can never turn into a butterfly because there are insuperable genetic differences between the two species. In biology, this rule is generally referred to as genetic homeostasis, the principle that all attempts to improve a living species remain within defined boundaries, defined by the are insuperable barriers between species. Changes within a single species are known as variations or sub-species. The same rule applies to plants. Efforts over hundreds of years have never given rise to a new species of plant. All that has occurred is that by manipulating that plant's existing genetic information, a range of observable variations have been allowed to develop.

The Danish scientist W.L. Johansson summarizes the situation:

The variations upon which Darwin and Wallace placed their emphasis cannot be selectively pushed beyond a certain point, that such variability does not contain the secret of "indefinite departure." 129

Looked at from that perspective, evolutionists' distortion can be seen more clearly. Plants and insects have not given rise to any new species by interacting with one another. Furthermore, the diversity in the present day is not the result of this variation. There is no question of there being any

such evolutionary mechanism. The real question that evolutionists must answer is how a species such as the honeybee or the rose came into being in the first place. How did mammals, birds, and mollusks and their various classes, orders, and families first come into existence? It is by no means easy for Darwinists to answer these questions.

The known families of plants and insects were clearly created as works of art by a superior intelligence, suddenly, each in its own particular form. Each species has its own genetic pool. In the framework of this existing pre-programmed information, great many variations within the same species with very different attributes have often emerged. However, no cockroach has ever turned into a bee, nor an apple tree into a pumpkin vine. No mechanism in nature can design new types or form new organs and bodily systems for a new species. Each plant and animal form has been created with its own unique structures, and since Allah has created many of them with a rich potential for variation, each type has emerged with a rich but bounded variation.

Accounting for the close interrelationships that appear between given plant and insect species has also become a problem for the theory of evolution. Very often, two entirely different species can survive only so long as they live together intimately, meshing their life cycles. As you saw in previous chapters, plants and insects emerged suddenly with their separate different structures. However, between some of them there exist relationships based on very sensitive interdependence. For example, the yucca moth pollinates the yucca's flowers and its larvae live only on the developing yucca seeds. These bees have been equipped with special structures that they may perform the pollination process. They have long mouth structures to sip nectar and hairs to which pollens adhere. Ants protect certain flowers, such as the acacia's, from harm and receive nectar in return. The butterfly species Xanthopan morgani praedicta assists in the pollination of the Madagascar orchid by extending its 28-centimeter (11.02-inch) long proboscis into the 28 to 30 centimeter (11.02- to 11.81-inch) spur of the flower.

Some plants possess special traps for insects, and many insects eat plants; flowers and leaves. The relationship between plant and insect that evolutionists place no further back than 150 to 200 million years ago has been totally altered by one recent discovery. The latest fossils of structures known as galls, and one of the most basic relationships, show that this relationship between plant and insect has been continuing for more than 300 million years.130 During their developmental stages some insects are protected and fed in these structures, which form on the leaves and stems

of certain plants. Gall formation is a miraculous system all of its own. The plant produces a tissue that enfolds the insect's larva and in effect, imprisons the insect. In this way, plants are protected from further harm caused by insects, and the insects' young find a roomy shelter where they can feed in peace. The insect in this phase prevents another parasite that uses certain secretions (beta indolic acid) from occupying the site. Even if the plant dries up, the cells that form the gall remains alive for a short while longer.

These relationships established between plants and insects have emerged as the result of creation. No plant possesses any information about a pollinator like a bee, butterfly, or hawk moth. In addition, it cannot know when it releases a scent that insects can perceive. Furthermore, the plant, being unaware which of scents will attract flies, cannot know that bees will kill the parasites that are feeding on it. There is no possibility of these mutual systems of behavior developing with minute changes over time, via unconscious evolutionary processes. Parasites will not permit the plant to analyze the bee's sensory apparatus and construct a means to produce the relevant attractive chemicals, and the plant will soon die before going to seed.

This also applies to any systems affording mutual benefits. Unless a given system has been created as already complete and functioning, based on mutual behavioral and chemical balance, it will serve no purpose and have to evolutionary reason to survive. For example, in order for the eggs 28 centimeters (11.02 inches) down in the plant to be pollinated, the flower requires an insect with a proboscis 28 centimeters (11.02 inches) long, ever since that plant was first created. It has no time to wait for the long-tongued hawk moth, [Genus] predicta to evolve. The orchid would have died out unless both it and the hawk moth were created at the same moment. As with all the mechanisms and balances cited here, our omniscient Lord consciously and deliberately created these two species with a superior harmony and perfect features to enable each other.

There is no creature crawling on the Earth or flying creature, flying on its wings, who are not communities just like yourselves– We have not omitted anything from the Book—then they will be gathered to their Lord. (Surat al-An‘am, 38)

CONCLUSION

Despite all this evidence, Darwinists are unwilling to appreciate the species in front of them with all their superior characteristics. The existence of these plants and animals and their finely tuned attributes demonstrates that evolution never happened. Even more importantly, their existence clearly reveals the fact of creation, which Darwinists are reluctant to admit.

