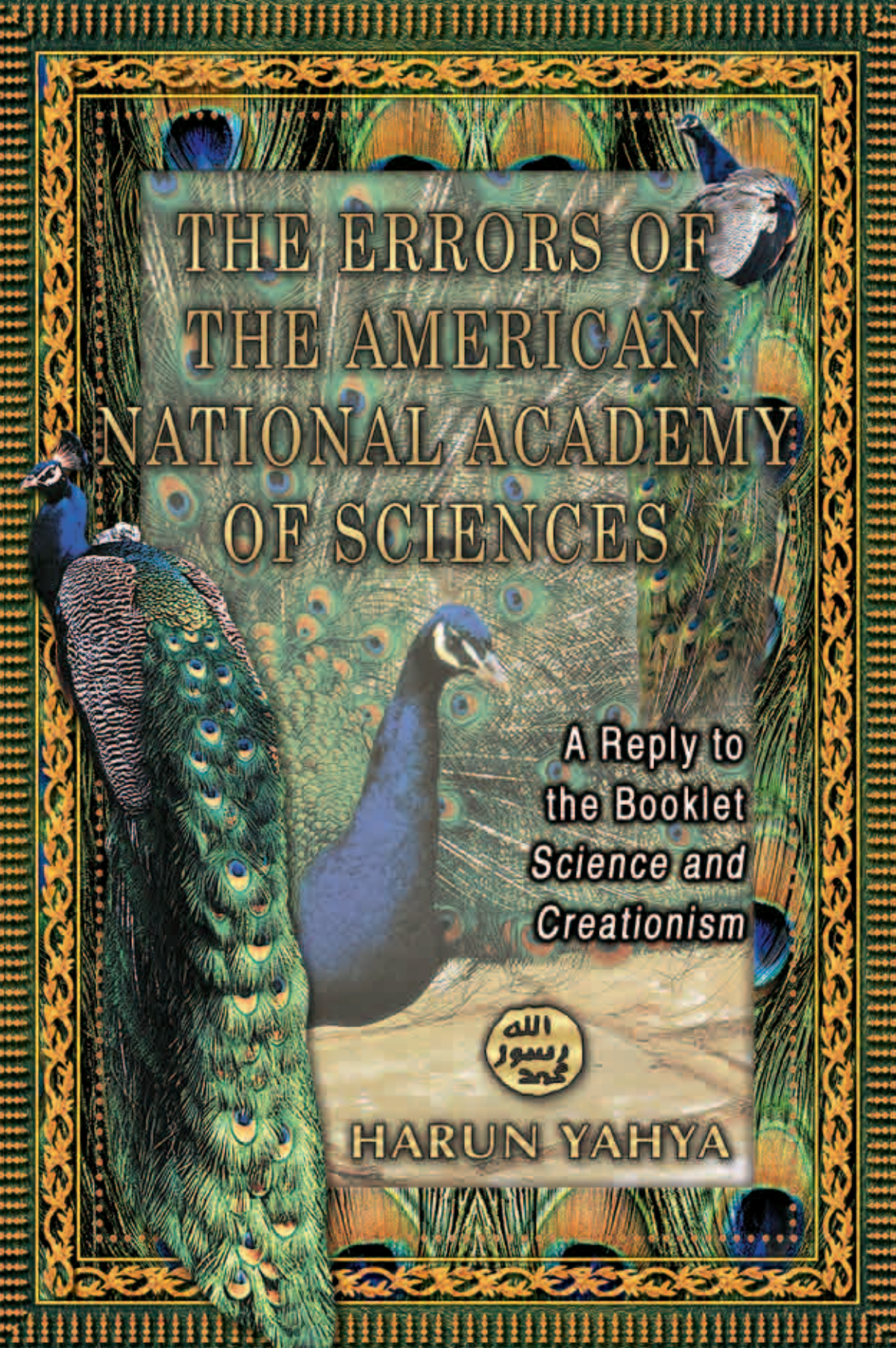
THE ERRORS OF THE AMERICAN NATIONAL ACADEMY OF SCIENCES
A Reply to the Booklet Science and Creationism
HARUN YAHYA

In 1999, the National Academy of Sciences, USA, published a booklet called *Science and Creationism: The National Academy of Science's View*. The aim of this booklet was to respond to the creation/evolution debate by bringing together "the most important proofs" of evolution.

The advertising campaign set in motion about this booklet was such that anyone seeing it might well imagine that it was full of evidence for the theory of evolution and had put a definitive end to all discussion of the validity of the theory. However, those who expected to find such evidence in it were sadly disappointed. The booklet makes not a single mention of the Cambrian Period, the real subject of debate as regards the theory of evolution and which can never be accounted for in terms of the theory. Nor does it discuss such matters as the origin of the cell or human consciousness. Despite having been disproved time and time again by scientific findings, evolutionists' classic claims were simply repeated in a superficial manner, with no evidence offered to support them.

With this new work, we wish to demonstrate how it is that the members of the National Academy of Sciences, USA, one of the world's most eminent evolutionist institutions, came to be unable to see the most obvious truth and to distort the evidence and knowingly support a lie, because of their fanatical devotion to Darwinism and materialism.

Those who read this book with an objective eye will once again see the truth in question—in other words the fact that the theory of evolution is being supported with a blind and totally dogmatic determination.

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. His main focus has been the refutation of Darwinism and materialism, two modern myths presented under a scientific guise. Some of the books of the author have been translated into more than 40 languages and published in the countries concerned. Harun Yahya's books appeal to all people, Muslims and non-Muslims alike, regardless of their age, race, and nationality, as they center around one goal: to open the readers' mind by encouraging them to think about some critical issues such as the existence of God and His unity, and to display the decrepit foundations and perverted works of godless systems.

In the name of God, Most Gracious,
Most Merciful

All translations from the Qur'an are from *The Noble Qur'an: a New Rendering of its Meaning in English* by Hajj Abdalhaqq and Aisha Bewley, published by Bookwork, Norwich, UK. 1420 CE/1999 AH.

Harun Yahya
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THE ERRORS OF THE NAS

A Reply to the National Academy of Sciences Booklet,
Science and Creationism

HARUN YAHYA

September, 2003

ABOUT THE AUTHOR

Now writing under the pen-name of HARUN YAHYA, he 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.

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 people's lack of faith. The Prophet's seal on the his books' covers is symbolic and is linked to the their contents. It represents the Qur'an (the final scripture) and the Prophet Muhammad (peace be upon him), last of the prophets. Under the guidance of the Qur'an and the Sunnah (teachings of the Prophet), the author makes it his purpose to disprove each fundamental tenet of godless 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, 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 God's Existence and Unity and the hereafter; and to expose godless 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, and Spain to Brazil. Some of his books are available in English, French, German, Spanish, Italian, Portuguese, Urdu, Arabic, Albanian, Russian, Serbo-Croat (Bosnian), Polish, Malay, Uygur Turkish, and Indonesian.

Greatly appreciated all around the world, these works have been instrumental in many people recovering faith in God 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 God'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 God, 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 God, these books will be a means through which people in the twentyfirst century will attain the peace, justice, and happiness promised in the Qur'an.

TO THE READER

All the author's books explain faith-related issues in light of Qur'anic verses, and invite readers to learn God's words and to live by them. All the subjects concerning God'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 ensure 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 a 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 God. 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.

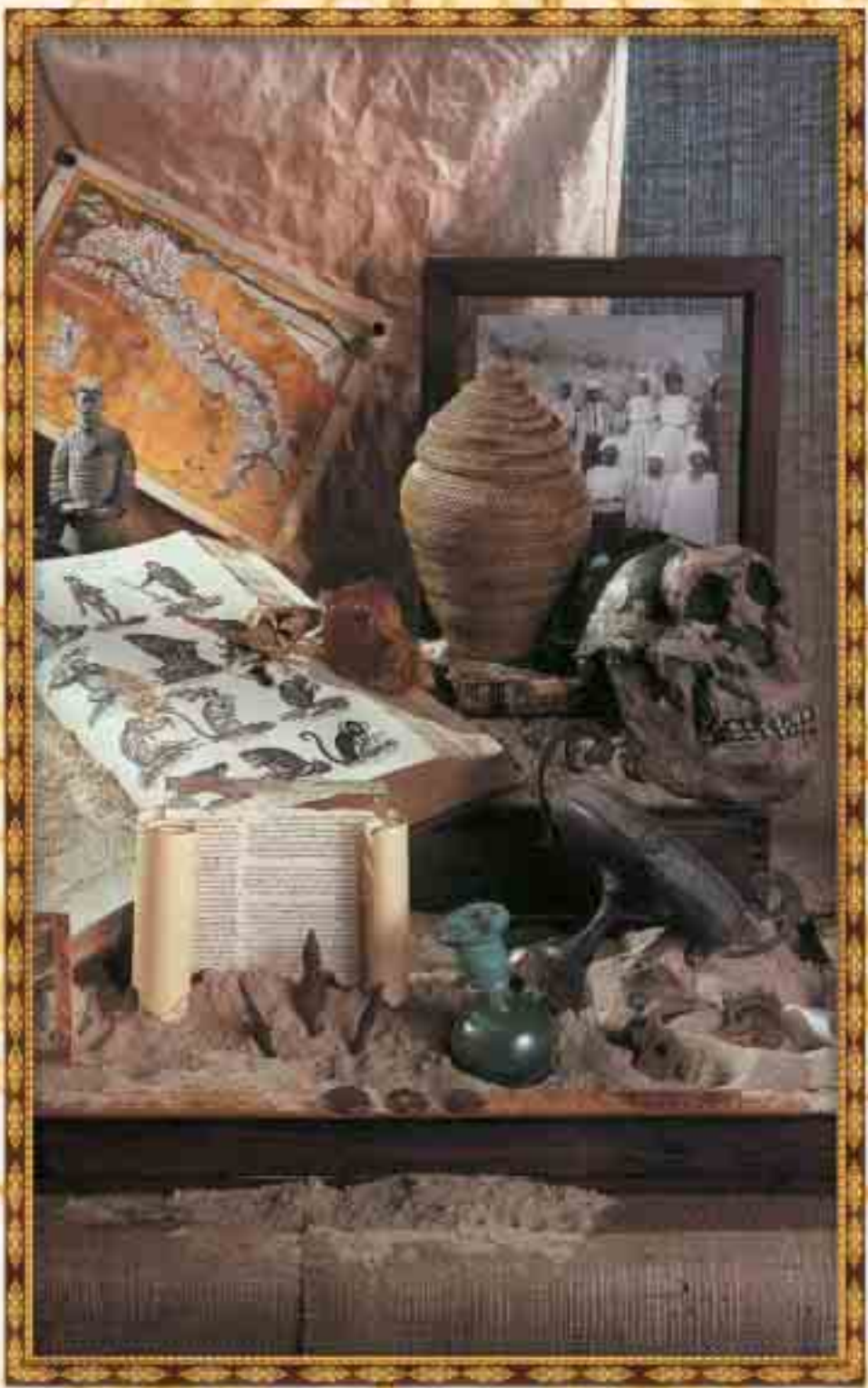
We hope the reader will look through the reviews of his other books at the back of this book. His rich source material on faith-related issues is very useful, and a pleasure to read.

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.

THE ERRORS OF THE NAS

A Reply to the National Academy of Sciences Booklet,
Science and Creationism

HARUN YAHYA



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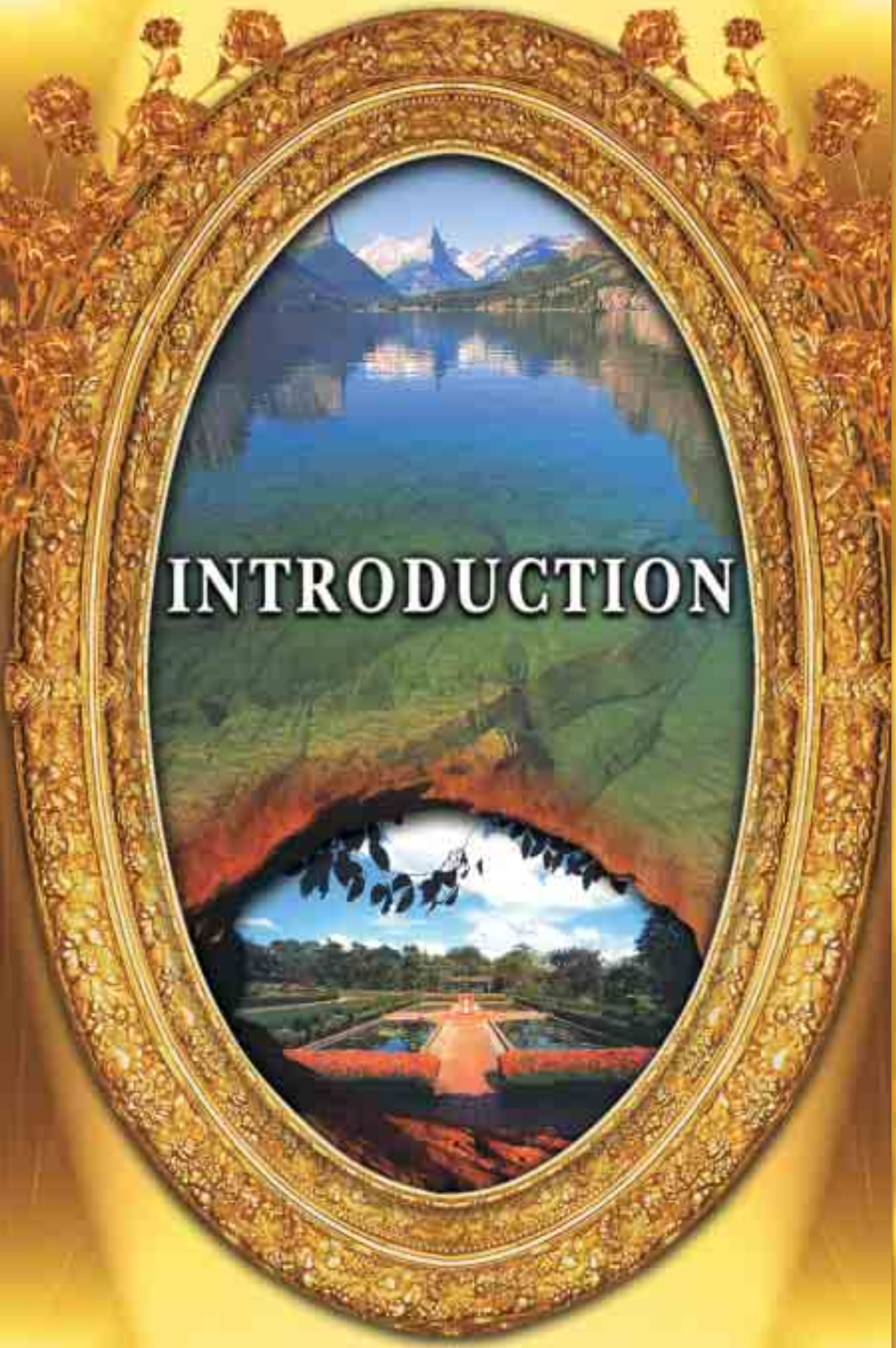

INTRODUCTION

In 1999, the National Academy of Sciences, USA, published a booklet called *Science and Creationism: A View from the National Academy of Sciences*. The aim of this booklet was to respond to the creation/evolution debate by bringing together "the most important proofs" of evolution. The booklet was regarded as a most important source by evolutionists from all over the world. Evolutionist circles published the text free of charge on their Internet sites.

The advertising campaign set in motion about this booklet was such that anyone seeing it might well imagine that it was full of evidence for the theory of evolution and had put a definitive end to all discussion of the validity of the theory. However, those who expected to find such evidence in it were sadly disappointed. The booklet makes not a single mention of the Cambrian Period, the real subject of debate as regards the theory of evolution and which can never be accounted for in terms of the theory. Nor does it discuss such matters as the origin of the cell or human consciousness. Despite having been disproved time and time again by scientific findings, evolutionists' classic claims were simply repeated in a superficial manner, with no evidence offered to support them.

We have already responded to the Academy's booklet several times in previous works and have shown, with scientific evidence, that these claims are of no scientific value. Yet the need has nevertheless arisen for the preparation of a new study intended as a response to that booklet. With this new work, we wish to demonstrate how it is that the members of the

National Academy of Sciences, USA, one of the world's most eminent evolutionist institutions, came to be unable to see the most obvious truth and to distort the evidence and knowingly support a lie, because of their fanatical devotion to Darwinism and materialism.

Those who read this book with an objective eye will once again see the truth in question—in other words the fact that the theory of evolution is being supported with a blind and totally dogmatic determination.

Yet how is it that these scientists continue to support a dogma left over from the nineteenth century with such dogged determination, in the face of all the scientific facts?

The reason is the materialist philosophy these scientists believe in. Materialism is a creed which maintains that only matter exists, and is equivalent to atheism. Atheists—in other words, those who would deny the existence of God and who reject religion, divine books and the infinite life in the hereafter—need a theory such as Darwinism to provide an atheistic account of the origin of life. They realize that if Darwinism is disproved, then they will have to accept God, and therefore also the existence of the hereafter and the fact that the prophets spoke the truth, for which reason they continue to put Darwinism forward with a blind fanaticism.

The mathematician and professor of astronomy Chandra Wickramasinghe is one of those scientists who have recognized this Darwinist fanaticism. He admits that:

> From my earliest training as a scientist, I was very strongly brainwashed to believe that science cannot be consistent with any kind of deliberate creation. That notion has had to be painfully shed. At the moment, I can't find any rational argument to knock down the view which argues for conversion to God. We used to have an open mind; now we realize that the only logical answer to life is creation—and not accidental random shuffling.[1]

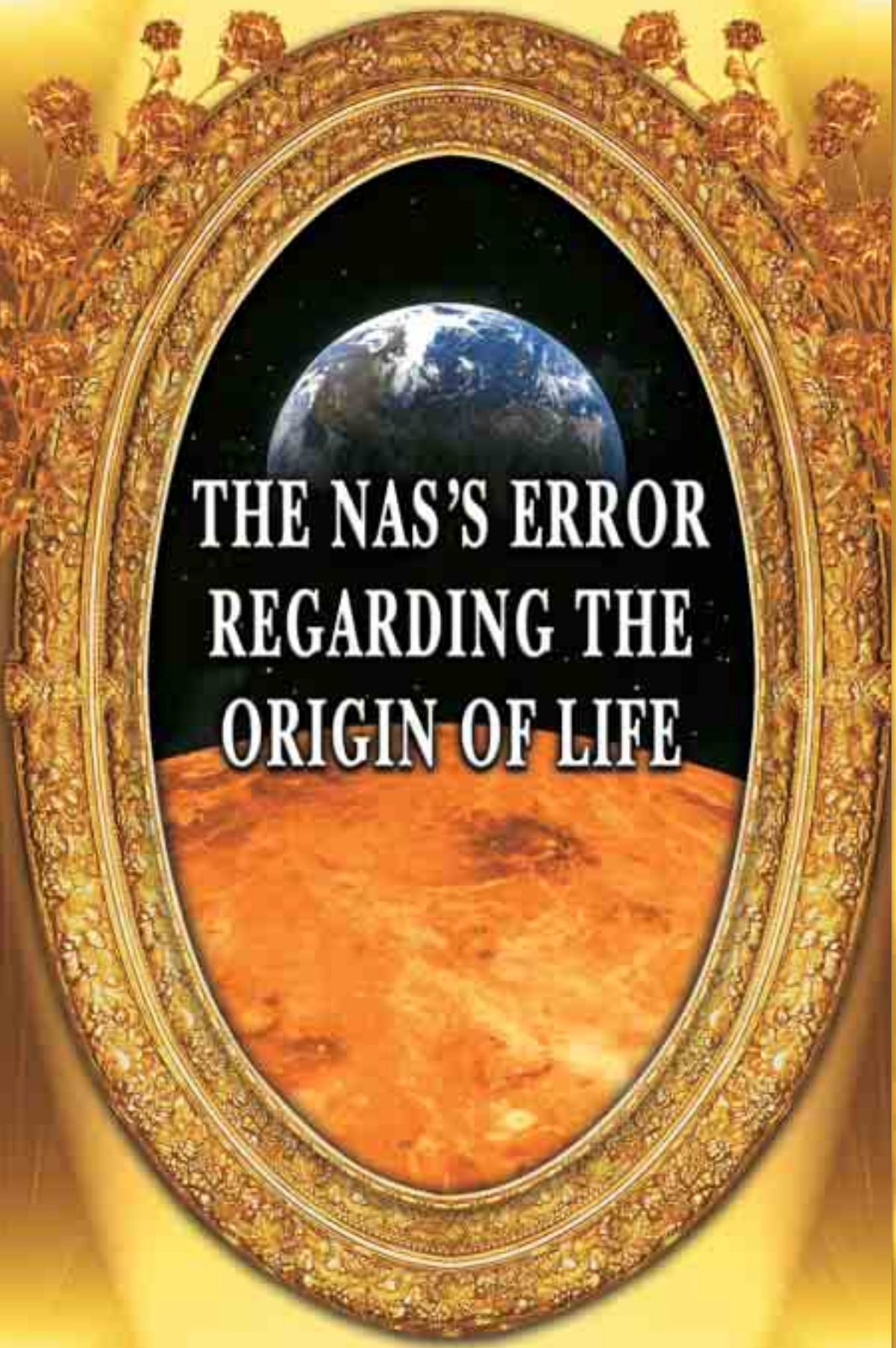
The evolutionist anthropologist Dr. Michael Walker has also ac-

cepted this fact. In his words, "One is forced to conclude that many scientists and technologists pay lip-service to Darwinian theory only because it supposedly excludes a Creator..."[2]

As will be seen throughout this book, no matter how much the authors of the booklet *Science and Creationism* bear the name of scientists, they have actually long since abandoned not only science, but also reason and logic, and have set themselves the aim of denying the existence of God and the fact that everything has a creator. These people believe that a protein which has a 1 in $10^{40,000}$ chance of emerging by chance actually did so, and that this was then followed by hundreds of thousands of no less improbable coincidences. They imagine that mutations, which bring living things nothing but lethal diseases such as cancer, have the power to turn apes into human beings who think, reason, judge, decide, follow policies, found civilizations, produce splendid works of art, rejoice, feel sorrow, make friends, raise families, win Nobel prizes and Oscars—into students who read hundreds of thousands of printed pages, and into artists, scientists, politicians, architects and teachers. They have lost their powers of reason because of the ideologies they maintain and so blindly support.