Of course, everything we need might have depended upon simpler causes, and even reach us from sources of which we were totally unaware. A plant might have possessed a way to make direct use of free nitrogen in the atmosphere. Or we might have been able to absorb vitamin K from the food we eat in the same way that we can vitamin C. The supply of oxygen to the atmosphere might have been provided from some fixed underground source or from the depths of space, and we would not then have needed microorganisms of just a few cells to provide photosnthesis. Had Allah so wished, He could have established just such an order on Earth. However, He has instead constructed an order of very delicate and fine balances, giving every minute microorganism a reason to exist. Humans should be able to see this evident miracle of creation, realize what has been bestowed on them and their helplessness in the face of everything they cannot do for themselves, and appreciate appropriately their eternal need of Allah.

In the Qur'an, He states:

That is Allah, your Lord. There is no god but Him, the Creator of everything. So worship Him. He is responsible for everything. (Surat al-An‘am, 102)

THE DECEPTION OF EVOLUTION

Darwinism, in other words the theory of evolution, was put forward with the aim of denying the fact of creation, but is in truth nothing but failed, unscientific nonsense. This theory, which claims that life emerged by chance from inanimate matter, was invalidated by the scientific evidence of miraculous order in the universe and in living things. In this way, science confirmed the fact that Allah created the universe and the living things in it. The propaganda carried out today in order to keep the theory of evolution alive is based solely on the distortion of the scientific facts, biased interpretation, and lies and falsehoods disguised as science.

Yet this propaganda cannot conceal the truth. The fact that the theory of evolution is the greatest deception in the history of science has been expressed more and more in the scientific world over the last 20-30 years. Research carried out after the 1980s in particular has revealed that the claims of Darwinism are totally unfounded, something that has been stated by a large number of scientists. In the United States in particular, many scientists from such different fields as biology, biochemistry and paleontology recognize the invalidity of Darwinism and employ the fact of creation to account for the origin of life.

We have examined the collapse of the theory of evolution and the proofs of creation in great scientific detail in many of our works, and are still continuing to do so. Given the enormous importance of this subject, it will be of great benefit to summarize it here.

The Scientific Collapse of Darwinism

Although this doctrine goes back as far as ancient Greece, the theory of evolution was advanced extensively in the nineteenth century. The most important development that made it the top topic of the world of science was Charles Darwin's The Origin of Species, published in 1859. In this book, he denied that Allah created different living species on Earth separately, for he claimed that all living beings had a common ancestor and had diversified over time through small changes. Darwin's theory was not based on any concrete scientific finding; as he also accepted, it was just an "assumption." Moreover, as Darwin confessed in the long chapter of his book titled "Difficulties on Theory," the theory failed in the face of many critical questions.

Darwin invested all of his hopes in new scientific discoveries, which he expected to solve these difficulties. However, contrary to his expectations,

scientific findings expanded the dimensions of these difficulties. The defeat of Darwinism in the face of science can be reviewed under three basic topics:

1) The theory cannot explain how life originated on Earth.

2) No scientific finding shows that the "evolutionary mechanisms" proposed by the theory have any evolutionary power at all.

3) The fossil record proves the exact opposite of what the theory suggests.

In this section, we will examine these three basic points in general outlines:

The First Insurmountable Step: The Origin of Life

The theory of evolution posits that all living species evolved from a single living cell that emerged on the primitive Earth 3.8 billion years ago. How a single cell could generate millions of complex living species and, if such an evolution really occurred, why traces of it cannot be observed in the fossil record are some of the questions that the theory cannot answer. However, first and foremost, we need to ask: How did this "first cell" originate?

Since the theory of evolution denies creation and any kind of supernatural intervention, it maintains that the "first cell" originated coincidentally within the laws of nature, without any design, plan or arrangement. According to the theory, inanimate matter must have produced a living cell as a result of coincidences. Such a claim, however, is inconsistent with the most unassailable rules of biology.

Life Comes From Life

In his book, Darwin never referred to the origin of life. The primitive understanding of science in his time rested on the assumption that living beings had a very simple structure. Since medieval times, spontaneous generation, which asserts that non-living materials came together to form living organisms, had been widely accepted. It was commonly believed that insects came into being from food leftovers, and mice from wheat. Interesting experiments were conducted to prove this theory. Some wheat was placed on a dirty piece of cloth, and it was believed that mice would originate from it after a while.

Similarly, maggots developing in rotting meat was assumed to be evidence of spontaneous generation. However, it was later understood that

worms did not appear on meat spontaneously, but were carried there by flies in the form of larvae, invisible to the naked eye.