It is for that reason that, as the Scandinavian scientist Soren Lovtrup puts it:

> I suppose that nobody will deny that it is a great misfortune if an entire branch of science becomes addicted to a false theory. But this is what has happened in biology: for a long time now people discuss evolutionary problems in a peculiar "Darwinian" vocabulary—"adaptation," "selection pressure," "natural selection," etc.—thereby believing that they contribute to the explanation of natural events. They do not... I believe that one day the Darwinian myth will be ranked the greatest deceit in the history of science.[3]


THE NAS'S ERROR
REGARDING THE
ORIGIN OF LIFE

There is no doubt that the first question the theory of evolution, which claims to explain the origin of life, has to answer is how life in an inanimate universe began and how inanimate materials came to produce living ones. Yet for some reason, the National Academy of Sciences' booklet *Science and Creationism*, prepared with the aim of putting forward "the most important proofs of the theory of evolution," contains no answer to that question. Instead, it contains the NAS authors' assumptions, which portray the theory of evolution as if it were something unquestioned and definitively proved, with no room for doubt, and which paint a "rosy picture" for evolutionists. This is what the authors have to say, as though the question of how it is that inanimate matter gave rise to living things as a result of chance chemical processes were not one of the greatest dilemmas facing the theory of evolution:

> For those who are studying the origin of life, the question is no longer whether life could have originated by chemical processes involving nonbiological components. The question instead has become which of many pathways might have been followed to produce the first cells. *(Science and Creationism*, p. 6*)*

This is how the authors refer to the probability of the "chemical process" in question:

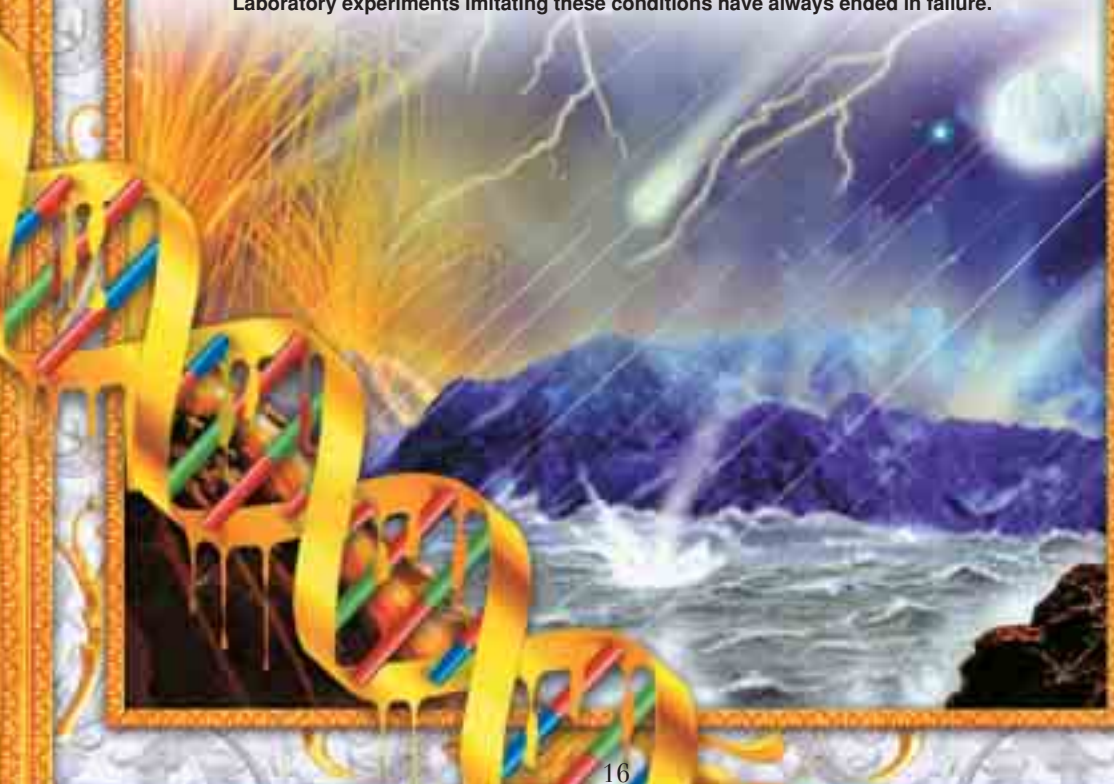
> Experiments conducted under conditions intended to resemble those present on the primitive Earth have resulted in the production of some of the chemical components of proteins, DNA, and RNA. Some

> of these molecules also have been detected in meteorites from outer space and in interstellar space by astronomers using radio telescopes. Scientists have concluded that the "building blocks of life" could have been available early in Earth's history. *(Science and Creationism*, p.5*)*

In essence, what the NAS authors and evolutionists are claiming is this: In the environment of the inanimate world, commonly known as the "primeval soup," all the materials necessary for life to emerge existed, and these coincidentally came together by means of chemical processes to create the first living cell.

Although the NAS in particular does not actually spell it out, not one piece of evidence exists to back up this claim. In fact, the evidence all goes to invalidate the evolutionists' claims. Furthermore, experts on the subject, including evolutionists, decline to use such a confident and cer-

The conditions in the earliest periods of the Earth are among the most important factors making it impossible for the cell and its building blocks to have emerged by themselves. Laboratory experiments imitating these conditions have always ended in failure.



tain manner of speaking as the NAS writers, and accept that the subject of the origin of life is an unknown as far as the theory of evolution goes. Just the realization that the primeval Earth's atmosphere contained sufficient quantities of oxygen to tear apart any organic molecules (the establishment of the fact that it was not "reducing" as chemists put it) places the theory of evolution in a most difficult position as regards the origin of life. Noam Lahav, for instance, the evolutionist author of the book *Biogenesis: Theories of Life's Origins*, says:

> [B]y challenging the assumption of a reducing atmosphere, we challenge the very existence of the "pre-biotic soup", with its richness of biologically important organic compounds. Moreover, so far, no geochemical evidence for the existence of a pre-biotic soup has been published. Indeed, a number of scientists have challenged the pre-biotic soup concept, noting that even if it existed, the concentration of organic building blocks in it would have been too small to be meaningful for pre-biotic evolution.[1]

In other words:

The high level of oxygen in the primeval atmosphere is an obstacle to the emergence of "the building blocks of life."

Even if it is assumed that these did emerge, it is impossible for them to have given rise to proteins, RNA or DNA by means of chemical reactions or chance. That is because proteins, RNA or DNA contain the most concentrated amounts of information and it is statistically impossible for that information to emerge at random.

Careful attention reveals that the NAS authors ignore both facts, and attempt to gloss over the second in particular by employing a style that gives them away: many people hearing the words "the building blocks of life" might well think that "these building blocks exist, which means that life can emerge by itself." (This is the impression the NAS authors hoped to create.) This is mistaken, however, and also deceptive (from the NAS' point of view), because the "build-

ing blocks" in question are simple organic compounds such as amino-acids or nucleic acids, and it is impossible for these to turn into such complex structures as RNA or DNA. In just the same way, the existence of bricks, the "building blocks" of a house, does not mean that these actually came together by chance to make a house.

The NAS claims that many paths are known which might have been followed to create the first cell. That claim is most definitely incorrect. No scientist has found any means by which the first cell could have been created from inanimate matter. Professor Klaus Dose, director of the Johannes Gutenberg University Biochemistry Institute, expresses the problem in these terms:

> More than 30 years of experimentation on the origin of life in the fields of chemical and molecular evolution have led to a better perception of the immensity of the problem of the origin of life on earth rather than to its solution. At present all discussions on principal theories and experiments in the field either end in stalemate or in a confession of ignorance. New lines of thinking and experimentation must be tried…

The presence of all the materials necessary for the construction of a house is not enough for that construction to actually take place. There is also a need for rational and intelligent architects, construction engineers, technicians, laborers, etc. The same thing applies to the construction of the cell.

> Considerable disagreements between scientists have arisen about detailed evolutionary steps. The problem is that the principal evolutionary processes from prebiotic molecules to progenotes [the earliest genetic organisms] have not been proven by experimentation and that the environmental conditions under which these processes occurred are not known. Moreover, we do not actually know where the genetic information of all living cells originates, how the first replicable polynucleotides (nucleic acids) evolved, or how the extremely complex structure-function relationships in modern cells came into existence... It appears that the field has now reached a stage of stalemate, a stage in which hypothetical arguments often dominate over facts based on experimentation or observation.[2]

The evolutionist biologist Andrew Scott makes a similar admission, saying:

> Take some matter, heat while stirring and wait. That is the modern version of Genesis. The 'fundamental' forces of gravity, electromagnetism and the strong and weak nuclear forces are presumed to have done the rest... But how much of this neat tale is firmly established, and how much remains hopeful speculation? In truth, the mechanism of almost every major step, from chemical precursors up to the first recognizable cells, is the subject of either controversy or complete bewilderment.[3].

David A. Kaufman, a professor of biochemistry, admits that the theory of evolution cannot account for the origin of genetic life in these terms:

> Evolution lacks a scientifically acceptable explanation of the source of the precisely planned codes within cells without which there can be no specific proteins and hence, no life.[4]

Instead of admitting that the theory of evolution offers no explanation however, the NAS authors prefer to resort to deception by painting an unrealistic picture in its favor. They put forward the

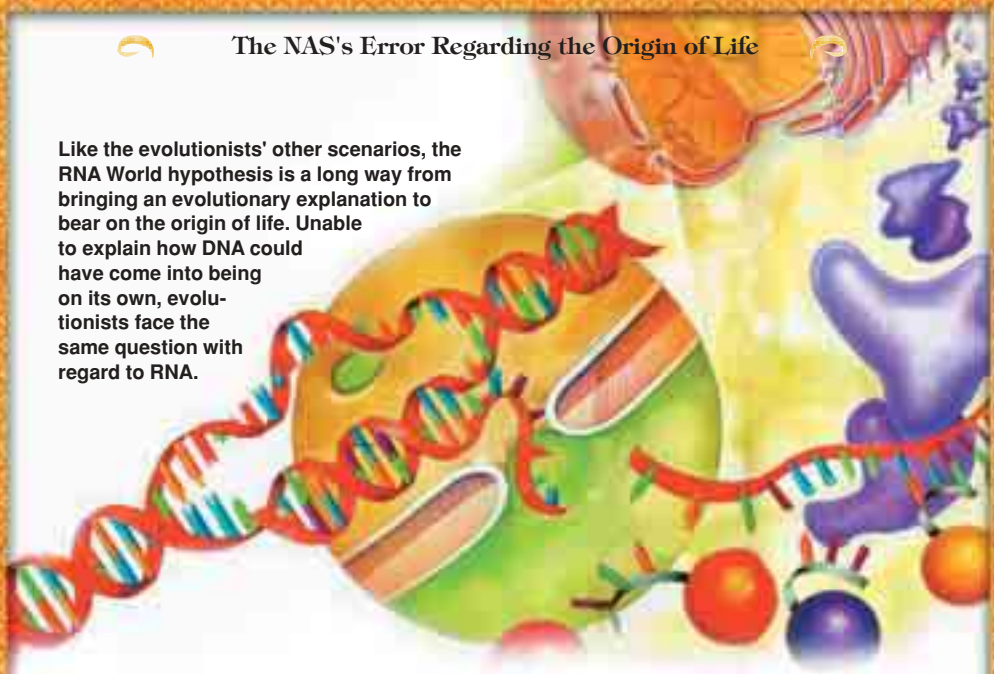
groundless claim that there is proof of evolution in all areas and that they possess several hypotheses accounting for the origin of life, which is something that no expert on the subject could possibly confirm. This rosy picture painted by evolutionists very definitely fails to reflect the true state of affairs. Each one of the hypotheses regarding the origin of life is in the same quandary, and these alternatives all fail to resolve the problem; they all merely pose the question in a different form. One of these so-called alternatives in the *Science and Creationism* is the "RNA World" hypothesis. Despite being at present one of the most popular hypotheses amongst evolutionists, the RNA World theory actually contains a great many difficulties, as we shall be seeing, and is clearly a scenario which could never have taken place.

The RNA World Scenario

In the book *Science and Creationism*, the RNA World hypothesis is suggested as one of the alternative (and reasonable) explanations of the origin of life. However, the RNA World hypothesis is at a loss to account for the origin of life just like all the explanations put forth by evolutionists.

The discovery in the 1970s that the gases originally existing in the primeval Earth's atmosphere would have rendered amino-acid synthesis impossible was a serious blow to the theory of molecular evolution. Evolutionists then had to face the fact that the "primitive atmosphere experiments" by Stanley Miller, Sydney Fox, Cyril Ponnamperuma, and others were invalid. For this reason, in the 1980s the evolutionists tried again. As a result, the RNA World hypothesis was advanced. This scenario proposed that, not proteins, but rather the RNA molecules that contained the information for proteins, were formed first.

According to this scenario, advanced by Harvard chemist Walter Gilbert in 1986, inspired by the discovery of "ribozymes" by Thomas



Like the evolutionists' other scenarios, the RNA World hypothesis is a long way from bringing an evolutionary explanation to bear on the origin of life. Unable to explain how DNA could have come into being on its own, evolutionists face the same question with regard to RNA.

Cech, billions of years ago an RNA molecule somehow capable of replicating itself happened to come into existence. Under the influence of the environmental conditions surrounding it, this RNA molecule suddenly began to produce proteins. Later still, the need arose to store their information in a second molecule, and the DNA molecule somehow came into being.

This scenario, which is hard even to imagine and which consists of a chain of impossible events, enlarged the dimension of the problem instead of explaining the origin of life, and gave rise to a number of unanswerable questions. Some of these questions are:

1 – Whilst it is impossible to account for the emergence of even a single one of the nucleotides which comprise RNA, how did fictitious nucleotides manage to come together in an appropriate sequence to form RNA? The evolutionist biologist John Horgan admits the impossibility of RNA's having come into existence by chance:

> As researchers continue to examine the RNA-World concept closely, more problems emerge. How did RNA initially arise? RNA and its components are difficult to synthesize in a laboratory under the best

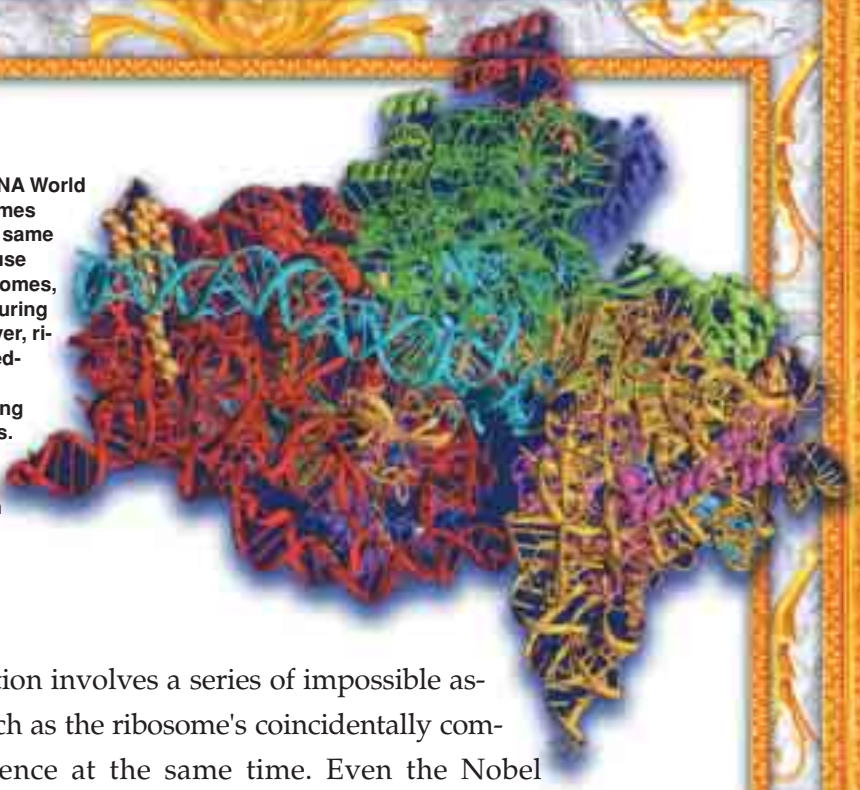
of conditions, much less under really plausible ones.[5]

2 – Even if we assume that it did come into existence by chance, with what consciousness did this RNA molecule consisting solely of a string of nucleotides decide to replicate itself, and by what mechanism did it succeed in doing so? Where did it find the nucleotides it would use while replicating itself? The evolutionist microbiologists Gerald Joyce and Leslie Orgel express the hopelessness of the position in these terms:

> This discussion… has, in a sense, focused on a straw man: the myth of a self-replicating RNA molecule that arose de novo from a soup of random polynucleotides. Not only is such a notion unrealistic in light of our current understanding of prebiotic chemistry, but it would strain the credulity of even an optimist's view of RNA's catalytic potential.[6]

3 – Even if we go so far as to accept that RNA capable of replicating itself did emerge in the primeval Earth's atmosphere and that every kind of amino acid the RNA would use was present in unlimited quantities and that all these impossibilities in some way happened, that still is not sufficient for the emergence of a single protein molecule. That is because RNA is nothing but information insofar as protein structure is concerned. Amino acids are the raw material. Yet there is no "mechanism" here that might produce the protein. Considering the existence of RNA as sufficient for the production of protein is just as meaningless as expecting the thousands of parts that would go to make up a car to congregate on the blueprint of that car and for the vehicle to assemble itself.

A protein is produced at the end of exceedingly complicated processes within the cell inside an organelle known as the ribosome, together with the help of a large number of enzymes. The ribosome is a complicated cell structure consisting of RNA and proteins. For that rea-



According to the RNA World hypothesis, ribosomes need to form at the same time as RNA, because RNA requires ribosomes, a protein-manufacturing mechanism. However, ribosomes are exceedingly complex organelles consisting of complex proteins. It is impossible to account for the origin of ribosomes in terms of chemical reactions.

son, this situation involves a series of impossible assumptions, such as the ribosome's coincidentally coming into existence at the same time. Even the Nobel prize-winning Jacques Monod, one of the best-known proponents of the theory of evolution, explained that protein synthesis can by no means be considered to depend merely on the information in the nucleic acids:

> The code is meaningless unless translated. The modern cell's translating machinery consists of at least 50 macromolecular components, which are themselves coded in DNA: the code cannot be translated otherwise than by products of translation themselves. It is the modern expression of *omne vivum ex ovo*. **When and how did this circle become closed? It is exceedingly difficult to imagine.**[7]

By what means could an RNA chain in the primitive atmosphere have taken such a decision, and what methods could it have employed to carry out protein production and perform the functions of 50 special components? Evolutionists have no answer to this question. One article in the well-known scientific journal *Nature* stated that the concept of "self-replicating RNA" was a totally imaginary one, and that no such RNA had ever been produced under experimental conditions:

> DNA replication is so error-prone that it needs the prior existence of protein enzymes to improve the copying fidelity of a gene-size piece of DNA. "Catch-22" say Maynard Smith and Szathmary. So, wheel on RNA with its now recognized properties of carrying both informational and enzymatic activity, leading the authors to state: "In essence, the first RNA molecules did not need a protein polymerase to replicate them; they replicated themselves." Is this a fact or a hope? I would have thought it relevant to point out for 'biologists in general' that **not one self-replicating RNA has emerged to date from quadrillions (10^{24}) of artificially synthesized, random RNA sequences.** [8]

Stanley Miller, a professor at the University of California—San Diego, and the well-known evolutionist Leslie Orgel, a colleague of Francis Crick, use the term "scenario" for the possibility that "life might have begun with the RNA World." In an article called "The Origin of Life on the Earth," published in *Scientific American* in its October 1994 edition, Orgel set out the features that RNA would need to possess and the impossibility of its doing so:

> This scenario could have occurred, we noted, if prebiotic RNA had two properties not evident today: a capacity to replicate without the help of proteins and an ability to catalyze every step of protein synthesis.[9]

It can clearly be seen that expecting Orgel's precondition of these two complex processes from a molecule such as RNA is a violation of scientific thinking. Concrete scientific facts reveal that the "RNA World" thesis, a new version of the claim that life emerged by chance, is a scenario which could never have happened.

John Horgan

In his book *The End of Science*, John Horgan describes a conversation with Stanley Miller, who gave his name to the famous Miller experiment which subsequently proved to be invalid. Miller said that he found the latest theories put forward regarding the origin of life to be meaningless, and rather despised them:

> In fact, almost 40 years after his original experiment, Miller told me that solving the riddle of the origin of life had turned out to be more difficult than he or anyone else had envisioned… Miller seemed unimpressed with any of the current proposals on the origin of life, referring to them as "nonsense" or "paper chemistry." He was so contemptuous of some hypotheses that, when I asked his opinion of them, he merely shook his head, sighed deeply, and snickered-as if overcome by the folly of humanity. Stuart Kauffman's theory of autocatalysis fell into this category. "Running equations through a computer does not constitute an experiment," Miller sniffed. Miller acknowledged that scientists may never know precisely where and when life emerged.[10]

Even the fiercest proponents of evolution, such as Miller, who led the effort to discover an evolutionary explanation for the origin of life, make statements of despair as far as the theory of evolution goes, and thus clearly reflect the enormous difficulties in which the theory finds itself.

THE NAS'S CELL FROM MARS ERROR

It is also suggested in the booklet *Science and Creationism* that the first cells might have come to earth from Mars. (*Science and Creationism* p. 7)

Mars is a refuge for evolutionists who are unable to explain how the first cell might have come into being by chance in the conditions of the primeval world. However, a theory which cannot explain how the first cell came into existence on Earth will encounter just the same difficulty on Mars. Indeed, a great many difficulties and obstacles will face a cell assumed to have emerged on Mars in the course of its journey to the Earth, which makes the claim that this first cell emerged on Mars quite untenable. The well-known physicist George Gamow states how any cell on such a "space voyage" would inevitably die:

> It must be borne in mind, however, that such travelling spores would be threatened by another agent much more perilous than the danger of "freezing to death." It is now known that the ultraviolet rays of the Sun, which are almost entirely absorbed by the terrestrial atmosphere, will rapidly kill any micro-organism that ventures beyond this protective shield. Thus, life must be inevitably extinguished in such travelling spores long before they are able to reach even the nearest planet. Besides, quite apart from the problem of the preservation of life during the long interstellar voyage, the "cosmozoan hypothesis" becomes rather senseless in the light of modern knowledge concerning the age and origin of the stellar universe.[11]

Professor Gamow's words are very clear, and the experiment shows that even if a cell did somehow emerge on Mars, it would be impossible for it to reach the Earth.

Here, what evolutionists ignore is the complexity of the cell

structure. They attempt to give the impression that the only difficulty regarding the emergence of the first cell is the conditions on the Earth. As a result, they claim that if those conditions on Earth were unsuitable, the first cell must have formed on Mars. The fact is, however, that the point which really makes it impossible for the first cell to have come into existence by itself, under random conditions, is the complex structure and superior organization possessed by the cell.

The cell comprises a great many different organelles, each with its own very complex structure. For instance, the cell membrane permits certain compounds to enter the cell and keeps others out. It

Evolutionists are unable to explain how the first cell could have formed in the conditions of the primitive Earth. One of the places evolutionists seek refuge is Mars. However, what is impossible on Earth is also impossible on Mars.

The theory of evolution is unable to explain how a cell turned into fish, birds, flowers, and human beings.

recognizes substances harmful to the cell and refuses to admit them. The nucleic acids in the cell (DNA and RNA) contain all the information about the organism. The amount of information contained in these structures can be compared to that in a whole library. The cell also contains protein-producing ribosomes. These use hundreds of amino acids to produce protein. Each separate part is of a wondrous complexity. None of these can exist on its own, and if even one is missing, the cell cannot form. For that reason, all the cell's components and organelles must have existed together from the very beginning. It is impossible, as the theory of evolution

would have us believe, for these tiny components to have come together stage by stage over millions of years.

Fred Hoyle and Chandra Wickramasinghe, both professors of mathematics and astronomy, explain how there is no possibility that life could have come about on its own as the result of chance, either on the Earth or on another planet, in these terms:

> The trouble is that there are about two thousand enzymes, and the chance of obtaining them all in a random trial is only one part in $(10^{20})^{2,000} = 10^{40,000}$, an outrageously small probability that could not be faced even if the whole universe consisted of organic soup. If one is not prejudiced either by social beliefs or by a scientific training into the conviction that life originated on the Earth [by chance or natural processes], this simple calculation wipes the idea entirely out of court.
>
> . . . Life cannot have had a random beginning. Troops of monkeys thundering away at random on typewriters could not produce the works of Shakespeare, for the practical reason that the whole observable universe is not large enough to contain the necessary monkey hordes, the necessary typewriters, and certainly the waste paper baskets required for the deposition of wrong attempts. The same is true for living material.[12]

As we have seen, what makes the emergence of the first cell impossible is not only the unsuitable conditions in the primeval atmosphere, but also the complex structure of the cell and the fact that that structure could not have come about by chance. There is thus no reason why something which is impossible on Earth should be able to take place on Mars. In the same way that it is impossible for random letters thrown onto the ground to make a meaningful phrase on Earth, so it is also impossible on Mars. Nobody can say "If we throw them onto the ground on Mars, a co-

Unable to explain how the first cell could have come about by chance, and in order to deny God's creation, evolutionists suggest that the first cell was brought to Earth by creatures from space.

herent phrase will emerge."

The Nobel prize-winning Professor Manfred Eigen states that the thesis that life came from space in no way resolves the difficulties facing the theory of evolution:

> The discrepancy between the numbers of sequences testable in practice and imaginable in theory is so great that attempts at explanation by shifting the location of the origin of life from Earth to outer space do not offer an acceptable solution to the dilemma. The mass of the universe is 'only' 10^{29} times, and its volume 'only' 10^{57} times that of the Earth.[13]

Furthermore, a cell coming to the earth from space cannot solve the difficulties of the theory of evolution, since the theory is unable to explain how a single cell managed to turn into fish, birds, flowers and human beings.

Fred Hoyle and Chandra Wickramasinghe were among the most ardent supporters of the idea that life might have come from space (1981). Francis Crick (1981) and Leslie Orgel (1973) also proposed the idea of "panspermia" (the claim that amino acids in meteors from space reacted with organic substances, thus producing life). They even took the idea further, suggesting that life had been designed by living things in space and then sent to Earth. This is just as futile as claiming that amino acids or the first cell came to Earth via meteorites, since the question obviously remains of how the aliens who designed life themselves came into being.

What compels evolutionists to put forward these claims, for which there is no evidence and which have no other value than as fodder for science fiction films? The reason is that these people see that it is impossible for an evolutionary approach to account for the origin of life and are desperately seeking a materialist explanation at all costs. Just to avoid believing in the existence of God, these scientists have suffered such a collapse of logic as to be able to believe, without a shred of evidence, in the existence of space creatures—and are unable to see that the question of how these creatures came into existence will again leave them staring creation in the face.

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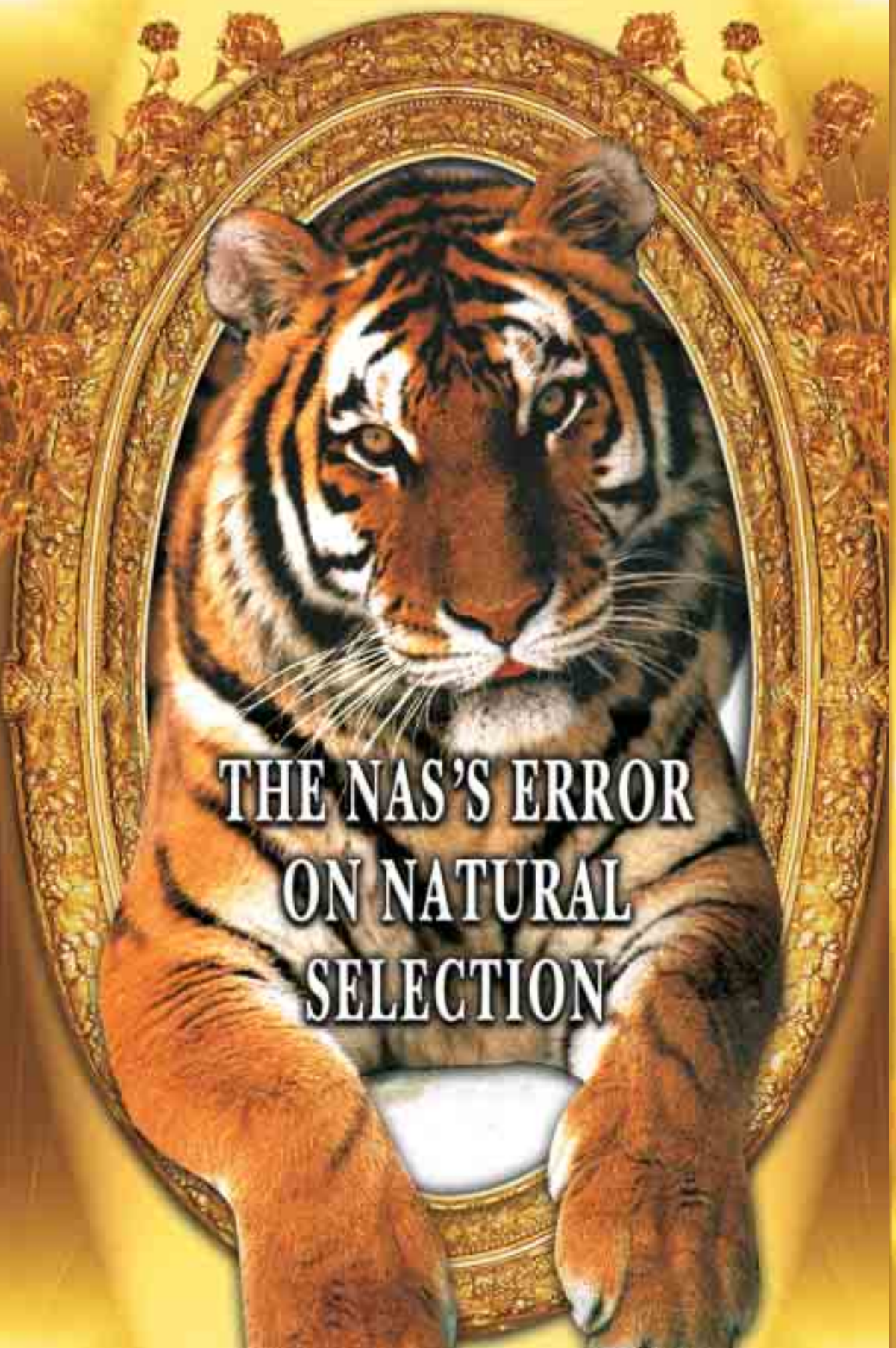
1 George Gamow, *Biography of the Earth*, Viking Press, 1959, p. 156.

2 Sir Fred Hoyle-Chandra Wickramasinghe, *Evolution from Space*, New York: Simon and Schuster, 1984, p. 24, p. 148.

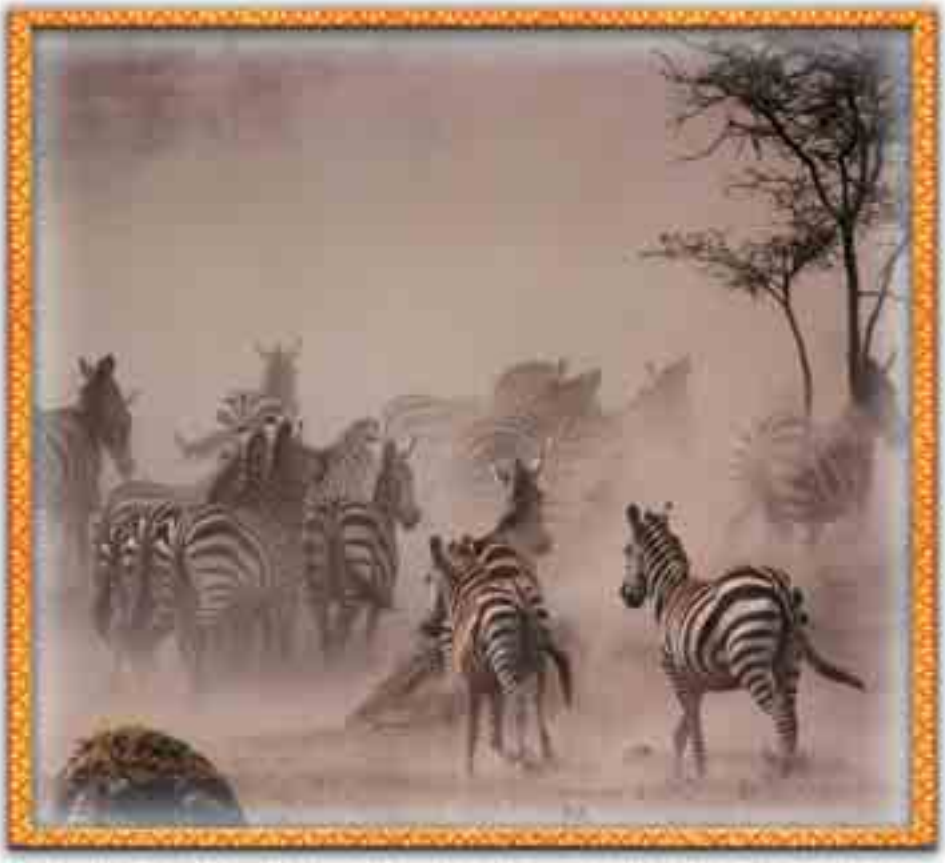
3 Manfred Eigen, *Steps Toward Life*, Oxford: Oxford University Pres, 1992, p. 11.


THE NAS'S ERROR
ON NATURAL
SELECTION

In the section of *Science and Creationism* called "Evidence Supporting Biological Evolution," anyone hoping to find evidence for the theory of evolution will suffer a grave disappointment. The chapter contains subjects which evolutionists never cease repeating, like a mantra, even though their invalidity has been proved time and time again. Naturally enough, "natural selection," regarded as one of the fundamental mechanisms of evolution, heads the list of these mantras.

The correct definition of natural selection, which was known well before Darwin, is this: Those living things whose features are best suited to the conditions in their surroundings naturally have a better chance of survival. For instance, in a place where winters are long and the ground remains covered with snow for extended periods, white-furred rabbits will be better camouflaged and fall prey to predators less often than darker ones, giving them a greater chance of surviving, and thus of reproducing. This being the case, the proportion of white-furred rabbits in the population will keep rising, while the relative number of dark-furred rabbits will decline. To give another example, in a herd of zebras which constantly have to flee from leopards, those which run fastest will survive while the others die. Since fast runners will survive in every generation, the herd will come to consist of nothing but fast runners in a few generations' time.

That is the definition of natural selection: the best-



In a herd of zebra, the fastest runners have a better chance of survival, and slower runners are hunted down and eliminated. As a result, this herd will consist of fast runners in a few generations' time.

adapted survive, while the others are eliminated. That is why the species in question continues to become ever better adapted. This may not always apply, of course. For example, in an area where the climate is changing and the snow covering is disappearing—say, due to global warming—the white rabbits would suddenly be at a disadvantage compared to dark rabbits, and so, having now become poorly adapted, they would be doomed to disappear. Therefore, natural selection cannot always be expected always to select the same features for a given species.

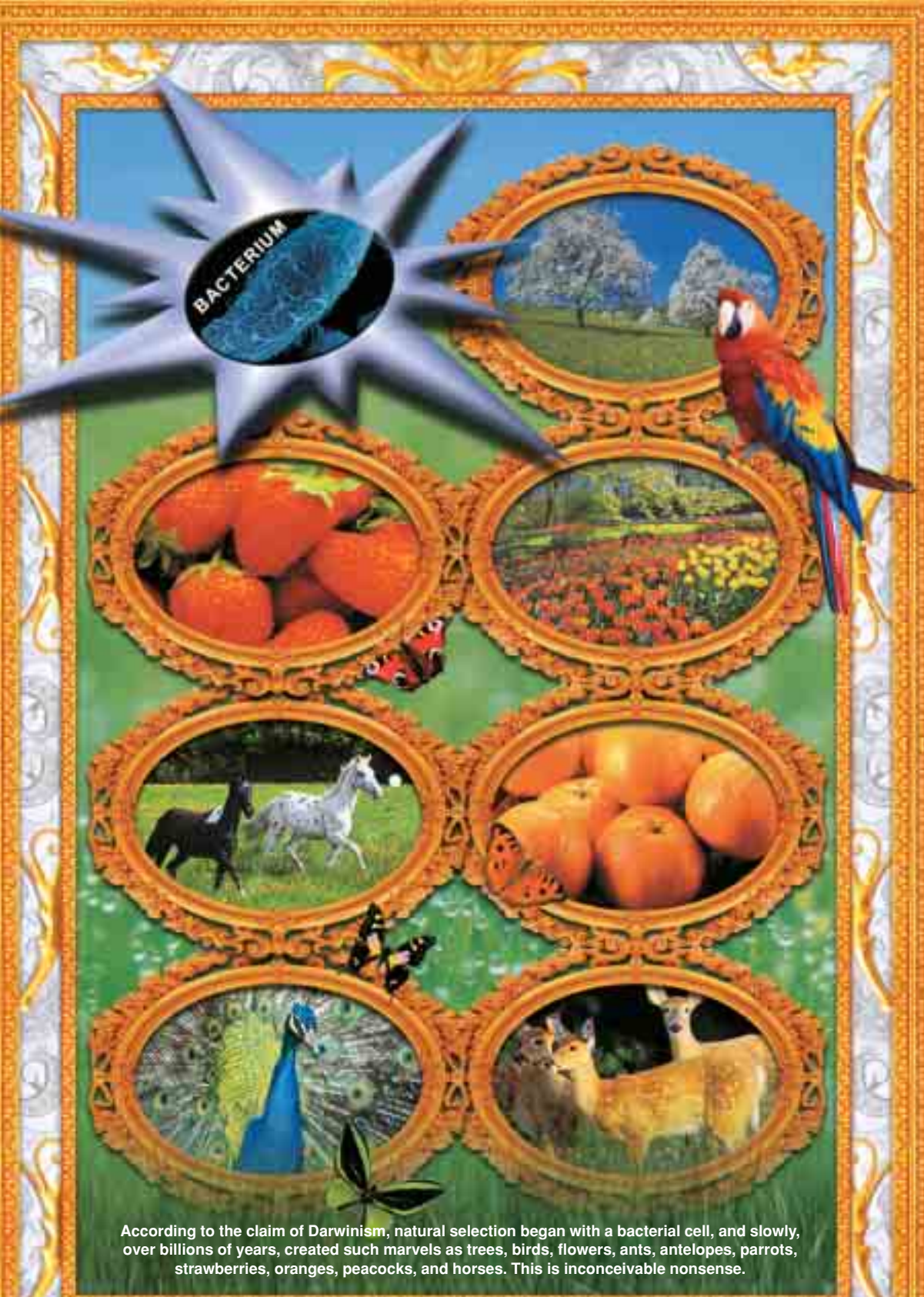
Evolutionists, however, believe that natural selection selects and gradually accumulates the same features in a species over millions of years, acting on variation within a species and then somehow giving rise to entirely different species. The fact is, however, that even if natural selection did always select the same characteristics, this would only lead to the improvement of certain features in living species by spreading advantageous characteristics throughout the whole population. It could not lead to these beings' acquiring totally new characteristics. Much less, then, could it afford them the opportunity to turn into other species.