Even when Darwin wrote The Origin of Species, the belief that bacteria could come into existence from non-living matter was widely accepted in the world of science.

However, five years after the publication of Darwin's book, Louis Pasteur announced his results after long studies and experiments, that disproved spontaneous generation, a cornerstone of Darwin's theory. In his triumphal lecture at the Sorbonne in 1864, Pasteur said: "Never will the doctrine of spontaneous generation recover from the mortal blow struck by this simple experiment."131

For a long time, advocates of the theory of evolution resisted these findings. However, as the development of science unraveled the complex structure of the cell of a living being, the idea that life could come into being coincidentally faced an even greater impasse.

Inconclusive Efforts of the Twentieth Century

The first evolutionist who took up the subject of the origin of life in the twentieth century was the renowned Russian biologist Alexander Oparin. With various theses he advanced in the 1930s, he tried to prove that a living cell could originate by coincidence. These studies, however, were doomed to failure, and Oparin had to make the following confession:

Unfortunately, however, the problem of the origin of the cell is perhaps the most obscure point in the whole study of the evolution of organisms.132

Evolutionist followers of Oparin tried to carry out experiments to solve this problem. The best known experiment was carried out by the American chemist Stanley Miller in 1953. Combining the gases he alleged to have existed in the primordial Earth's atmosphere in an experiment set-up, and adding energy to the mixture, Miller synthesized several organic molecules (amino acids) present in the structure of proteins.

Barely a few years had passed before it was revealed that this experiment, which was then presented as an important step in the name of evolution, was invalid, for the atmosphere used in the experiment was very different from the real Earth conditions.133

After a long silence, Miller confessed that the atmosphere medium he used was unrealistic.134

All the evolutionists' efforts throughout the twentieth century to explain the origin of life ended in failure. The geochemist Jeffrey Bada, from the San Diego Scripps Institute accepts this fact in an article published in Earth magazine in 1998:

Today as we leave the twentieth century, we still face the biggest unsolved problem that we had when we entered the twentieth century: How did life originate on Earth?135

The Complex Structure of Life

The primary reason why the theory of evolution ended up in such a great impasse regarding the origin of life is that even those living organisms deemed to be the simplest have incredibly complex structures. The cell of a living thing is more complex than all of our man-made technological products. Today, even in the most developed laboratories of the world, a living cell cannot be produced by bringing organic chemicals together.

The conditions required for the formation of a cell are too great in quantity to be explained away by coincidences. The probability of proteins, the building blocks of a cell, being synthesized coincidentally, is 1 in 10950 for an average protein made up of 500 amino acids. In mathematics, a probability smaller than 1 over 1050 is considered to be impossible in practical terms.

The DNA molecule, which is located in the nucleus of a cell and which stores genetic information, is an incredible databank. If the information coded in DNA were written down, it would make a giant library consisting of an estimated 900 volumes of encyclopedias consisting of 500 pages each.

A very interesting dilemma emerges at this point: DNA can replicate itself only with the help of some specialized proteins (enzymes). However, the synthesis of these enzymes can be realized only by the information coded in DNA. As they both depend on each other, they have to exist at the same time for replication. This brings the scenario that life originated by itself to a deadlock. Prof. Leslie Orgel, an evolutionist of repute from the University of San Diego, California, confesses this fact in the September 1994 issue of the Scientific American magazine:

It is extremely improbable that proteins and nucleic acids, both of which are structurally complex, arose spontaneously in the same place at the same time. Yet it also seems impossible to have one without the other. And so, at first glance, one might have to conclude that life could never, in fact, have originated by chemical means.136 No doubt, if it is impossible for life to have originated from natural causes, then it has to be accepted that life was "created" in a supernatural way. This fact explicitly invalidates the theory of evolution, whose main purpose is to deny creation.

Imaginary Mechanism of Evolution

The second important point that negates Darwin's theory is that both concepts put forward by the theory as "evolutionary mechanisms" were understood to have, in reality, no evolutionary power.

Darwin based his evolution allegation entirely on the mechanism of "natural selection." The importance he placed on this mechanism was evident in the name of his book: The Origin of Species, By Means of Natural Selection…

Natural selection holds that those living things that are stronger and more suited to the natural conditions of their habitats will survive in the struggle for life. For example, in a deer herd under the threat of attack by wild animals, those that can run faster will survive. Therefore, the deer herd will be comprised of faster and stronger individuals. However, unquestionably, this mechanism will not cause deer to evolve and transform themselves into another living species, for instance, horses.

Therefore, the mechanism of natural selection has no evolutionary power. Darwin was also aware of this fact and had to state this in his book The Origin of Species:

Natural selection can do nothing until favourable individual differences or variations occur.137

Lamarck’s Impact

So, how could these "favorable variations" occur? Darwin tried to answer this question from the standpoint of the primitive understanding of science at that time. According to the French biologist Chevalier de Lamarck (1744-1829), who lived before Darwin, living creatures passed on the traits they acquired during their lifetime to the next generation. He asserted that these traits, which accumulated from one generation to another, caused new species to be formed. For instance, he claimed that giraffes evolved from antelopes; as they struggled to eat the leaves of high trees, their necks were extended from generation to generation.

Darwin also gave similar examples. In his book The Origin of Species, for instance, he said that some bears going into water to find food transformed themselves into whales over time.138

However, the laws of inheritance discovered by Gregor Mendel (1822-84) and verified by the science of genetics, which flourished in the twentieth century, utterly demolished the legend that acquired traits were passed on to subsequent generations. Thus, natural selection fell out of favor as an evolutionary mechanism.

Neo-Darwinism and Mutations

In order to find a solution, Darwinists advanced the "Modern Synthetic Theory," or as it is more commonly known, Neo-Darwinism, at the end of the 1930s. Neo-Darwinism added mutations, which are distortions formed in the genes of living beings due to such external factors as radiation or replication errors, as the "cause of favorable variations" in addition to natural mutation.

Today, the model that stands for evolution in the world is Neo-Darwinism. The theory maintains that millions of living beings formed as a result of a process whereby numerous complex organs of these organisms (e.g., ears, eyes, lungs, and wings) underwent "mutations," that is, genetic disorders. Yet, there is an outright scientific fact that totally undermines this theory: Mutations do not cause living beings to develop; on the contrary, they are always harmful.

The reason for this is very simple: DNA has a very complex structure, and random effects can only harm it. The American geneticist B. G. Ranganathan explains this as follows:

First, genuine mutations are very rare in nature. Secondly, most mutations are harmful since they are random, rather than orderly changes in the structure of genes; any random change in a highly ordered system will be for the worse, not for the better. For example, if an earthquake were to shake a highly ordered structure such as a building, there would be a random change in the framework of the building which, in all probability, would not be an improvement.139

Not surprisingly, no mutation example, which is useful, that is, which is observed to develop the genetic code, has been observed so far. All mutations have proved to be harmful. It was understood that mutation, which is presented as an "evolutionary mechanism," is actually a genetic occurrence that harms living things, and leaves them disabled. (The most common effect of mutation on human beings is cancer.) Of course, a destructive mechanism cannot be an "evolutionary mechanism." Natural selection, on the other hand, "can do nothing by itself," as Darwin also accepted. This fact shows us that there is no "evolutionary mechanism" in nature. Since no evolutionary mechanism exists, no such any imaginary process called "evolution" could have taken place.

The Fossil Record:
No Sign of Intermediate Forms

The clearest evidence that the scenario suggested by the theory of evolution did not take place is the fossil record.

According to this theory, every living species has sprung from a predecessor. A previously existing species turned into something else over time and all species have come into being in this way. In other words, this transformation proceeds gradually over millions of years.

Had this been the case, numerous intermediary species should have existed and lived within this long transformation period.

For instance, some half-fish/half-reptiles should have lived in the past which had acquired some reptilian traits in addition to the fish traits they already had. Or there should have existed some reptile-birds, which acquired some bird traits in addition to the reptilian traits they already had. Since these would be in a transitional phase, they should be disabled, defective, crippled living beings. Evolutionists refer to these imaginary creatures, which they believe to have lived in the past, as "transitional forms."

If such animals ever really existed, there should be millions and even billions of them in number and variety. More importantly, the remains of these strange creatures should be present in the fossil record. In The Origin of Species, Darwin explained:

If my theory be true, numberless intermediate varieties, linking most closely all of the species of the same group together must assuredly have existed... Consequently, evidence of their former existence could be found only amongst fossil remains.140

Darwin’s Hopes Shattered

However, although evolutionists have been making strenuous efforts to find fossils since the middle of the nineteenth century all over the world, no transitional forms have yet been uncovered. All of the fossils, contrary to the evolutionists' expectations, show that life appeared on Earth all of a sudden and fully-formed.

One famous British paleontologist, Derek V. Ager, admits this fact, even though he is an evolutionist:

The point emerges that if we examine the fossil record in detail, whether at the level of orders or of species, we find – over and over again – not gradual evolution, but the sudden explosion of one group at the expense of another.141

This means that in the fossil record, all living species suddenly emerge as fully formed, without any intermediate forms in between. This is just the opposite of Darwin's assumptions. Also, this is very strong evidence that all living things are created. The only explanation of a living species emerging suddenly and complete in every detail without any evolutionary ancestor is

that it was created. This fact is admitted also by the widely known evolutionist biologist Douglas Futuyma:

Creation and evolution, between them, exhaust the possible explanations for the origin of living things. Organisms either appeared on the earth fully developed or they did not. If they did not, they must have developed from pre-existing species by some process of modification. If they did appear in a fully developed state, they must indeed have been created by some omnipotent intelligence.142

Fossils show that living beings emerged fully developed and in a perfect state on the Earth. That means that "the origin of species," contrary to Darwin's supposition, is not evolution, but creation.