A species can only change to the extent that its genes permit.

Rabbits always remain rabbits, and zebras remain zebras. That is because the genetic pool (genome) of a species prevents it from turning into another one. A species can only change to the extent permitted by its genes.

Darwin, however, loaded an extra meaning onto natural selection over and above this scientific definition, and suggested that it was the basic mechanism of evolution. According to Darwin and contemporary evolutionists, natural selection, devoid of any reason or consciousness, began with a single-celled bacterium and gradually, over billions of years, created such marvels as trees, birds, flowers, ants, deer, parrots, strawberries, oranges, horses, peacocks, and human beings. It is clear that this claim is inconsistent and unscientific, because natural selection cannot bring about new characteristics or new genetic information; it can only select between among what already exists.

Stephen Jay Gould, one of the theory of evolution's most prominent supporters, says that evolutionists are seeking from natural selec-



According to the claim of Darwinism, natural selection began with a bacterial cell, and slowly, over billions of years, created such marvels as trees, birds, flowers, ants, antelopes, parrots, strawberries, oranges, peacocks, and horses. This is inconceivable nonsense.

Roger Lewin

tion a power it does not possess:

The essence of Darwinism lies in a single phrase: natural selection is the major creative force of evolutionary change. No one denies that natural selection will play a negative role in eliminating the unfit. Darwinian theories require that it create the fit as well.[1]

In an article published in *Scientific American* in 1994, Gould describes the limitations of natural selection in these terms:

> Natural selection is therefore a principle of local adaptation, not of general advance or progress.[2]

In his comments on a new mechanism for evolution postulated by Edward Wiley and Daniel Brooks, Roger Lewin says:

> Natural selection, a central feature of neo-Darwinism, is allowed for in Brooks and Wiley's theory, but only as a minor influence. "It can affect survivorship" says Brooks. "It can weed out some of the complexity and so slow down the information decay that results in speciation. It may have a stabilizing effect, but it does not promote speciation. **It is not a creative force** as many people have suggested."[3]

A book by four evolutionary biologists titled *Parasitology* makes the following statement about natural selection:

> Natural selection can act only on those biologic properties that already exist; it cannot create properties in order to meet adaptational needs.[4]

The subject which evolutionists really need to explain is how the above "biologic properties that already exist" came to be. Evolutionists themselves confess that natural selection is unable to provide an answer. That is why the neo-Darwinist theory was proposed. Neo-Darwinism suggests that the biological changes expected to be chosen

by natural selection came about by means of mutations. As we shall be seeing, however, mutations are incapable of bringing about the beneficial changes necessary for a living thing to evolve.

The Error in Darwin's Analogy Method

Darwin arrived at his conclusion that natural selection was the mechanism which accounted for the origin of species, not by means of experiment or observation, but by a method of comparison.

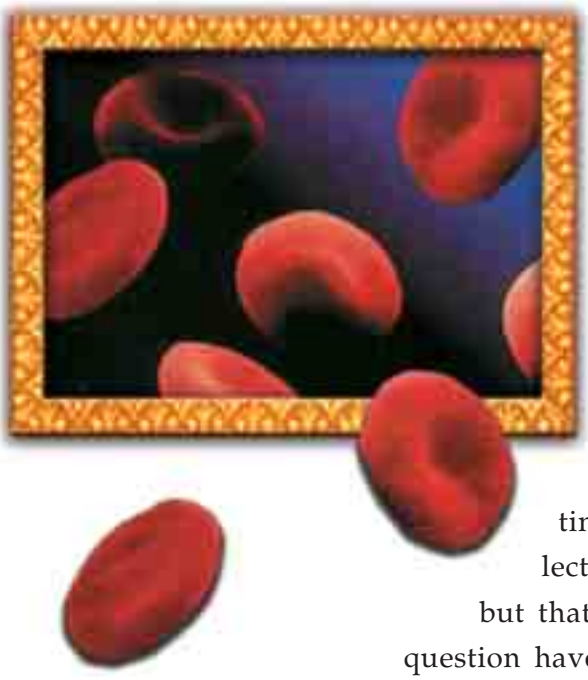
In Darwin's time there was considerable interest in livestock breeding. Despite frequent claims that Darwin's ideas were inspired by the beaks of Galapagos finches and Malthus's demographic studies, the inspiration behind them actually came from livestock breeding.

Darwin drew an analogy between the breeding of livestock (artificial selection) and natural selection, and concluded that if livestock and plant breeders can improve plants and animals through the use of artificial selection and breed sheep with better wool, cows with more flesh and better running horses, then nature may well do these also. Yet this comparison is misleading in a number of respects. First and foremost, those who breed animals and plants possess the necessary information to select the most suitable and to protect what they select. Darwin's theory, on the other hand, maintains that aimless natural process can replace a rational one.

Gould has made the following comment regarding the invalidity of this comparison:

> [Tom] Bethell argues quite correctly [in a piece called "Darwin's Mistake" in *Harper's*] that [Darwin] relied upon analogy to establish it [his definition of survival of the fittest], a dangerous and slippery strategy.[5]

There is a limit to even the most expert breeders' ability to produce variation—in other words, varying characteristics—within a



species. No new animal species has ever been obtained as a result of animal breeding. The reason for this is not that animal or plant breeders have been unable to continue their artificial selection right to the end, but that the living things in question have reached the end of their genetic limits. The renowned French zoologist Pierre-Paul Grassé has stated that artificial selection testifies against Darwinism:

> In spite of the intense pressure generated by artificial selection [eliminating any parent not answering the criteria of choice] over whole millennia, no new species are born. A comparative study of sera, hemoglobins, blood proteins, interfertility, etc., proves that the strains remain the same specific definition. This is not a matter of opinion or subjective classification, but a measurable reality. The fact is that selection gives tangible form to and gathers together all the varieties a genome is capable of producing but does not constitute an innovative evolutionary process.[6]

To put it another way, the reason why dogs do not turn into lions is not that we have not been breeding them for long enough, but rather that dogs lack the necessary genetic capacity for this to happen.

Natural Selection's Circular Reasoning: "Survivors Survive"

Natural selection, regarded as the explanation of the origin of species, is not a scientific theory at all, but rather a tautology, a logical vicious circle. A tautology is a statement that appears to provide information, but that is really nothing but circular reasoning. Tautologies provide no new information. They cannot be tested, for which reason they are not scientific. A simple example of a tautology is "All hats are hats." This is a true sentence, but one which provides no information and explains nothing. Tautologies are often employed in jokes and poetry, but they should not be employed in scientific accounts.

Science explains effects in terms of causes. Since causes and effects are different things, they cannot have the same causal explanation. In a tautology, however, the cause and effect are the same, so no explanation is actually given, only the impression of one. When a doctor says, "Your father's hearing impairment has caused his deafness," that is a tautology. The doctor is offering no explanation at all of your father's deafness. The sentence contains two parts that appear to be cause and effect, but actually mean the same thing. One does not explain the other.

In addition to failing to explain anything, tautologies cannot be regarded as scientific because they cannot be tested and can never be refuted.

Natural selection is also formulated as a tautology by evolutionists. Natural selection is the survival of the fittest, and the tautology appears in the expression "of the fittest." "The fittest" are defined as

A tautology is a statement that appears to provide information, but actually does nothing of the sort. "All hats are hats" is a simple example of a tautology. This is a true statement, but one which provides no information.

those which survive. When we ask "Who are the fittest?," we are told "Those which survive." The answer to the question "Who survives?" is "The fittest." This means that natural selection is "the survival of the survivors." This is circular reasoning.

Some evolutionists maintain that natural selection is not a tautology, and that this is a misinterpretation by the proponents of Creation. The fact is, however, that prominent evolutionists also accept that natural selection is a tautology. That is why we feel the need to devote some space to statements by prominent evolutionists maintaining that natural selection is indeed tautological.

For example, the British geneticist J.B.S. Haldane accepts the tautological nature of natural selection by saying: "...the phrase 'survival of the fittest' is something of a tautology."[7]

Professor of Ecology R.H. Peters from Canada's McGill University also states that theories of evolution are tautological and that they cannot be regarded as scientific:

> I argue that the "theory of evolution" does not make predictions, so far as ecology is concerned, but is instead a logical formula which can be used only to classify empiricisms [theories] and to show the relationships which such a classification implies. These theories are actually tautologies and, as such, cannot make empirically testable

predictions. *They are not scientific theories at all.*[8]

Professor Steven Stanley of Johns Hopkins University has this to say about natural selection in his book *Macroevolution: Pattern and Process*:

> I tend to agree with those who have viewed natural selection as a tautology rather than a true theory.[9]

Karl Popper, regarded as one of the major philosophers of the twentieth century, cites evolutionists such as Ronald Fisher, J.B.S. Haldane and George Gaylord Simpson as examples, and says:

> Some of the greatest contemporary Darwinists themselves formulate the theory in such a way that it amounts to the tautology that those organisms that leave most offspring leave most offspring.[10]

Clearly, if someone wishes to learn how a bacterial cell could turn into a fish, a fish into a bird, and a reptile into a human being, it is no answer to tell him that "organisms which leave the most offspring are those which leave most offspring." Natural selection cannot prove anything about the claim that species evolve. Despite being aware of this, evolutionists play word and logic games and attempt to portray natural selection and evolution as a logical-sounding hypothesis.

Some evolutionists, such as Gould, are undecided when it comes to defending natural selection. Gould expresses that unwillingness in the words: "I, although I wear the Darwinian label with some pride, am not among the most ardent defenders of natural selection."[11] Despite being the person who proposed the theory of natural selection, Darwin himself offered a rather prescient analysis: **"I shall know that the theory of Natural Selection, is, in the main, safe; that it includes, as now put**

Karl Popper (1902-1994)

Despite being the person who suggested natural selection and the theory of evolution, Darwin said, "I shall know that the theory of Natural Selection, is, in the main, safe; that it includes, as now put forth, many errors, is almost certain, though I cannot see them."
(Charles Darwin to C. Lyell, October 11, 1859)

forth, many errors, is almost certain, though I cannot see them."[12]

It is most surprising and thought-provoking that evolutionist scientists should keep repeating this circular reasoning and regard natural selection as a force with the capacity to cause evolution. Many people believe in the theory of evolution without really knowing what it is they believe in. The philosopher of science Arthur Koestler expresses this fact:

> In the meantime, the educated public continues to believe that Darwin has provided all the relevant answers by the magic formula of random mutations plus natural selection—quite unaware of the fact that random mutations have turned out to be irrelevant and natural selection a tautology.[13]

Evolutionists' Errors in Regarding Natural Selection As a Conscious Mechanism

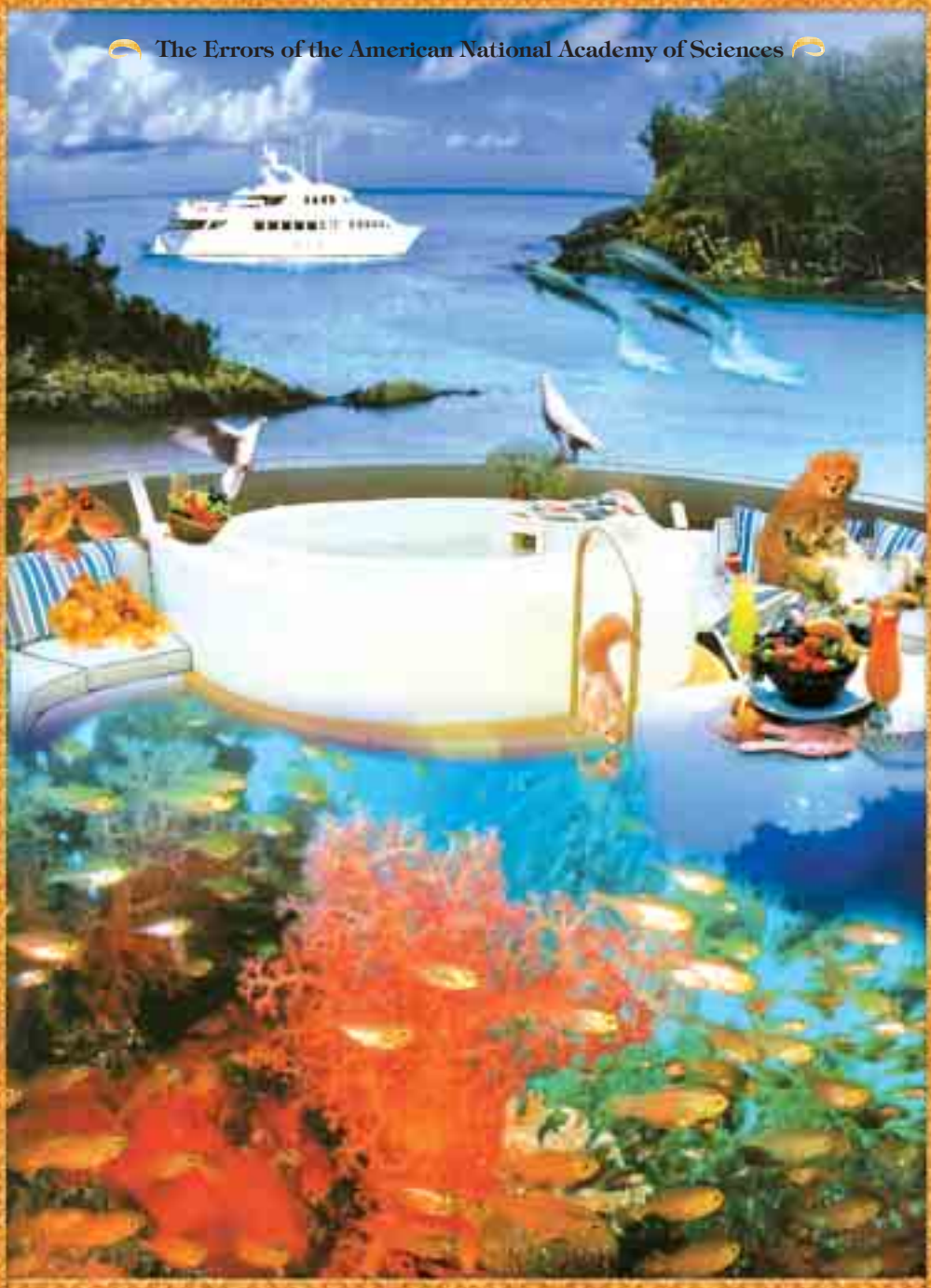
It is suggested in *Science and Creationism* that "Although the genetic variation on which natural selection works is based on random or chance elements, natural selection itself produces "adaptive" change—the very opposite of chance." *(Science and Creationism,* p. 10*)*. The evolutionist authors of the book are employing misleading expressions here.

They seek to give the impression that no matter how random the mutations selected by natural selection may be, since natural selection selects those that are best adapted, the overall result is not random. It is as though a conscious mechanism entered the equation.

However, anyone examining the subject a little deeper will see through the deception here: Natural selection is not a conscious mechanism capable of planning or foresight. This is most clearly revealed in the study of irreducibly complex organs: these structures only provide any benefit to an organism when they are fully formed. For instance, during the transition from water to land, which evolutionists so fondly dream of, natural selection would not select changes in a fish that might have produced only a few components of a lung. A structure that lacks any of the characteristics of a perfect lung is of no benefit to a land creature. Since natural selection is also unable to calculate that a fish might shortly emerge onto land and would therefore need a lung—and that the lung would therefore need to undergo many intermediate stages waiting for the accumulation of alterations—it would not select those changes. In this way, an animal with only a few of the necessary changes would be eliminated.

As the world-famous historian of biology William Coleman indicates:

> The organism, being a functionally integrated whole each part of which stood in close relation to every other part, could not, under pain of almost immediate extinction, depart significantly from the norms established for the species by the first anatomical rule.
>
> A major change, for example, a sharp increase in the heart beat or the diminution by half of the kidney and thus a reduction in renal secretion, would by itself have wrought havoc with the general constitution of the animal. In order that an animal might persist after a change of this magnitude it would be necessary that the other or-



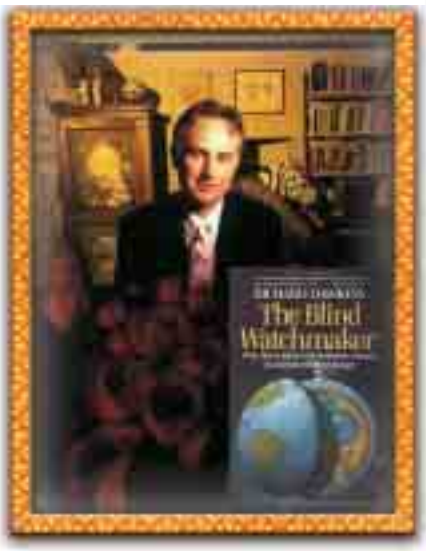
It is impossible for an unconscious and blind mechanism to have created the infinite variety of life on Earth.

gans of the body be also proportionally modified. In other words, an organism must change en bloc or not at all. Only saltatory modification could occur, and this idea was to Cuvier, as it is to most modern zoologists, but for very different reasons, unverified and basically absurd. Transmutation by the accumulation of alterations, great or small, would thus be impossible.[14]

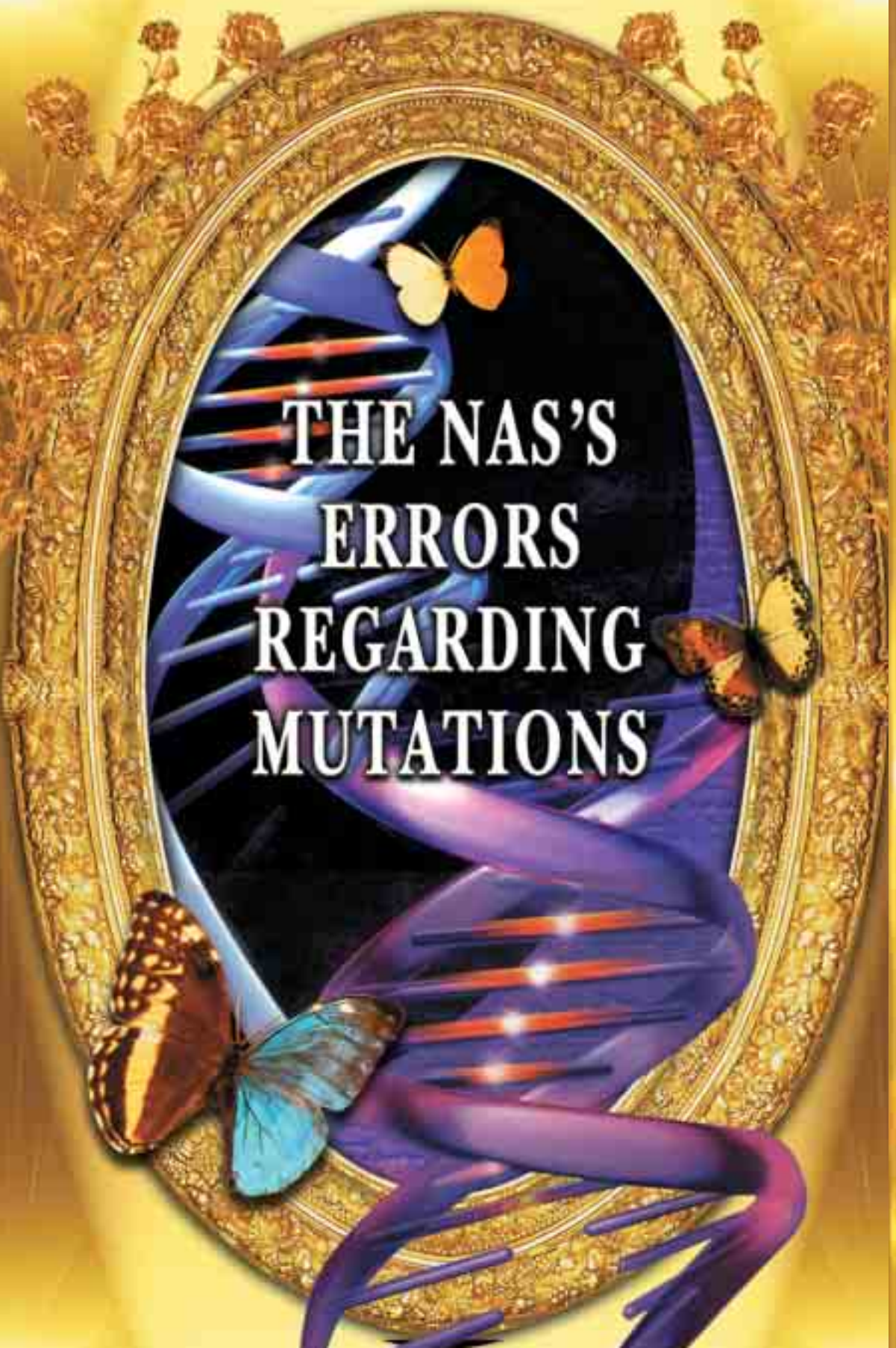
Evolutionists also accept that natural selection is an unconscious, blind process. Richard Dawkins, for example, one of the most passionate proponents of the theory of evolution, defines natural selection in these terms in his book *The Blind Watchmaker*:

> Natural selection, the blind, unconscious, automatic process which Darwin discovered, and which we now know is the explanation for the existence and apparently purposeful form of all life, has no purpose in mind. It has no mind and no mind's eye. It does not plan for the future. It has no vision, no foresight, no sight at all. If it can be said to play the role of watchmaker in nature, it is the *blind* watchmaker.[15]

It is impossible for an unconscious, blind mechanism to have created the complex information and design in living things. Evolutionists, who seek to portray natural selection as a divine creator of all living things, are no different from worshippers of idols and totems—pagans who ascribe divinity to natural events such as thunder and lightning. They are merely the twenty-first century version of such pagans.