The Tale of Human Evolution

The subject most often brought up by advocates of the theory of evolution is the subject of the origin of man. The Darwinist claim holds that modern man evolved from ape-like creatures. During this alleged evolutionary process, which is supposed to have started 4-5 million years ago, some "transitional forms" between modern man and his ancestors are supposed to have existed. According to this completely imaginary scenario, four basic "categories" are listed:

1. Australopithecus
2. Homo habilis
3. Homo erectus
4. Homo sapiens

Evolutionists call man's so-called first ape-like ancestors Australopithecus, which means "South African ape." These living beings are actually nothing but an old ape species that has become extinct. Extensive research done on various Australopithecus specimens by two world famous anatomists from England and the USA, namely, Lord Solly Zuckerman and Prof. Charles Oxnard, shows that these apes belonged to an ordinary ape species that became extinct and bore no resemblance to humans.143

Evolutionists classify the next stage of human evolution as "homo," that is "man." According to their claim, the living beings in the Homo series are more developed than Australopithecus. Evolutionists devise a fanciful evolution scheme by arranging different fossils of these creatures in a particular order. This scheme is imaginary because it has never been proved that there is an evolutionary relation between these different classes. Ernst Mayr, one of the twentieth century's most important evolutionists, contends in his book One Long Argument that "particularly

historical [puzzles] such as the origin of life or of Homo sapiens, are extremely difficult and may even resist a final, satisfying explanation."144

By outlining the link chain as Australopithecus > Homo habilis > Homo erectus > Homo sapiens, evolutionists imply that each of these species is one another's ancestor. However, recent findings of paleoanthropologists have revealed that Australopithecus, Homo habilis, and Homo erectus lived at different parts of the world at the same time.145

Moreover, a certain segment of humans classified as Homo erectus have lived up until very modern times. Homo sapiens neandarthalensis and Homo sapiens sapiens (modern man) co-existed in the same region.146

This situation apparently indicates the invalidity of the claim that they are ancestors of one another. Stephen Jay Gould explained this deadlock of the theory of evolution, although he was himself one of the leading advocates of evolution in the twentieth century:

What has become of our ladder if there are three coexisting lineages of hominids (A. africanus, the robust australopithecines, and H. habilis), none clearly derived from another? Moreover, none of the three display any evolutionary trends during their tenure on earth.147

Put briefly, the scenario of human evolution, which is "upheld" with the help of various drawings of some "half ape, half human" creatures appearing in the media and course books, that is, frankly, by means of propaganda, is nothing but a tale with no scientific foundation.

Lord Solly Zuckerman, one of the most famous and respected scientists in the U.K., who carried out research on this subject for years and studied Australopithecus fossils for 15 years, finally concluded, despite being an evolutionist himself, that there is, in fact, no such family tree branching out from ape-like creatures to man.

Zuckerman also made an interesting "spectrum of science" ranging from those he considered scientific to those he considered unscientific. According to Zuckerman's spectrum, the most "scientific" – that is, depending on concrete data – fields of science are chemistry and physics. After them come the biological sciences and then the social sciences. At the far end of the spectrum, which is the part considered to be most "unscientific," are "extra-sensory perception" – concepts such as telepathy and sixth sense – and finally "human evolution." Zuckerman explains his reasoning:

We then move right off the register of objective truth into those fields of presumed biological science, like extrasensory perception or the interpretation of man's fossil history, where to the faithful [evolutionist] anything is possible – and where the ardent believer [in evolution] is

sometimes able to believe several contradictory things at the same time.148

The tale of human evolution boils down to nothing but the prejudiced interpretations of some fossils unearthed by certain people, who blindly adhere to their theory.

Darwinian Formula!

Besides all the technical evidence we have dealt with so far, let us now for once, examine what kind of a superstition the evolutionists have with an example so simple as to be understood even by children:

The theory of evolution asserts that life is formed by chance. According to this claim, lifeless and unconscious atoms came together to form the cell and then they somehow formed other living things, including man. Let us think about that. When we bring together the elements that are the building-blocks of life such as carbon, phosphorus, nitrogen and potassium, only a heap is formed. No matter what treatments it undergoes, this atomic heap cannot form even a single living being. If you like, let us formulate an "experiment" on this subject and let us examine on the behalf of evolutionists what they really claim without pronouncing loudly under the name "Darwinian formula":