Richard Dawkins and his book *The Blind Watchmaker*


THE NAS'S
ERRORS
REGARDING
MUTATIONS

The National Academy of Sciences suggests that mutations provide the necessary genetic variation for evolution, and refers to them as follows: "They may or may not equip the organism with better means for surviving in its environment." *(Science and Creationism,* p. 10). In fact, however, contrary to what the NAS authors claim, mutations do not lead to beneficial characteristics, and all experiments and observations on this subject have confirmed this fact.

Mutation refers to random changes in an organism's DNA, the molecule in which its genetic information is stored. Scientists compare DNA to a data bank or large library. Just as the random and unconscious addition of letters to any of the books in a library—or indeed any change in the order of the letters of such a book—will ruin the sense of the relevant words and sentences, so too does genetic mutation in organisms have an information-destroying effect. Mutation, which acts on the complex information in the DNA

Mutations are random changes in a living thing's DNA, the molecule in which its genetic information is contained.

Scientists compare DNA to a data bank or a large library.

in a random and unconscious manner, harms the DNA, and therefore harms the organism bearing the DNA. At best, it may have no effect at all. **However, mutations can never add any new information to DNA, and do not make any kind of improvement in the organism. Not a single instance of this has ever been observed.**

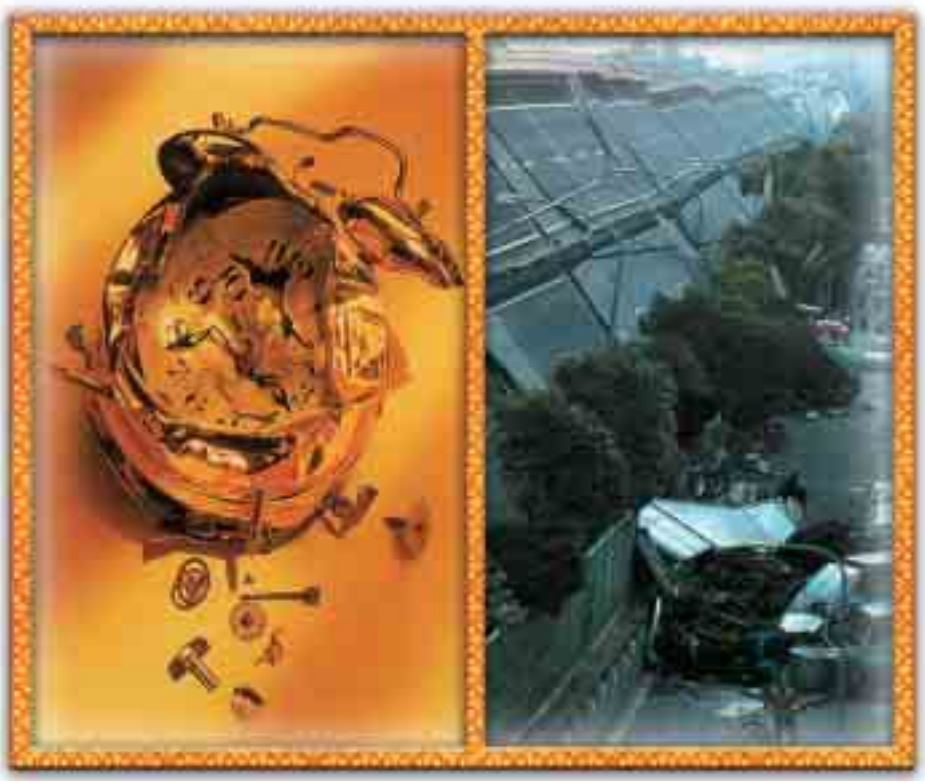
The latest example of this is the negative effects of mutations on human beings. In recent years, thousands of diseases have been

If letters are added randomly and unconsciously to any one of the books in a library, various words and sentences in that book will lose their meaning. The same thing applies to DNA. A random and unconscious intervention in the complex information in DNA—in other words, a mutation—will damage DNA, and consequently the organism itself. At best, a mutation may have no effect at all on the organism.

found to be caused by genetic mutations. Genetics textbooks list some 4,500 different genetic diseases. Such diseases caused by genetic mutations include Down's syndrome, sickle-cell anemia, dwarfism, mental impairment, cystic fibrosis, and certain forms of cancer. The reason why generations of people were born deformed or sick because of radiation at Hiroshima, and more recently Chernobyl, is again mutations.

Pierre-Paul Grassé, former president of the French Academy of Sciences and author of the 35-volume *Traité de Zoologie*, likened mutations to spelling mistakes in one of his papers, and said that they could never give rise to evolution:

> Mutations, in time, occur incoherently. They are not complementary to one another, nor are they cumulative in successive generations toward a given direction. They modify what preexists, but they do so in disorder, no matter how… As soon as some disorder, even slight, appears in an organized being, sickness, then death follow. There is no possible compromise between the phenomenon of life and anarchy.[1]



Scientists compare mutations to an earthquake in a city or a clock being thrown hard against a wall. In the same way that earthquakes do not develop cities, and hurling clocks against walls does not improve them, mutations do not improve living things, but rather damage them.

As Grassé states, mutations bring disorder to exceedingly ordered structures. Genetic mutations might be compared to an earthquake or to hurling a clock against a wall. In the same way that an earthquake cannot improve a city, nor a violent impact a clock, so too genetic mutations do not improve living things, but rather harm them. Evolutionists are aware of this, but still propose mutations as the mechanism that brings about evolution. In order to better see the evolutionists' inconsistencies in this area, it will be useful to include some statements on the harmful effects of mutations on living things

made by evolutionist scientists.

Francisco J. Ayala, of the University of California, Irvine, a professor of biological sciences and philosophy:

> High energy radiations, such as x-rays, increase the rate of mutation. Mutations induced by radiation are random in the sense that they arise independently of their effects on the fitness of the individuals which carry them. Randomly induced mutations are usually deleterious. In a precisely organized and complex system like the genome of an organism, a random change will most frequently decrease, rather than increase, the orderliness or useful information of the system.[2]

James F. Crow, head of the Genetics Department at the University of Wisconsin and an expert on radiation and mutation:

> **Almost every mutation is harmful**, and it is the individual who pays the price. Any human activity that tends to increase the mutation rate must therefore raise serious health and moral problems for man.[3]

> A random change in the highly integrated system of chemical processes which constitute life is almost certain to impair it—just as a random interchange of connections in a television set is not likely to improve the picture.[4]

> The biologist Dr. Mahlon B. Hoagland:

> The information that resides in organisms that are alive today . . . is far more refined than the work of all the world's great poets combined. The chance that a *random* change of a letter or word or phrase would *improve* the reading is remote; on the other hand, it is very likely that a random hit would be harmful. It is for this reason that many biologists view with dismay the proliferation of nuclear weapons, nuclear power plants, and industrially generated mutagenic (mutation-producing) chemicals.[5]

> You'll recall we learned that **almost always a change in an organism's DNA is detrimental to it**; that is, it leads to a reduced capacity

to survive. By way of analogy, random additions of sentences to the plays of Shakespeare are not likely to improve them! . . . **The principle that DNA changes are harmful by virtue of reducing survival chances applies whether a change in DNA is caused by a mutation or by some foreign genes we deliberately add to it**.[6]

The well-known mathematician Dr. Warren Weaver:

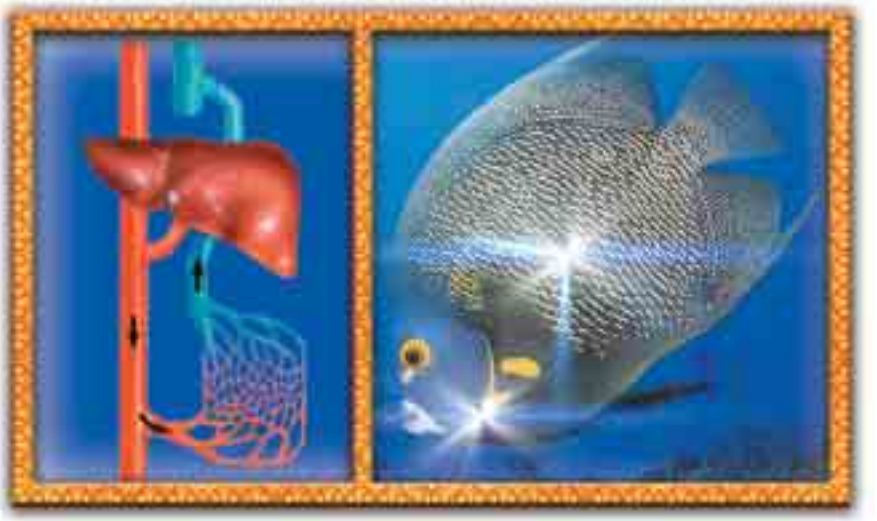
Moreover, the mutant genes, in the vast majority of cases, and in all the species so far studied, lead to some kind of harmful effect. In extreme cases the harmful effect is death itself, or loss of the ability to produce offspring, or some other serious abnormality.[7]

Many will be puzzled about the statement that practically all known mutant genes are harmful. For mutations are a necessary part of the process of evolution. How can a good effect—evolution to higher forms of life—result from mutations practically all of which are harmful?[8]

Weaver's question is a very important one, and demands an answer from evolutionists: **How can a good effect—evolution to higher forms of life—result from mutations practically all of which are harmful?**

I.L. Cohen, a member of the New York Academy of Sciences, says: "To propose and argue that mutations even in tandem with 'natural selection' are the root-causes for 6,000,000 viable, enormously complex species, is to mock logic, deny the weight of evidence, and reject the fundamentals of mathematical probability."[9] This statement unmasks the absurdity of those who believe that all life forms are the work of mutation and natural selection.

Another reason why evolutionists' claims regarding mutation are not credible is that just as there are no beneficial mutations, there is no mechanism in nature that might bring together and protect these useful mutations. For example, a blind creature will need a few muta-



In order for a gilled fish to become a creature breathing with lungs, it would need a great many mutations. To expect "beneficial" mutations and ones "aimed directly at the transition to the lung" to keep occurring is to believe in the impossible.

tions in order to possess an eye and an optic system. Expecting "beneficial" mutations accurately directed towards the eye, optic nerves, and visual center in the brain to keep occurring among that creature's descendants is to believe in the impossible. Therefore, consciousness and power are required to continue in that creature's descendants. Furthermore, they must foresee that the creature will need to see the outside world, they must provide all the necessary genetic information regarding vision and the eye, and they must carefully bring beneficial and accurate mutations together down the generations. Yet, there is no such consciousness and intelligence in nature.

Several evolutionists have drawn attention to this impossibility. For example, Professor Kevin Padian, of the University of California at Berkeley, asks whether random mutations in nature give rise to living species:

> How do major evolutionary changes get started? Does anyone still believe that populations sit around for tens of thousands of years, wait-

ing for favorable mutations to occur (and just how does *that* happen, by the way?), then anxiously guard them until enough accumulate for selection to push the population toward new and useful change? There you have the mathematical arguments of neodarwinism that Waddington and others rightly characterized as "vacuous".[10]

Grassé has this to say on the same point:

Mutations, in time, occur incoherently. They are not complementary to one another, nor are they cumulative in successive generations toward a given direction.[11]

Even if we grant what evolutionists can never actually demonstrate and accept that "favorable mutations" have come about in the necessary quantities, this still does not save the theory of evolution. Some important calculations by the Israeli bio-physicist Dr. Lee Spetner, who has worked at some of the most eminent universities in the world, such as MIT and Johns Hopkins, were brought to the attention of the scientific world in the book *Not By Chance*. In this book, which questions neo-Darwinism, Spetner employs the figures given by evolutionist authorities (such as mutation frequency and the ratio of "favorable mutations" to all mutations) and makes a detailed calculation of whether it is possible for one species to change into another. His conclusion is striking: Impossible! Even if we accept the theoretical existence of "favorable mutations," which have never been observed in experiments, it is still impossible for these to accumulate consecutively and in the right direction in a living species. It is also impossible for them to be permanent due to the disadvantages they bring with them, and thus it is impossible for a new species to emerge.

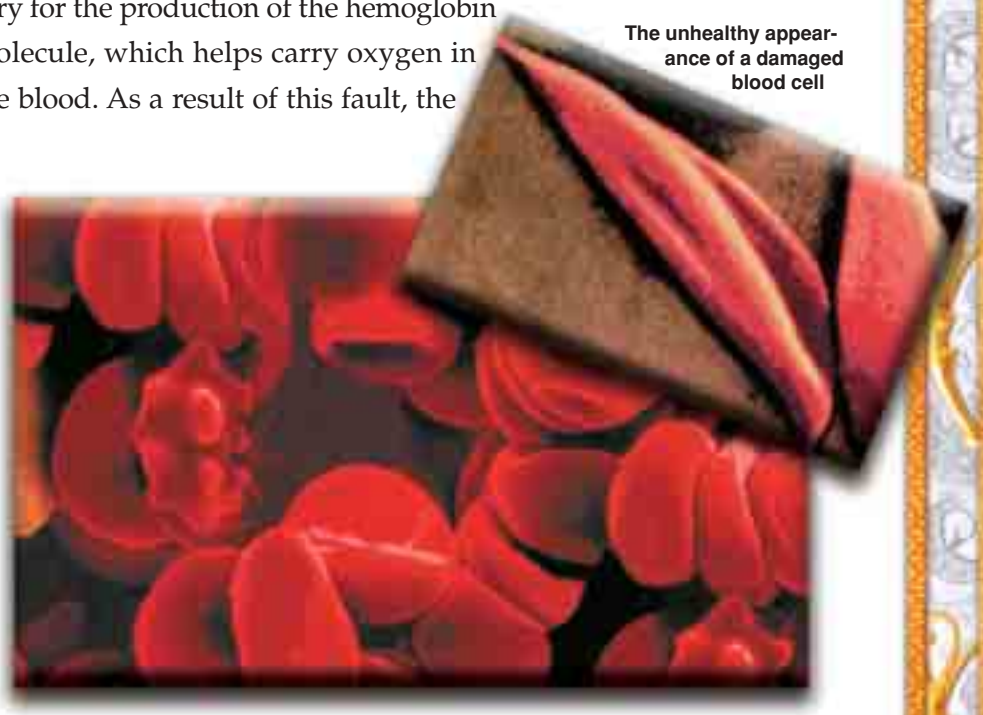
No evolutionist has been able to give a satisfactory response to Spetner's calculation.

"Favorable mutations" that never were

As we have seen, mutations are harmful to living things and no example of a beneficial mutation has ever been observed. The examples put forward by evolutionists as "beneficial mutations" all actually consist of distortions. In none of these examples have the benefits necessary for the evolution of an organism—that is, an increase in genetic information—ever come about. Let us now examine why the instances of "beneficial mutations" put forward by evolutionists are not actually useful at all, and cannot lead to evolution.

Sickle-cell anemia:

Sickle-cell anemia stems from an inherited fault in the code necessary for the production of the hemoglobin molecule, which helps carry oxygen in the blood. As a result of this fault, the



The unhealthy appearance of a damaged blood cell

Sickle-cell anemia is a serious disease stemming from an error in the gene that encodes the molecule hemoglobin, which is responsible for carrying oxygen in the blood—in other words, from a mutation.

structure of the hemoglobin molecule is defective and its ability to carry oxygen is severely impaired. The normal circular shape of the cells which carry hemoglobin becomes deformed and turns into a sickle shape. Since people with sickle-cell anemia gain a resistance to malaria, evolutionists describe this as a beneficial mutation. The fact is, however, that there is no increase in complexity nor any improvement in the organism's functions; on the contrary, there is a defect. Sufferers from sickle-cell anemia experience impaired development, a lack of immunity to infection, chronic organ damage due to clogged veins, poor organ function and organ deficiencies, and lack of energy.

It is astonishing that this example of mutation, dealt with in the chapters on diseases of the blood in medical text books, should be seen as "beneficial." It is irrational for evolutionists to say that sufferers' resistance to malaria is a gift to them from evolution, for which reason the mutation in question is a favorable one. That claim is just as illogical as telling a blind man he has an advantage because he cannot be blinded by the sun.

Bacterial resistance to antibiotics:

Another example of evolutionists' "beneficial mutations" is the resistance of bacteria to antibiotics. Like all the other examples, this one, too, is a deception.

It is no secret that bacteria gradually develop a resistance to antibiotics over time. What happens is this: Most bacteria subjected to an antibiotic die, but some remain unaffected by it, and multiplying rapidly they come to comprise the entire population. In this way, the entire population comes to be immune to the antibiotic.

Evolutionists, however, claim that bacteria evolve according to the conditions in which they find themselves. The truth is, however, rather different. The Israeli biophysicist Professor Lee Spetner is one of the figures who have carried out the most detailed studies in this

area. Professor Spetner explains how this resistance comes about by means of two separate mechanisms, neither of which makes any contribution to evolution. The two mechanisms in question are:

1) The transmission of already existing immunity genes in the bacteria and

2) The building of resistance as a result of losing genetic data because of mutation.

The first mechanism is no evidence for evolution:

In a 2001 article Professor Spetner describes the first mechanism in this way:

> Some microorganisms are endowed with genes that grant resistance to these antibiotics. This resistance can take the form of degrading the antibiotic molecule or of ejecting it from the cell... [T]he organisms having these genes can transfer them to other bacteria making them resistant as well. Although the resistance mechanisms are specific to a particular antibiotic, most pathogenic bacteria have... succeeded in accumulating several sets of genes granting them resistance to a variety of antibiotics.[12]

This is no proof of evolution, as Professor Spetner describes:

> The acquisition of antibiotic resistance in this manner... is not the kind that can serve as a prototype for the mutations needed to account for Evolution… The genetic

Right; Bacterial DNA. Bacteria that suffer a loss of genetic information as a result of mutation become resistant to antibiotics. Yet, that mutation does not add any information to or develop the DNA. For that reason, it is no proof of evolution.

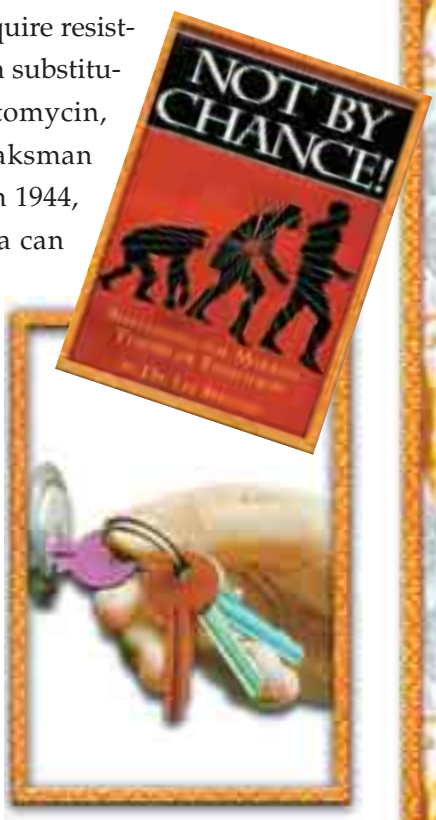
changes that could illustrate the theory must not only add information to the bacterium's genome, they must add new information to the biocosm. The horizontal transfer of genes only spreads around genes that are already in some species.[13]

In other words, there is no evolution here because no new genetic information appears. All that happens is that genetic information that already exists is transferred among bacteria.

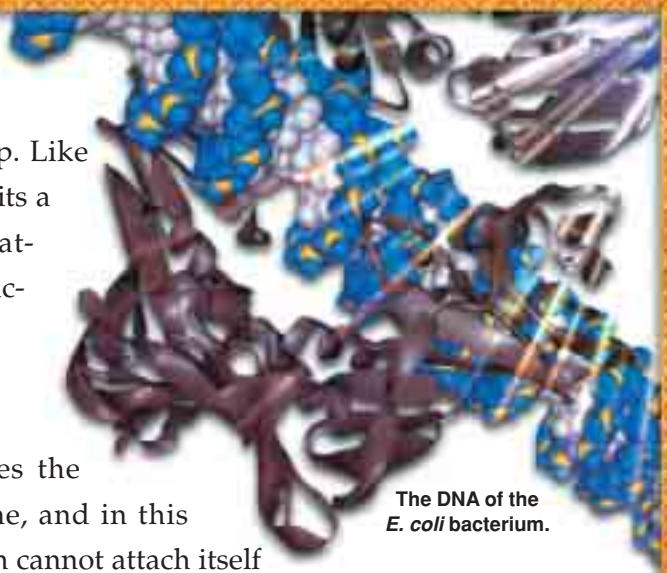
The second mechanism is no evidence for evolution:

The second form of immunity, that resulting from mutation, is also no evidence for evolution. Professor Spetner states:

... A microorganism can sometimes acquire resistance to an antibiotic through a random substitution of a single nucleotide... Streptomycin, which was discovered by Selman Waksman and Albert Schatz and first reported in 1944, is an antibiotic against which bacteria can acquire resistance in this way. But although the mutation they undergo in the process is beneficial to the microorganism in the presence of streptomycin, it cannot serve as a prototype for the kind of mutations needed by NDT [Neo-Darwinian Theory]. The type of mutation that grants resistance to streptomycin is manifest in the ribosome and degrades its molecular match with the antibiotic molecule.[14]



In his book *Not By Chance*, Spetner compares this to the disturbance of the



The DNA of the *E. coli* bacterium.

key-lock relationship. Like a key that perfectly fits a lock, streptomycin attaches itself to the bacteria's ribosome, disabling it. Mutation, on the other hand, damages the form of the ribosome, and in this case the streptomycin cannot attach itself to the ribosome. Even if this is interpreted as "the bacteria's gaining immunity to streptomycin" the bacteria actually suffer a loss rather than a gain. Spetner continues:

> This change in the surface of the microorganism's ribosome prevents the streptomycin molecule from attaching and carrying out its antibiotic function. It turns out that this degradation is a loss of specificity and therefore a loss of information. The main point is that Evolution… cannot be achieved by mutations of this sort, no matter how many of them there are. **Evolution cannot be built by accumulating mutations that only degrade specificity.**[15]

In summary: A mutation impinging on the bacteria's ribosome can make the bacteria resistant to streptomycin. The reason for this, however, is that the mutation "deforms" the ribosome. In other words, no genetic information is added to the bacteria. On the contrary, the structure of the ribosome is damaged, and the bacteria are literally disabled. (It has, in fact, been established that the ribosomes of bacteria subjected to mutation are much less functional than those of normal bacteria.) Since this disability prevents the antibiotic, whose design allows it to attach itself to the ribosome, from latching on to it , "antibiotic resistance" develops.

In conclusion, there is no instance of a mutation that "improves genetic information," and the immunity mechanisms in bacteria do not represent evidence for the theory of evolution. Professor Spetner states that the mutations required by the theory of evolution have never been observed:

> The mutations needed for macroevolution have never been observed. No random mutations that could represent the mutations required by Neo-Darwinian Theory that have been examined on the molecular level have added any information. **The question I address is: Are the mutations that have been observed the kind the theory needs for support? The answer turns out to be NO!**[16]

Experiments on fruit flies:

As long as a mutation does not change the morphology—that is, the shape—of an organism, it cannot be the raw material of evolution. One of the living things in which morphological mutations have been most intensively studied is the fruit fly (*Drosophila melanogaster*). In one of the many mutations *Drosophila* was subjected to, the two-winged fruit fly developed a second pair of wings. Ever since 1978 this four-winged fruit fly has gained great popularity in textbooks and other evolutionist publications.

However, one point that evolutionist publications hardly ever mention is that the extra wings possess no flight muscles. These fruit flies are therefore deformed, since these wings represent a serious obstacle to flight. They also have difficulties in mating. They are unable to survive in the wild. In his important book *Icons of Evolution*, the American biologist Jonathan Wells studies the four-winged fruit fly, together with other classic Darwinist propaganda tools, and explains in great detail why this example does not constitute evidence for evolution.

The truth is that fruit flies constituted no proof of evolution during

In mutations caused in fruit flies, these insects have grown an extra pair of wings. However, what evolutionists are reluctant to make clear is that these extra wings have no flight muscles, and therefore represent a serious obstacle to the insect's flying at all. For that reason, the mutations in question have handicapped the insects, rather than improved them.

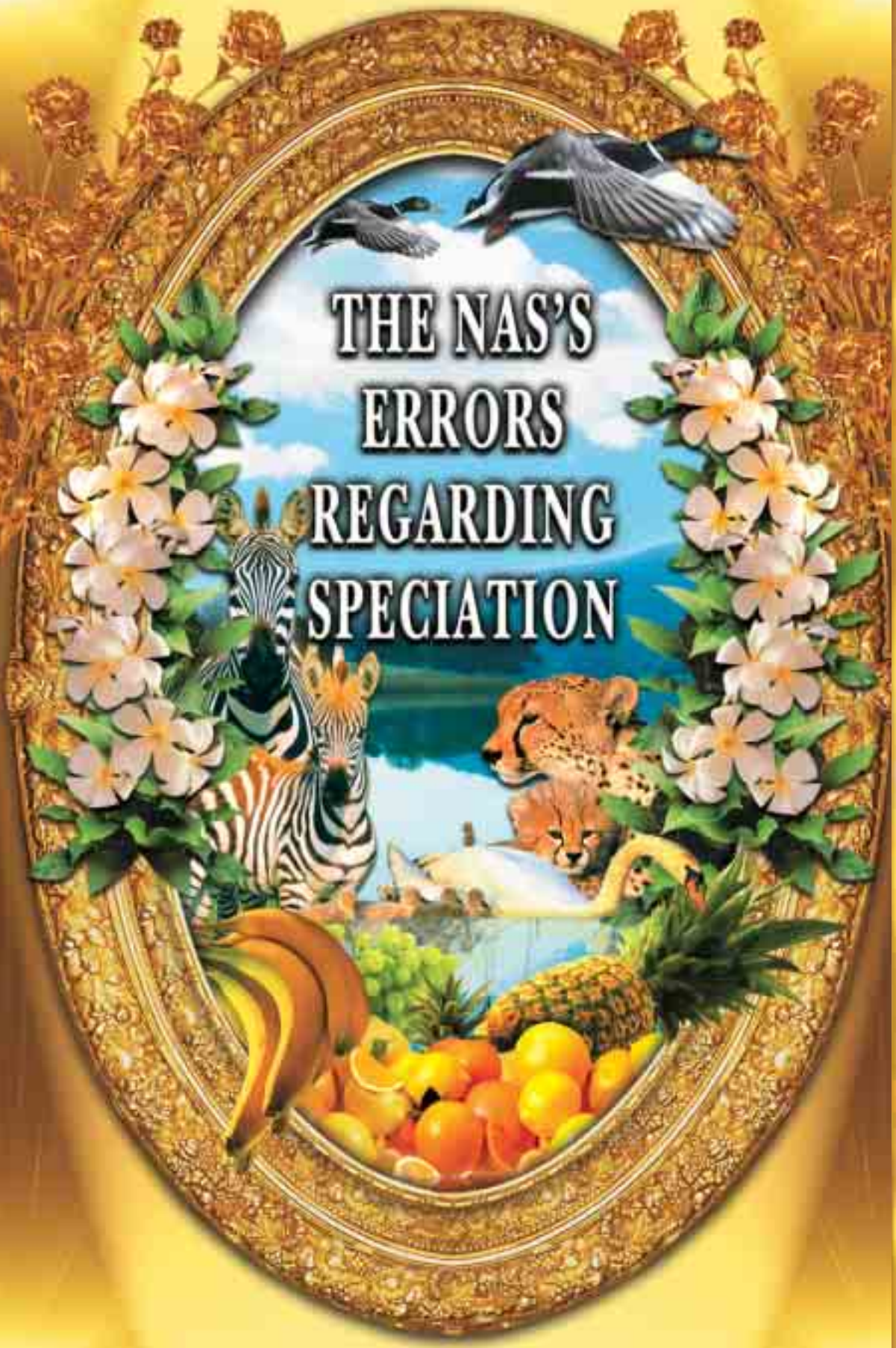
the 20th century, and that is accepted even by evolutionists. Gordon Taylor, former chief science advisor of the BBC, once said:

> It is a striking, but not much mentioned fact that, though geneticists have been breeding fruit-flies for sixty years or more in labs all around the world—flies which produce a new generation every eleven days—they have never yet seen the emergence of a new species or even a new enzyme.[17]

In his book *Adam and Evolution*, Professor Michael Pitman makes this comment:

> Morgan, Goldschmidt, Muller, and other geneticists have subjected generations of fruit flies to extreme conditions of heat, cold, light, dark, and treatment by chemicals and radiation. All sorts of mutations, practically all trivial or positively deleterious, have been produced. Man-made evolution? Not really: Few of the geneticists' monsters could have survived outside the bottles they were bred in. In practice mutants die, are sterile, or tend to revert to the wild type.[18]

In conclusion, neither fruit flies, nor bacterial resistance to antibiotics, nor sickle-cell anemia constitutes evidence of evolution. Therefore, evolutionists' claims that mutations are the cause of evolution do not rest on scientific evidence.


THE NAS'S
ERRORS
REGARDING
SPECIATION

Science and Creationism also deals with speciation, another of the classic errors of the evolutionists (*Science and Creationism*, p. 10). According to this booklet, "Scientists also have gained an understanding of the processes by which new species originate." In this view, living things exposed to geographic isolation—in other words separated from one another by geographical borders—become increasingly different from the other members of the group they have split away from, as a result of mutation, natural selection, and other processes. The result is that new species eventually emerge. Or so the NAS claims. However, the fact is that the process referred to here leads not to the emergence of new species, but rather to variation—in other words to different forms within a single species. What is misleading here is that the evolutionists use the concept of "species"—which is in any case subject to debate—in a manner to suit their theory.

Different experts in various areas of biology offer differing definitions of "species." The biologist John Endler makes the following comment about the chaos these various definitions have caused:

> Species are "tools that are fashioned for characterizing organic diversity" (Lewin, 1979). Just as there are a variety of chisels made for different purposes, different species concepts are best for different purposes; and just as it is inadvisable to use a carving chisel to cut a mortise, problems arise when one species concept is used when it is in-

appropriate. Confusion and controversy have often resulted because different people working with different groups of organisms mean different things by "species."[1]

Professor Ali Demirsoy, a prominent proponent of Darwinism in Turkey, expresses this fact in these terms:

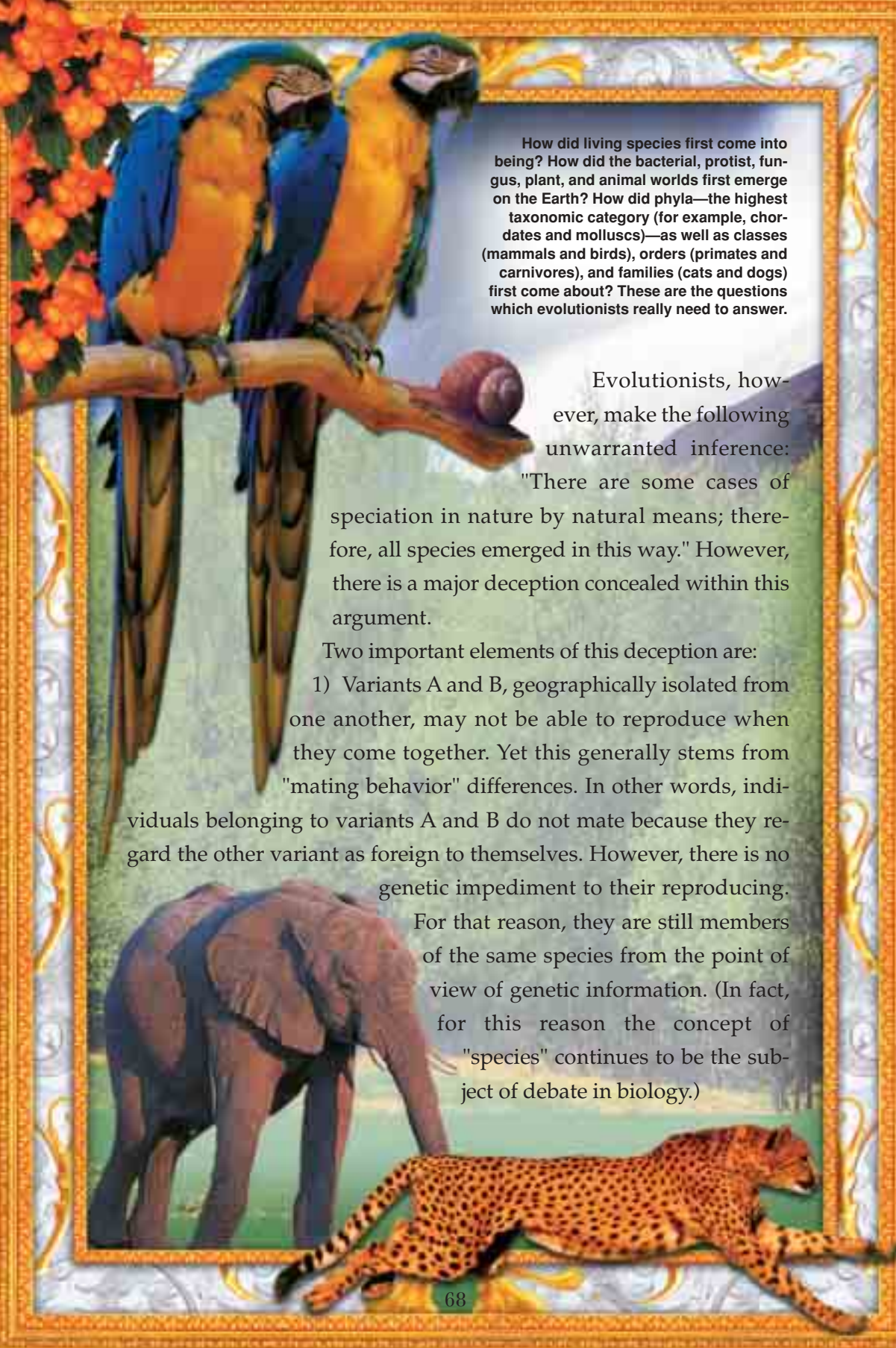
The question of along which lines the species, taken as the basic unit in the classification of animals and plants, should be distinguished from other species, in other words the definition of "species," is one of the hardest questions for biology to answer. To give a definition which applies to all animal and plant groups appears impossible in the present state of our knowledge.[2]

The word species generally brings to mind kinds such as dogs, horses, spiders, dolphins, and apples. The theory of evolution's claims regarding the "origin of species" bring to mind the origin of these life forms. Biologists, however, define "species" in a different way. According to modern biology, a living species is a population consisting of individuals which can mate and reproduce amongst themselves. This definition separates groups of living things that we think of as single species in daily life, into many more species. For instance, some 34,000 species of spider have been described.[3]

Some 34,000 species of spider have been identified.

In order to understand the deception in evolutionary theory with regard to speciation, "geographic isolation" first needs to be clarified. In every living species there are differences stemming from genetic variation. If a natural obstacle such as a mountain range, a river, or the sea comes between two populations belonging to a given species, and the populations thus become "isolated" from one another, then in all probability different variants will begin to dominate the two separated groups.[4] For instance, variant A, a dark-colored and long-haired variation, might come to dominate one group, while variant B, a shorter-haired and lighter-colored variation, might become predominant in the other. The more the two populations are separated from one another, the more the two variants become distinct. Cases of variation like these, with distinguishing morphological differences among subgroups of the same species, are known as "subspecies."

Here the speciation claim enters the picture. Sometimes it happens that when variants A and B, after having split away from each other due to geographical isolation, are brought back together in some way but are unable to reproduce with each other. Since they are unable to reproduce, they cease being subspecies, according to the modern biological definition of "species," and become separate species. This is known as "speciation."



How did living species first come into being? How did the bacterial, protist, fungus, plant, and animal worlds first emerge on the Earth? How did phyla—the highest taxonomic category (for example, chordates and molluscs)—as well as classes (mammals and birds), orders (primates and carnivores), and families (cats and dogs) first come about? These are the questions which evolutionists really need to answer.

Evolutionists, however, make the following unwarranted inference: "There are some cases of speciation in nature by natural means; therefore, all species emerged in this way." However, there is a major deception concealed within this argument.

Two important elements of this deception are:

1) Variants A and B, geographically isolated from one another, may not be able to reproduce when they come together. Yet this generally stems from "mating behavior" differences. In other words, individuals belonging to variants A and B do not mate because they regard the other variant as foreign to themselves. However, there is no genetic impediment to their reproducing. For that reason, they are still members of the same species from the point of view of genetic information. (In fact, for this reason the concept of "species" continues to be the subject of debate in biology.)

2) The really important point is that the "speciation" in question is not an increase in genetic information, but on the contrary stems from a loss of such information. The reason for the differentiation is not that new genetic information has been added to one or other of the variants. There is no such addition. For instance, neither of the variants acquires a new protein, enzyme, or organ. There is no "development" here. On the contrary, instead of a population which had previously harbored different sets of genetic information (in our example, a population possessing both long and short hair, as well as both light and dark colors), now there are two populations that are both impoverished from the point of view of genetic information.

For this reason, nothing about speciation supports the theory of evolution. The theory of evolution claims that living species evolved from one another, from the simpler to the more complex, completely by chance. For the theory to be taken seriously, therefore, it needs to posit a mechanism for increasing genetic information. It needs to be able to explain how living things without eyes, ears, hearts, lungs, wings, feet, and other organs and systems came to acquire them, and where the genetic information describing such systems and organs came from. A mechanism that divides an already-existing species into two groups, each of which undergoes a loss of genetic information, clearly has nothing to do with this.

This is in fact accepted by evolutionists. For this reason, they define variations within a species and instances of speciation by division of a population into two parts as "microevolution." Microevolution is used in the sense of variations occurring within an already existing species. Yet the inclusion of the term "evolution" in this description is a deliberate deception. There is no evolutionary process here at all, not even a "micro" one. This process merely distributes genetic information that already exists within the genetic pool among a different combination of individuals.

The questions that need to be answered are these: How did the living categories first come into being? How did the kingdoms of the Monera (bacteria), Protista (amoebas), Fungi (mushrooms), Plantae, and Animalia come into being? How did the higher taxonomical categories of families (cats and dogs), orders (carnivores and primates), classes (birds and mammals), and phyla (chordates, arthropods, and molluscs) first come into being? These are the issues that evolutionists need to be able to explain.

Evolutionists describe their theories concerning the origin of these basic categories as "macroevolution." It is actually macroevolution which is intended when the theory of evolution is referred to. That is because the genetic variations known as microevolution are an observed biological phenomenon accepted by everyone, but one which has nothing to do with evolution itself (in spite of the name), as we have seen above. As far as the claim of macroevolution is concerned, there is no evidence for it at all, either in observational biology or in the fossil record.