Let evolutionists put plenty of materials present in the composition of living things such as phosphorus, nitrogen, carbon, oxygen, iron, and magnesium into big barrels. Moreover, let them add in these barrels any material that does not exist under normal conditions, but they think as necessary. Let them add in this mixture as many amino acids and as many proteins – a single one of which has a formation probability of 10-950 – as they like. Let them expose these mixtures to as much heat and moisture as they like. Let them stir these with whatever technologically developed device they like. Let them put the foremost scientists beside these barrels. Let these experts wait in turn beside these barrels for billions, and even trillions of years. Let them be free to use all kinds of conditions they believe to be necessary for a human's formation. No matter what they do, they cannot produce from these barrels a human, say a professor that examines his cell structure under the electron microscope. They cannot produce giraffes, lions, bees, canaries, horses, dolphins, roses, orchids, lilies, carnations, bananas, oranges, apples, dates, tomatoes, melons, watermelons, figs, olives, grapes, peaches, peafowls, pheasants, multicoloured butterflies, or millions of other living beings such as these. Indeed, they could not obtain even a single cell of any one of them.

Briefly, unconscious atoms cannot form the cell by coming together. They cannot take a new decision and divide this cell into two, then take other decisions and create the professors who first invent the electron microscope and then examine their own cell structure under that microscope. Matter is an unconscious, lifeless heap, and it comes to life with Allah's superior creation.

The theory of evolution, which claims the opposite, is a total fallacy completely contrary to reason. Thinking even a little bit on the claims of evolutionists discloses this reality, just as in the above example.

Technology in the Eye and the Ear

Another subject that remains unanswered by evolutionary theory is the excellent quality of perception in the eye and the ear.

Before passing on to the subject of the eye, let us briefly answer the question of how we see. Light rays coming from an object fall oppositely on the eye's retina. Here, these light rays are transmitted into electric signals by cells and reach a tiny spot at the back of the brain, the "center of vision." These electric signals are perceived in this center as an image after a series of processes. With this technical background, let us do some thinking.

The brain is insulated from light. That means that its inside is completely dark, and that no light reaches the place where it is located. Thus, the "center of vision" is never touched by light and may even be the darkest place you have ever known. However, you observe a luminous, bright world in this pitch darkness.

The image formed in the eye is so sharp and distinct that even the technology of the twentieth century has not been able to attain it. For instance, look at the book you are reading, your hands with which you are holding it, and then lift your head and look around you. Have you ever seen such a sharp and distinct image as this one at any other place? Even the most developed television screen produced by the greatest television producer in the world cannot provide such a sharp image for you. This is a three-dimensional, colored, and extremely sharp image. For more than 100 years, thousands of engineers have been trying to achieve this sharpness. Factories, huge premises were established, much research has been done, plans and designs have been made for this purpose. Again, look at a TV screen and the book you hold in your hands. You will see that there is a big difference in sharpness and distinction. Moreover, the TV screen shows you a two-dimensional image, whereas with your eyes, you watch a three-dimensional perspective with depth.

For many years, tens of thousands of engineers have tried to make a three-dimensional TV and achieve the vision quality of the eye. Yes, they have made a three-dimensional television system, but it is not possible to watch it without putting on special 3-D glasses; moreover, it is only an artificial three-dimension. The background is more blurred, the foreground appears like a paper setting. Never has it been possible to produce a sharp and distinct vision like that of the eye. In both the camera and the television, there is a loss of image quality.

Evolutionists claim that the mechanism producing this sharp and distinct image has been formed by chance. Now, if somebody told you that the television in your room was formed as a result of chance, that all of its atoms just happened to come together and make up this device that produces an image, what would you think? How can atoms do what thousands of people cannot?

If a device producing a more primitive image than the eye could not have been formed by chance, then it is very evident that the eye and the image seen by the eye could not have been formed by chance. The same situation applies to the ear. The outer ear picks up the available sounds by the auricle and directs them to the middle ear, the middle ear transmits the sound vibrations by intensifying them, and the inner ear sends these vibrations to the brain by translating them into electric signals. Just as with the eye, the act of hearing finalizes in the center of hearing in the brain.

The situation in the eye is also true for the ear. That is, the brain is insulated from sound just as it is from light. It does not let any sound in. Therefore, no matter how noisy is the outside, the inside of the brain is completely silent. Nevertheless, the sharpest sounds are perceived in the brain. In your completely silent brain, you listen to symphonies, and hear all of the noises in a crowded place. However, were the sound level in your brain measured by a precise device at that moment, complete silence would be found to be prevailing there.

As is the case with imagery, decades of effort have been spent in trying to generate and reproduce sound that is faithful to the original. The results of these efforts are sound recorders, high-fidelity systems, and systems for sensing sound. Despite all of this technology and the thousands of engineers and experts who have been working on this endeavor, no sound has yet been obtained that has the same sharpness and clarity as the sound perceived by the ear. Think of the highest-quality hi-fi systems produced by the largest company in the music industry. Even in these devices, when sound is recorded some of it is lost; or when you turn on a hi-fi you always hear a hissing sound before the music starts. However, the

sounds that are the products of the human body's technology are extremely sharp and clear. A human ear never perceives a sound accompanied by a hissing sound or with atmospherics as does a hi-fi; rather, it perceives sound exactly as it is, sharp and clear. This is the way it has been since the creation of man.

So far, no man-made visual or recording apparatus has been as sensitive and successful in perceiving sensory data as are the eye and the ear. However, as far as seeing and hearing are concerned, a far greater truth lies beyond all this.

To Whom Does the Consciousness that Sees and Hears within the Brain Belong?

Who watches an alluring world in the brain, listens to symphonies and the twittering of birds, and smells the rose?

The stimulations coming from a person's eyes, ears, and nose travel to the brain as electro-chemical nerve impulses. In biology, physiology, and biochemistry books, you can find many details about how this image forms in the brain. However, you will never come across the most important fact: Who perceives these electro-chemical nerve impulses as images, sounds, odors, and sensory events in the brain? There is a consciousness in the brain that perceives all this without feeling any need for an eye, an ear, and a nose. To whom does this consciousness belong? Of course it does not belong to the nerves, the fat layer, and neurons comprising the brain. This is why Darwinist-materialists, who believe that everything is comprised of matter, cannot answer these questions.

For this consciousness is the spirit created by Allah, which needs neither the eye to watch the images nor the ear to hear the sounds. Furthermore, it does not need the brain to think.

Everyone who reads this explicit and scientific fact should ponder on Almighty Allah, and fear and seek refuge in Him, for He squeezes the entire universe in a pitch-dark place of a few cubic centimeters in a three-dimensional, colored, shadowy, and luminous form.

A Materialist Faith

The information we have presented so far shows us that the theory of evolution is incompatible with scientific findings. The theory's claim regarding the origin of life is inconsistent with science, the evolutionary mechanisms it proposes have no evolutionary power, and fossils demonstrate that the required intermediate forms have never existed. So, it certainly follows that the theory of evolution should be pushed aside as an

unscientific idea. This is how many ideas, such as the Earth-centered universe model, have been taken out of the agenda of science throughout history.

However, the theory of evolution is kept on the agenda of science. Some people even try to represent criticisms directed against it as an "attack on science." Why?

The reason is that this theory is an indispensable dogmatic belief for some circles. These circles are blindly devoted to materialist philosophy and adopt Darwinism because it is the only materialist explanation that can be put forward to explain the workings of nature.

Interestingly enough, they also confess this fact from time to time. A well-known geneticist and an outspoken evolutionist, Richard C. Lewontin from Harvard University, confesses that he is "first and foremost a materialist and then a scientist":

It is not that the methods and institutions of science somehow compel us accept a material explanation of the phenomenal world, but, on the contrary, that we are forced by our a priori adherence to material causes to create an apparatus of investigation and a set of concepts that produce material explanations, no matter how counter-intuitive, no matter how mystifying to the uninitiated. Moreover, that materialism is absolute, so we cannot allow a Divine [intervention]...149

These are explicit statements that Darwinism is a dogma kept alive just for the sake of adherence to materialism. This dogma maintains that there is no being save matter. Therefore, it argues that inanimate, unconscious matter created life. It insists that millions of different living species (e.g., birds, fish, giraffes, tigers, insects, trees, flowers, whales, and human beings) originated as a result of the interactions between matter such as pouring rain, lightning flashes, and so on, out of inanimate matter. This is a precept contrary both to reason and science. Yet Darwinists continue to defend it just so as "not to allow a Divine intervention."

Anyone who does not look at the origin of living beings with a materialist prejudice will see this evident truth: All living beings are works of a Creator, Who is All-Powerful, All-Wise, and All-Knowing. This Creator is Allah, Who created the whole universe from non-existence, designed it in the most perfect form, and fashioned all living beings.

The Theory of Evolution: The Most Potent Spell in the World

Anyone free of prejudice and the influence of any particular ideology, who uses only his or her reason and logic, will clearly understand that belief

in the theory of evolution, which brings to mind the superstitions of societies with no knowledge of science or civilization, is quite impossible.

As explained above, those who believe in the theory of evolution think that a few atoms and molecules thrown into a huge vat could produce thinking, reasoning professors and university students; such scientists as Einstein and Galileo; such artists as Humphrey Bogart, Frank Sinatra and Luciano Pavarotti; as well as antelopes, lemon trees, and carnations. Moreover, as the scientists and professors who believe in this nonsense are educated people, it is quite justifiable to speak of this theory as "the most potent spell in history." Never before has any other belief or idea so taken away peoples' powers of reason, refused to allow them to think intelligently and logically, and hidden the truth from them as if they had been blindfolded. This is an even worse and unbelievable blindness than the totem worship in some parts of Africa, the people of Saba worshipping the Sun, the tribe of Abraham (pbuh) worshipping idols they had made with their own hands, or the people of Moses (pbuh) worshipping the Golden Calf.