There is an absolutely essential point to be made here. Those with insufficient knowledge in this area may be deceived into thinking that "Since microevolution takes place in a very short space of time, macroevolution could also occur given tens of millions of years." Some evolutionists do indeed make this mistake, or else attempt to use this

error to make others believe in the theory of evolution. This is the form that all of Charles Darwin's "proofs of evolution" in *The Origin of Species* take. The examples put forward by subsequent evolutionists are all along the same lines, as well. In all of these examples, the genetic variation known to evolutionists as microevolution is used as proof of the theory they describe as macroevolution.

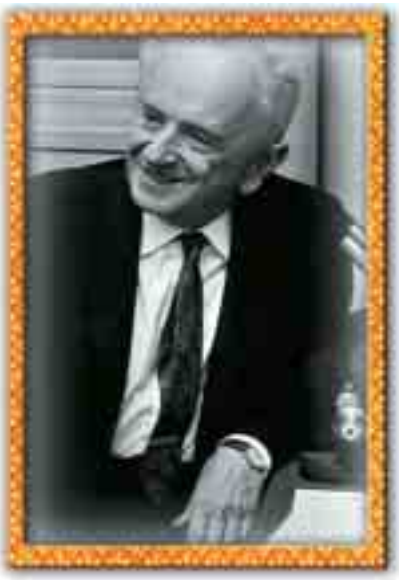
Let us give an example to illustrate the error in this reasoning. What would you say if someone proposed to you the following argument? "A bullet fired into the air from a pistol travels at 400 km (250 miles) an hour. It will therefore shortly leave the Earth's atmosphere and reach the moon, and in the weeks that follow will eventually arrive at the planet Mars."

If someone made such a claim to you, you would immediately realize that it was a simple deception. The person making the claim is expressing only a very narrow observation (about the speed of the bullet leaving the pistol) and is concealing two basic facts, gravity and friction, which restrict the progress of the bullet. All evolutionists' attempts to derive macroevolution from microevolution employ exactly the same method.

The upshot of this micro/macro evolution debate and evolutionists' "speciation" fairytales is this: Living things emerged on the Earth as "kinds" possessing structures that differed from one another. (The fossil record demonstrates this.) Within these kinds, variants and subspecies may appear thanks to the richness of their genetic pools. For instance, the "rabbit" type contains white-haired and grey-haired, and long-eared and short-eared, variants within itself, and these have spread according to the prevailing natural conditions. However, kinds can never turn into each other. There is no natural mechanism that can design new kinds, or that can form new organs, systems, or body plans within a type. Each kind was created with its own peculiar structure, and since God has created them all with a rich variation potential, every kind produces a rich, but restricted, range of variation.

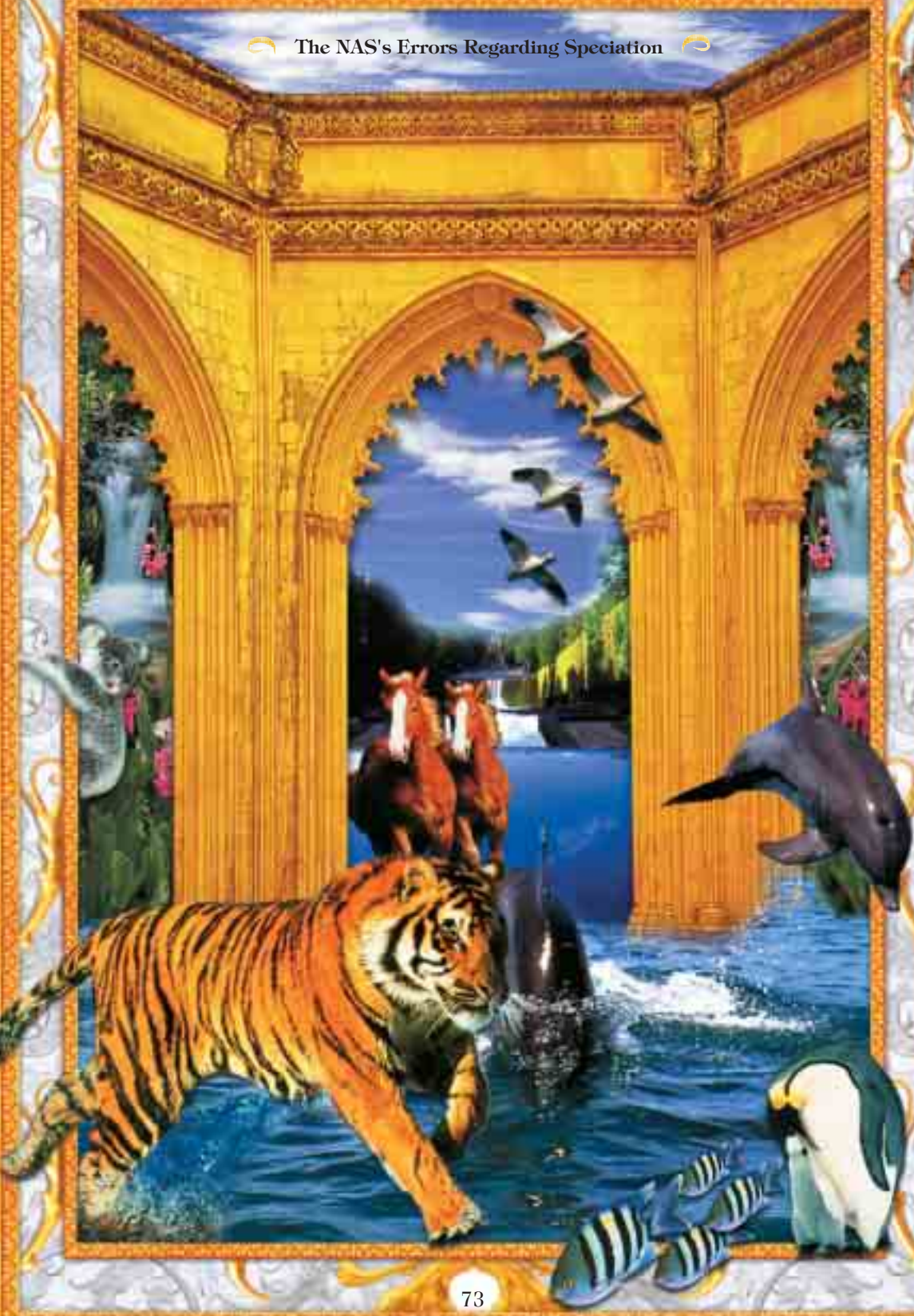
Evolutionists' Confessions About Speciation

Apart from "amateur" evolutionists who have only a superficial knowledge of the subject and such dogmatic evolutionists as the members of the National Academy of Sciences, almost all Darwinists are very well aware of the fundamental problem: to account for the origin of living kinds and the diversity of life. As Theodosius Dobzhansky, one of the architects of neo-Darwinism, wrote in the introduction to his *Genetics and the Origin of Species*, the main problem facing evolution is the variety of life.[5]



Theodosius Dobzhansky

This is the subject that Charles Darwin and his followers need to il-



luminate. In his book *The Origin of Species*, Darwin offers no concrete evidence, only speculation. One letter in *The Life and Letters of Charles Darwin*, published by his son Francis Darwin, admits the truth of this:

> When we descend to details, we can prove that no one species has changed.[6]

Darwin hoped that with the passage of time and advances in scientific research, an answer to the question would be found and speciation would be proved. On the contrary, however, scientific discoveries have disproved Darwin. Despite the best efforts of evolutionists, over the ensuing 150 years or so the idea of speciation by evolutionary mechanisms has remained a claim devoid of any evidence or foundation.

Richard Harrison

Some space will now be devoted to confessions made by evolutionists on this subject.

In an article published in the journal *Nature* in 2001, Professor Richard Harrison of Cornell University summed up the evolutionist past on this subject:

> …[N]atural communities harbour an enormous variety of species… But what of the origin of diversity? Much less has been written about how new species arise—although the process of speciation is central to evolutionary biology.[7]

It is actually no surprise that "very little" should have been written on this subject. Scientific discoveries have revealed that it is impossible for one species to turn into another and that change happens only within a species and within specific bounds. There has not so far been one single observable instance of speciation by evolutionary

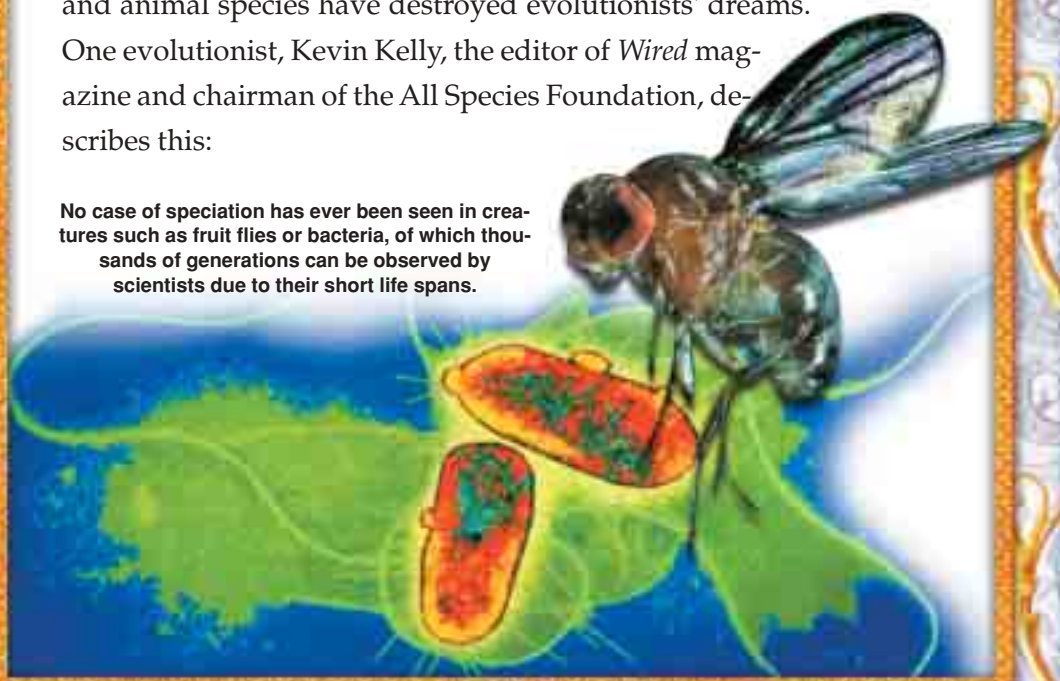
mechanisms.

In his book *Sudden Origins: Fossils, Genes and the Emergence of Species*, published in 2000, Jeffrey Schwartz, Professor of Anthropology at the University of Pittsburgh, stresses this fact:

> ... It was and still is the case that, with the exception of Dobzhansky's claim about a new species of fruit fly, the formation of a new species, by any mechanism, has never been observed.[8]

In the face of these facts, some evolutionists offer an explanation along the lines of "We cannot observe speciation by means of evolution because evolutionary mechanisms only act over very long periods of time. For that reason speciation cannot be observed in nature or in the laboratory." However, this, too, is nothing but a rationalization with no scientific basis. That is because no sign of speciation has been seen in fruit flies or bacteria, which have very short life spans, thus making it possible for a single scientist to observe thousands of generations. To date, countless experiments and studies on various microorganisms and animal species have destroyed evolutionists' dreams.

One evolutionist, Kevin Kelly, the editor of *Wired* magazine and chairman of the All Species Foundation, describes this:

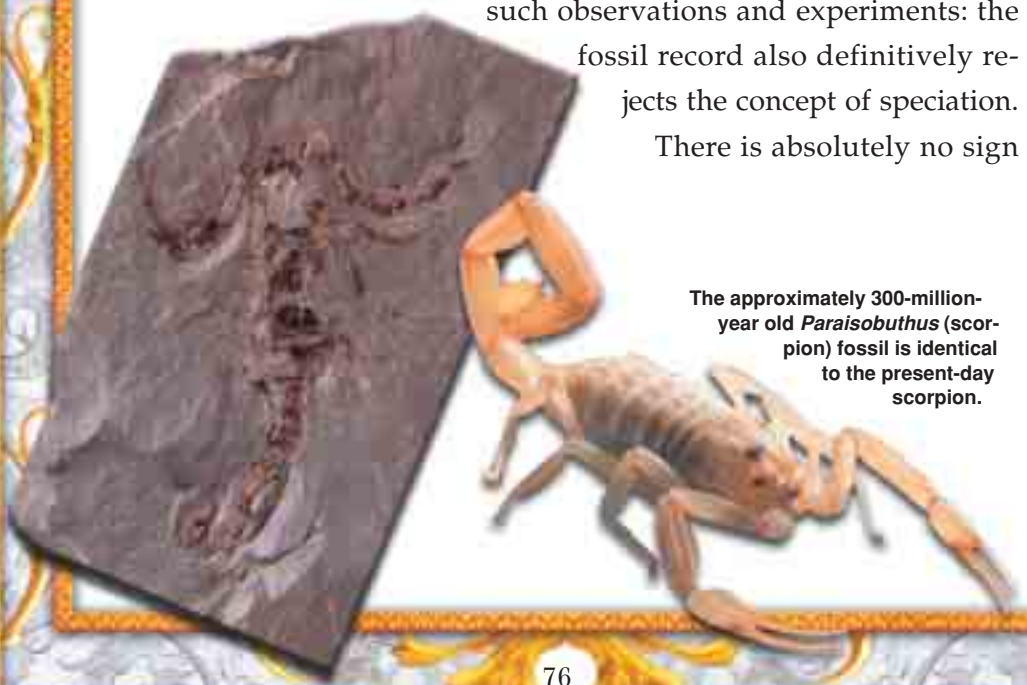


No case of speciation has ever been seen in creatures such as fruit flies or bacteria, of which thousands of generations can be observed by scientists due to their short life spans.

> Despite a close watch, we have witnessed no new species emerge in the wild in recorded history. Also, most remarkably, we have seen no new animal species emerge in domestic breeding. That includes no new species of fruitflies in hundreds of millions of generations in fruitfly studies, where both soft and harsh pressures have been deliberately applied to the fly populations to induce speciation… In the wild, in breeding, and in artificial life, we see the emergence of variation. But by the absence of greater change, we also clearly see that the limits of variation appear to be narrowly bounded, and often bounded within species.[9]

In order to demonstrate speciation, fruit flies have been bred for the last 70 years or so. These have constantly been exposed to mutations, yet no evolutionary change has been experienced, and no form of speciation encountered. Fruit flies have remained fruit flies.[10] In the same way, experiments and studies on the bacterium *Escherichia coli* down the years have revealed no new bacteria, much less multicellular organisms. *E. coli* have remained *E. coli*.[11]

However, the difficulties facing evolutionists are not restricted to such observations and experiments: the fossil record also definitively rejects the concept of speciation. There is absolutely no sign



The approximately 300-million-year old *Paraisobuthus* (scorpion) fossil is identical to the present-day scorpion.

in the record of the countless intermediate species that should have once lived according to Darwinism. It has now been acknowledged that Darwin's claim that these fossils would be found in the future is definitely incorrect. Evolutionists now offer the excuse that "speciation is so rapid that it cannot be seen in the fossil record" or, to put it more accurately, they attempt to console themselves with that thought.

In brief, subjects such as the origin of species, the emergence of species, and the variety of life cannot be accounted for by natural processes and random effects as maintained by the theory of evolution. Moreover, scientific discoveries prove that Darwinism is an unscientific and unrealistic theory. A great many scientists today are aware of this. Yet, out of a fear of being excluded from the scientific community, very few biologists openly express such views. One of those

Kevin Kelly and his book *Out of Control: The New Biology of Machines, Social Systems, and the Economic World.*

who do is the well-known Professor Lynn Margulis of the University of Massachusetts. Margulis states that Darwinism's claims on this subject are "completely mistaken." Margulis's views were also cited in Kevin Kelly's book, *Out of Control: The New Biology of Machines, Social Systems and the Economic World:*

"It is totally wrong. It's wrong like infectious medicine was wrong before Pasteur. It's wrong like phrenology is wrong. Every major tenet of it is wrong," said the outspoken biologist Lynn Margulis about her latest target: the dogma of Darwinian evolution. [With her theses], Margulis was . . . denouncing the modern framework of the century-old theory of Darwinism, which holds that new species build up from an unbroken line of gradual, independent, random variations. Margulis is not alone in challenging the stronghold of Darwinian theory, but few have been so blunt.[12]

David Tilman, of the Department of Ecology, Evolution and Behavior at the University of Minnesota, summed the matter up most appropriately in an article published in *Nature* on May 11, 2000: "The existence of so great a diversity of species on Earth remains a mystery."[13]

The Myth of the Evolving Finches

Science and Creationism says "A particularly compelling example of speciation involves the 13 species of finches studied by Darwin on the Galápagos Islands, now known as Darwin's finches." (*Science and Creationism*, p. 10) The fact is, however, that Darwin's finches are an instance not of speciation, but of variation.

During his trip on the *Beagle*, Darwin studied different finch species on the Galápagos Islands, later attributing the differences in beak size and feeding habits amongst these birds to evolution. Thirteen species live on the Galápagos Islands themselves and one species on Cocos Island, some 600 kilometers to the northeast. Although these birds are classified into 14 different species, they closely resemble one another, possessing similar body shapes, colors, and habits. In *Science and Creationism*, it is suggested that these birds evolved from a single species that came from South America. Ever since Darwin, evolutionists have been portraying these birds as an example of evolution by means of natural selection and the best-known proof of evolution. This chapter will explain that the different species of finch do not represent evidence of evolution, and show how evolutionists attempt to portray them as such by misinterpreting the facts.

Why Finches?

Darwin wrote in his *Origin of Species* that the emergence of new species by means of natural selection is a very slow process, which is why it cannot be observed, but only inferred. This, however, was not acceptable to the developing standards of modern science. In order to maintain their claims that the theory of

14 different species of finch.

evolution is actually scientific, Neo-Darwinists began looking for new "proofs." At this point, the story of the Galápagos finches appeared as a savior.

These birds thus became the focus of wide-ranging research. A number of evolutionists made statements based on their own observations. In an article in the April 1953 edition of *Scientific American* magazine, the ornithologist David Lack claimed that the evolution of the birds on the Galápagos had taken place in the recent past, and that this could even be seen as proof of differentiation between species.[14] Another evolutionist, Peter Grant, suggested that the evolution of the Galápagos finches was still going on.[15]

The names of Peter Grant and his wife Rosemary Grant can be found in most articles and writings about the finches in question. In

fact, the claims made about the finches in *Science and Creationism* are actually based on the Grants' work. These two researchers first went to the Galápagos Islands in 1973, with the aim of observing the effects of evolution on the finches, and carried out detailed studies and observations in the following years. They are thus remembered as experts on Darwin's finches.[16]

Peter and Rosemary Grant's Errors

Peter Grant and his wife, both from the Department of Ecology and Evolutionary Biology at Princeton University, studied individual members of the medium ground finch species on the Galápagos for years, and regularly monitored some 20,000 finches across several generations. In addition, the Grants and their team constantly measured the amount of rainfall on the islands and studied the effects of different climates on birds.

At this point we need to make a brief mention of the climatic conditions on the Galápagos Islands. Generally speaking, the islands enjoy a hot and rainy climate from January to May; on some islands, a cooler and drier climate prevails. Total rainfall levels during the warm and rainy season vary widely from year to year. Furthermore, atmospheric events known as "El Niño," which occur at irregular intervals and various intensities every two to 11 years, alter the climatic balances. During times of El Niño, an excessive amount of rain falls on the Galápagos, while the years which follow are generally dry and rainless.

The amount of rain is of vital importance for the finches, which feed on seeds. In years when rain is plentiful, the finches can easily find the seeds they need to

grow and reproduce. In years of drought, however, the number of seeds produced by plants is limited and may not be enough; as a result some finches die of starvation.

Grant and his colleagues measured the rainfall on Daphne Major, one of the Galápagos, as normal in 1976, but as only one-fifth of that level in 1977. In the period of drought which began in the middle of 1976 and lasted until the rain began again in January 1978, they observed a severe drop in the amount of seeds on the island and noticed that a number of ground finches had disappeared—to such an extent, in fact, that the ground finch population fell by 15% over the preceding year. They assumed that most of the vanished birds had died, and that a few had migrated.