In fact, Allah has pointed to this lack of reason in the Qur'an. In many verses, He reveals that some peoples' minds will be closed and that they will be powerless to see the truth. Some of these verses are as follows:

As for those who do not believe, it makes no difference to them whether you warn them or do not warn them, they will not believe. Allah has sealed up their hearts and hearing and over their eyes is a blindfold. They will have a terrible punishment. (Surat al-Baqara: 6-7)

… They have hearts with which they do not understand. They have eyes with which they do not see. They have ears with which they do not hear. Such people are like cattle. No, they are even further astray! They are the unaware. (Surat al-A‘raf: 179)

Even if We opened up to them a door into heaven, and they spent the day ascending through it, they would only say: "Our eyesight is befuddled! Or rather we have been put under a spell!" (Surat al-Hijr: 14-15)

Words cannot express just how astonishing it is that this spell should hold such a wide community in thrall, keep people from the truth, and not be broken for 150 years. It is understandable that one or a few people

might believe in impossible scenarios and claims full of stupidity and illogicality. However, "magic" is the only possible explanation for people from all over the world believing that unconscious and lifeless atoms suddenly decided to come together and form a universe that functions with a flawless system of organization, discipline, reason, and consciousness; a planet named Earth with all of its features so perfectly suited to life; and living things full of countless complex systems.

In fact, the Qur'an relates the incident of Moses (pbuh) and Pharaoh to show that some people who support atheistic philosophies actually influence others by magic. When Pharaoh was told about the true religion, he told Prophet Moses (pbuh) to meet with his own magicians. When Moses (pbuh) did so, he told them to demonstrate their abilities first. The verses continue:

He said: "You throw." And when they threw, they cast a spell on the people's eyes and caused them to feel great fear of them. They produced an extremely powerful magic. (Surat al-A‘raf: 116)

As we have seen, Pharaoh's magicians were able to deceive everyone, apart from Moses (pbuh) and those who believed in him. However, his evidence broke the spell, or "swallowed up what they had forged," as the verse puts it:

We revealed to Moses: "Throw down your staff." And it immediately swallowed up what they had forged. So the Truth took place and what they did was shown to be false. (Surat al-A‘raf: 117-118)

As we can see, when people realized that a spell had been cast upon them and that what they saw was just an illusion, Pharaoh's magicians lost all credibility. In the present day too, unless those who, under the influence of a similar spell, believe in these ridiculous claims under their scientific disguise and spend their lives defending them, abandon their superstitious beliefs, they also will be humiliated when the full truth emerges and the spell is broken. In fact, world-renowned British writer and philosopher Malcolm Muggeridge, who was an atheist defending evolution for some 60 years, but who subsequently realized the truth, reveals the position in which the theory of evolution would find itself in the near future in these terms:

I myself am convinced that the theory of evolution, especially the extent to which it's been applied, will be one of the great jokes in the

history books in the future. Posterity will marvel that so very flimsy and dubious an hypothesis could be accepted with the incredible credulity that it has.150

That future is not far off: On the contrary, people will soon see that "chance" is not a deity, and will look back on the theory of evolution as the worst deceit and the most terrible spell in the world. That spell is already rapidly beginning to be lifted from the shoulders of people all over the world. Many people who see its true face are wondering with amazement how they could ever have been taken in by it.

They said, "Glory be to You!
We have no knowledge except what
You have taught us. You are
the All-Knowing, the All-Wise."
(Surat al-Baqara, 32)

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Are you ever really alone?

Even when you think you are sitting at home alone, you are still in the company of a great number of living things. Bacteria live on you and in your body, and constantly protect you and also, occasionally, cause you to become ill. Mites that are spread everywhere, from the chair you sit in to your carpet, to the air you breathe. Moulds and fungi begin reproducing on foods left out in the open in your kitchen for even a few hours—all of these constitute a different world with its own unique lifestyles, nutritional systems and structural features.

Maybe you have always thought that humans, animals and plants you see around you represent the sole community of living things. Yet the microorganisms, members of a secret world that reach to every corner of the Earth, are far more numerous that those other, more familiar living things. These minute creatures outnumber the animals in the world by twenty to one. 1 In the same way that they are present all over the world, they are also essential
to human life.

About the Author

The author, who writes under the pen-name Harun Yahya, was born in Ankara in 1956. He studied arts at Istanbul's Mimar Sinan University, and philosophy at Istanbul University. Since the 1980s, the author has published many books on political, faith-related and scientific issues. Greatly appreciated all around the world, these works have been instrumental in helping many to return their faith in Allah, and, in many others, to gain a deeper insight into their faith. Harun Yahya's books appeal to all kinds of readers, regardless of their age, race, or nationality, for they focus on one objective: to broaden the reader's perspective by encouraging him or her to think about a number of critical issues, such as the existence of Allah and His unity, and to live by the values He prescribed for them.