Grant and his team also recorded that those finches which survived after the drought had rather larger bodies and deeper beaks than normal. The average depth of ground finch beaks on the island—in other words, the distance between the top and bottom of the beak at the point where the beak joins the body—was approximately half a millimeter, or 5%, larger in 1977 compared to 1976. Taking this as their starting point, the researchers suggested those finches which fed solely on small seeds were weeded out, while those with beaks capable of breaking and opening larger and harder shells survived.

In an article in the journal *Scientific American* published in October 1991, Peter Grant declared that this research was direct proof of evolution. According to Grant, 20 selection events were sufficient to turn the medium ground finch into the large ground finch; if it is assumed that there is a drought every 10 years, then such a change could happen in as little as 200 years. He maintained that, with the addition of a margin of error, it might take 2,000 years, but that bearing, in mind the long time the birds had been on the island, even that figure might be too short. A greater period of time was required for natural selection to turn the medium ground finch into the cactus-eating finch.[17] Grant renewed his claims in subsequent articles, insisting that finches had verified Darwinism and proved that natural selection caused living things to evolve.[18]

A VIEW OF THE GALÁPAGOS ISLANDS

These statements were regarded as a salvation in evolutionist circles: the theory of evolution by natural selection, which had always failed in experiments and observations, was portrayed as having been proved. Grant's research was the theme of Jonathan Weiner's Pulitzer Prize–winning book *The Beak of the Finch.* With this book, Peter and Rosemary Grant were made the icons of Darwinism.

It is true that Professor Grant and his team put in a lot of work in the Galápagos Islands. Yet, for some reason their care and attention in the field were not reflected when it came to analyzing their results. They made a serious error by evaluating their discoveries not in the light of science, but in that of their evolutionist preconceptions.

Let us now consider the evolutionists' errors on this subject, especially those of Professor Grant and the National Academy of Sciences.

The Error of Extrapolating the Change in Finches' Beaks

As we have already made clear, El Niño affects the western regions of North and South America once every few years, and there is heavy rainfall in the Galápagos Islands at such times. This leads to luxurious plant growth and abundant seeds. Finches are thus easily able to obtain the seeds they need. Their numbers therefore increase during rainy periods.

Grant and his colleagues witnessed just such a situation in 1982-1983. With the rain there was an abundance of seeds, and the beak size in medium ground finches returned to its previous value to before the drought of 1977. This astonished evolutionists, who were expecting regular growth in beak size.

The explanation for the change in the average size of the Galápagos finches' beaks is this: in years of drought when seeds are

scarce birds with beaks slightly larger than the average are able to use these more powerful beaks to open the remaining hard and large seeds. Weak individuals and finches with small beaks die off since they are unable to adapt to the prevailing conditions. In this way, the average beak size goes up. During periods of heavy rain, when small and soft seeds are plentiful, the situation is reversed. Under these conditions, those finches with small beaks are able to adapt to the prevailing conditions, and their numbers rise. The average beak size thus returns to normal. Peter Grant and his student Lisle Gibbs actually accepted this in an article published in *Nature* magazine in 1987.[19]

In short, the findings show that there is no such thing as evolutionary change. Average beak size sometimes rises above a fixed value according to the seasons and sometimes falls—in other words, it fluctuates. As a result, there is no directional change.

Peter Grant realized this, and wrote, "the population, subjected to natural selection, is oscillating back and forth."[20] Some evolutionist researchers also state that natural selection had flipped.[21]

Danny Faulkner, a professor of as-

tronomy and physics from the University of South Carolina, says that this fluctuation in beak size is no evidence for evolution:

> And so if you have supposed microevolution one direction and then later it reverts right back to where it started from, that's not evolution, it can't be.[22]

Therefore, any increase or reduction in the size of finches' beaks depending on food resources proves nothing in regard to evolution. Evolutionists' belief that they have found proof of evolution in the oscillation in finch beak sizes is a purely ideological one.

Grant and his team analyzed thousands of ground finches *(Geospiza fortis)* from the 1970s until the 1990s and found no tendency towards either a net increase or reduction in beak size. Moreover, no new species or feature appeared, and there was no change in any specific direction. This is what the observations show. The duty of an objective scientist is to report these facts without distorting them or engaging in speculation. It is unacceptable to exaggerate this phenomenon or distort its meaning solely for the sake of producing evidence for evolution. Yet, Professor Grant made a totally contradictory analysis, claiming a phenomenon he did not observe—namely, that a species of finch could turn into another species in as little as from 200 to 2,000 years, and thus casting a shadow over his entire study. As the biologist Dr. Jonathan Wells puts it, this is "exaggerating the evidence."[23]

Jonathan Wells

Wells states that Darwinists frequently resort to such methods and cites examples of statements in *Science and Creationism*, saying:

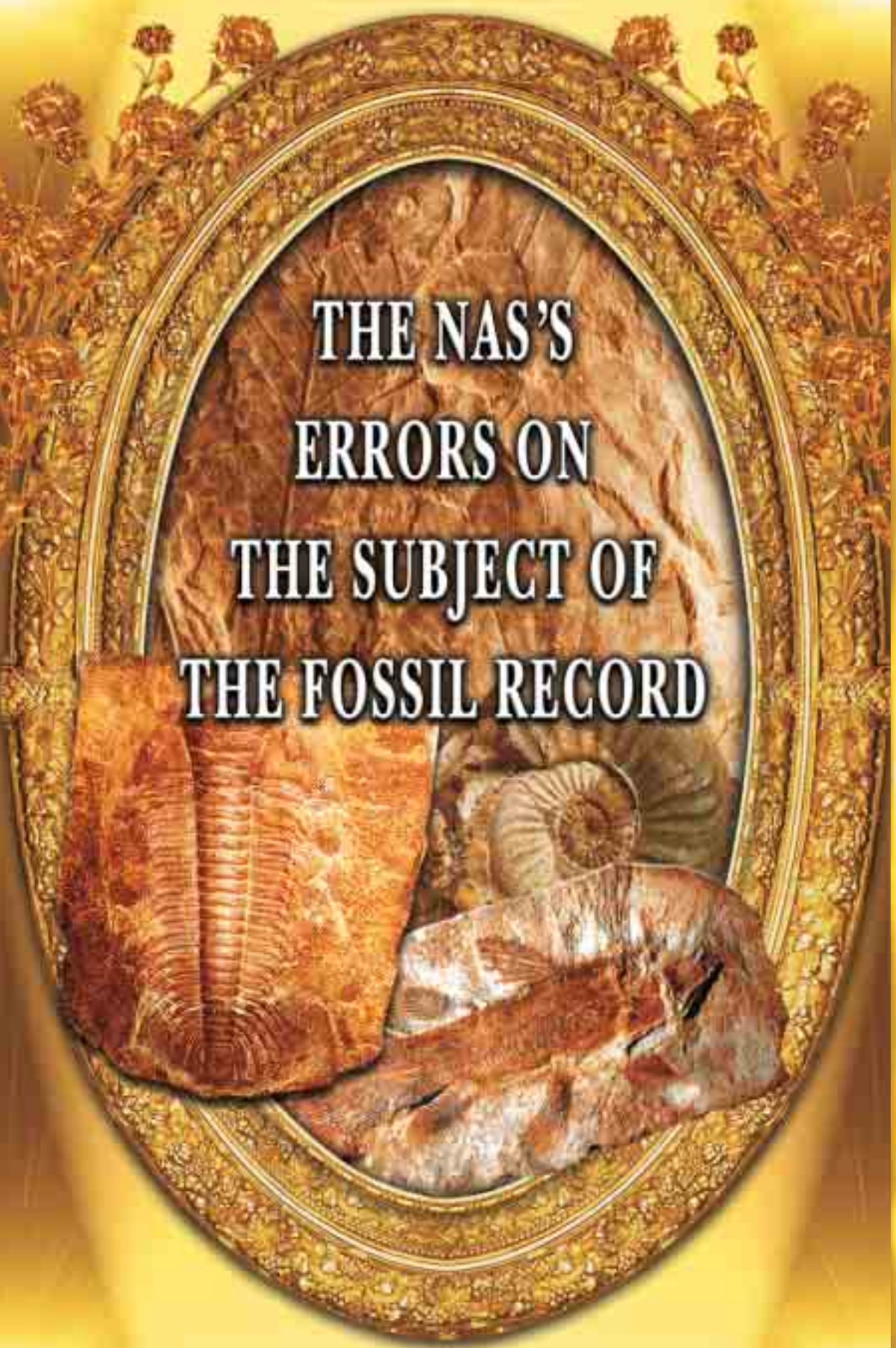
> A 1999 booklet published by the National Academy describes Darwin's finches as "a particularly compelling example" of the origin of species. The booklet goes on to explain how the Grants and their colleagues showed "that a single year of drought on the islands can drive evolutionary changes in the finches," and that "if droughts occur about once every 10 years on the islands, a new species of finch might arise in only about 200 years."
>
> That's it. Rather than confuse the reader by mentioning that selection was reversed after the drought, producing no long-term evolutionary change, the booklet simply omits this awkward fact. Like a stock promoter who claims a stock might double in value in twenty years because it increased 5 percent in 1998, but doesn't mention that it decreased 5 percent in 1999, the booklet misleads the public by concealing a crucial part of the evidence.[24]

It is astonishing that an institution such as the National Academy of Sciences, which claims to be scientifically trustworthy, would perpetrate such a deception in order to provide evidence for evolution in finches and for natural selection in general. In this regard, professor Phillip Johnson of the University of California at Berkeley says the following in an article on the subject in the *Wall Street Journal:*

> When our leading scientists have to resort to the sort of distortion that would land a stock promoter in jail, you know they are in trouble.[25]

To sum up, this story of the Galápagos finches, which is claimed to be one of "the most impressive examples of evolution by natural selection," is in fact a clear case of deception. It is also one of hundreds of examples showing that evolutionists will resort to all kinds of unscientific methods.

THE NAS'S ERRORS ON THE SUBJECT OF THE FOSSIL RECORD



The National Academy of Sciences booklet suggests that the fossil record provides definitive proof of evolution, and even says, "So many intermediate forms have been discovered. . ." and refers to a "huge body of evidence." (*Science and Creationism*, p. 14) Yet, for some reason not a single example of an intermediate form is provided, even though the book let claims to present "the most important lines of evidence supporting evolution." (*Science and Creationism*, p. ix) A book making such a claim would be expected to detail the series of intermediate forms in question, and to respond to criticisms directed at the classic putative intermediate forms (such as *Archaeopteryx*). Yet, no such proof is given in the book, which merely attempts to convince its readers by means of vague words and abstract expressions.

The National Academy of Sciences' attempt to portray the theory of evolution as one for which there is so much evidence reminds one of a doctor who tells a moribund patient who is no longer capable of any movement at all that "You are so healthy, you could get up and go for a run if you wanted," just to keep his spirits up. It seems that the members of the National Academy of Sciences think that a self-confident tone would be enough to save their theory. Yet, what matters is not the tone or style employed, but rather concrete scientific evidence. It is an incontrovertible fact that scientific evidence testifies against Darwinism. Those evolutionists

who have not lost their ability to evaluate the scientific evidence objectively accept that the fossil evidence does indeed speak against the theory of evolution. Indeed, this is a self-evident fact.

For example, Henry Gee, the editor of the journal *Nature*, says in his book *In Search of Deep Time* that "mountains of evidence" supporting the theory of evolution have not been discovered in the fossil record, and that, on the contrary, the evidence which does exist is evaluated by evolutionists according to their own preconceptions:

> Many of the assumptions we make about evolution, especially concerning the history of life as understood from the fossil record, are, however baseless.
>
> The reason for this lies with the fact of the scale of geological time that scientists are dealing with, which is so vast that it defies narrative. Fossils, such as the fossil creatures we hail as our ancestors, constitute primary evidence for the history of life, but each fossil is an infinitesimal dot, lost in a fathomless sea of time, whose relationship with other fossils and organisms living in the present day is obscure. Any story we tell against the compass of geological time that links these fossils in sequences of cause and effect—or ancestry and descent—is therefore only ours to make. We *invent* these stories, after the fact, to justify the history of life according to our own prejudices. [1]

Looked at without evolutionist prejudice, it is clear that the fossil record conflicts with the theory of evolution on many points. Some of these areas are:

1. Species and higher categories emerge in a very sudden way in the fossil record, fully formed in their distinct body plans. **The intermediate forms** claimed by the National Academy of Sciences are nowhere to be found. It has eventually been made clear that those fossils portrayed as transitional forms by evolutionists have been inter-

A bony fish fossil dating back some 210 million years.

A frog fossil approximately 53 to 33.7 million years old.

Left; A fossil crab approximately 55 to 35 million years old.

An echinoderm (starfish) fossil dating back some 135 million years.

Below; A spider fossil, some 355 to 295 million years old.

THE FACT THAT LIVING SPECIES AND FOSSILS HUNDREDS OF MILLIONS OF YEARS OLD ARE TOTALLY SIMILAR IS VERY CLEAR EVIDENCE AGAINST EVOLUTION.

Right; An approximately 300-million-year-old *trionyx* (tortoise) fossil.

preted in a biased manner by scientists. None of the few fossils portrayed as intermediate forms has ever received wide acceptance, not even amongst evolutionists. The truth is that the evidence for these alleged transitional forms (species or genera such as *Archaeopteryx, Ambulocetus* or *Australopithecus*) rests on evolutionists' comparisons

During the Cambrian Period, the Earth was suddenly filled with nearly 100 phyla. The fact that all these living things, which all possessed their own particular and unique physical structures, emerged without a common ancestor is clear proof that they were created.

of certain anatomical features of the extinct creatures in question with other species. Yet these comparisons are weak and superficial. Furthermore, the great differences between these so-called transitional forms and their so-called closest evolutionary relatives (between *Archaeopteryx* and theropod dinosaurs, for instance, or *Ambulocetus* and ancient whales, or *Australopithecus* and *Homo erectus*) show that these are not transitional forms representing the gradual changes expected by Darwin. The more the fossil record grows, the more these huge gaps can be seen to be real and permanent.

2. The second area of conflict between the theory of evolution and the fossil record is that of **stasis.** It can be seen from the fossil record that there is no gradual change towards different physical forms, but rather a stability or lack of change.

3. The order of **geological succession** is also against the theory's expectations. The theory of evolution maintains that small evolutionary changes gradually accumulated. If this were true, we would expect that more primitive classes first experienced variation within themselves, which gradually led to different and more complex body plans. In other words, according to the theory of evolution, variation must come before differentiation. However, geological succession—that is, the fossils' positions in the geological strata—shows just the opposite: differentiation comes before variation. In the Cambrian Period, very different basic body plans appear all of a sudden, with no evolutionary ancestors lower down. Variations then follow these previously existing forms. The natural history of life is systematically from the top down, not from the bottom up, as Darwinist theory would have it.

Let us briefly examine this conflict between the theory of evolution and the fossil record.

The Ever-Missing Transitional Forms

Darwin imagined evolution to consist of gradual transitions from one species to another over long periods of time. There should therefore be an infinite number of intermediate links between species. Darwin stated as much in T*he Origin of Species*:

> ... The number of intermediate varieties, which have formerly existed on the earth, [must] be truly enormous. Why then is not every geological formation and every stratum full of such intermediate links? Geology assuredly does not reveal any such finely graduated organic chain; and this, perhaps, is the most obvious and gravest objection which can be urged against my theory. [2]

Again in *The Origin of Species*, Darwin stated that the sudden emergence of phyla with no evolutionary ancestors below them represented a serious difficulty:

> … There is another and allied difficulty, which is much more serious. I allude to the manner in which species belonging to several of the main divisions of the animal kingdom suddenly appear in the lowest known fossiliferous rocks.[3]

The serious difficulty referred to by Darwin in this passage continues to be a serious difficulty today. The evidence that he expected to show the evolution of one species from another is nowhere to be found. The fact that there are no transitional forms between species in the fossil record is so clear-cut that a great many evolutionists have been forced to admit it. A selection of these confessions follows:

Professor S.M. Stanley of Johns Hopkins University:

> The known fossil record is not, and never has been, in accord with gradualism. What is remarkable is that, through a variety of historical circumstances, even the history of opposition has been obscured. . . . 'The majority of palaeontologists felt their evidence simply contradicted Darwin's stress on minute, slow, and cumulative changes lead-

ing to species transformation.' . . . **their story has been suppressed.**[4]

Professor of Philosophy and Zoology Michael Ruse:

> One must acknowledge that there are many, many gaps in the fossil record... There is no reason to think that all or most of these gaps will be bridged.[5]

Anthropologist Ian Tattersall and palaeontologist Niles Eldredge of the American Museum of Natural History:

> The record jumps, and all the evidence shows that the record is real: the gaps we see reflect real events in life's history—not the artifact of a poor fossil record.[6]

Rudolf A. Raff, director of Indiana University's Molecular Biology Institute, and Indiana University researcher Thomas C. Kaufmann:

> The lack of ancestral or intermediate forms between fossil species is not a bizarre peculiarity of early metazoan history. Gaps are general and prevalent throughout the fossil record.[7]

Ernst Mayr, possibly the most prominent biologist of the twentieth century:

> Paleontologists had long been aware of a seeming contradiction between Darwin's postulate of gradualism . . . and the actual findings

> of paleontology. Following phyletic lines through time seemed to reveal only minimal gradual changes but no clear evidence for any change of a species into a different genus or for the gradual origin of an evolutionary novelty. Anything truly novel always seemed to appear quite abruptly in the fossil record.[8]

The way that the National Academy of Sciences ignores or else seeks to conceal from its readers the existence of Darwinism's fossil problem, to which Darwin drew attention 150 years ago and which is accepted by many modern-day evolutionists, ill-becomes an institution claiming scientific respectability. Some evolutionists who have no hesitations about admitting the dilemmas facing the theory of evolution, such as Stephen Jay Gould, accept that the fossil record is a **"persistent and nagging problem"**[9] for the theory of evolution, and the way that the National Academy of Sciences tries to ignore these findings naturally casts a long shadow over its scientific credibility.

Stasis in the Fossil Record

"Stasis" means lack of biological change, and that in turn means the absence of evolution. That is indeed the case, because in the fossil record a species exhibits no changes during its lengthy geological lifespan. It exhibits statis—in other words its form remains the same—from its very first appearance in the fossil record until its disappearance. Stephen Jay Gould first announced that the fossil record conflicted with the theory of evolution in the 1970s:

> The history of most fossil species includes two features particularly inconsistent with gradualism:
>
> 1. *Stasis*. Most species exhibit no directional change during their tenure on earth. They appear in the fossil record looking much the same as when they disappear; morphological change is usually limited and directionless.

2. *Sudden appearance*. In any local area, a species does not arise gradually by the steady transformation of its ancestors; it appears all at once and "fully formed."[10]

In the years that followed, Gould stated in other occasions, too, that he accepted the stasis observed in the fossil record. In an article in *Natural History* magazine in 1988, he wrote:

> [W]ell represented species are usually stable throughout their temporal range, or alter so little and in such superficial ways (usually in size alone), that an extrapolation of observed change into longer periods of geological time could not possibly yield the extensive modifications that mark general pathways of evolution in larger groups. Most of the time, when the evidence is best, nothing much happens to most species.[11]

As can be seen from these words, Gould admits that a great many species underwent no changes. In another article in the same magazine, published in 1993, he wrote:

> [S]tasis, or nonchange of most fossil species during their lengthy geological lifespans was tacitly acknowledged by all paleontologists, but almost never studied explicitly because prevailing theory

A 25-million-year-old termite fossil in amber.

Niles Eldredge

> treated stasis as uninteresting nonevidence for nonevolution . . . [T]he overwhelming prevalence of stasis became an embarrassing feature of the fossil record, but left ignored as a manifestation of nothing (that is, nonevolution).[12]

Ian Tattersall and Niles Eldredge, in their book *The Myths of Human Evolution*, described the contradiction between the fossil record and the assumptions of Darwinism, and stated that stasis was a fact:

> Paleontologists just were not seeing the expected changes in their fossils as they pursued them up through the rock record . . . That individual kinds of fossils remain recognizably the same throughout the length of their occurrence in the fossil record had been known to paleontologists long before Darwin published his *Origin*. Darwin himself, . . . prophesied that future generations of paleontologists would fill in these gaps by diligent search . . . One hundred and twenty years of paleontological research later, it has become abundantly clear that the fossil record will not confirm this part of Darwin's predictions. Nor is the problem a miserably poor record. The fossil record simply shows that this prediction is wrong.
>
> The observation that species are amazingly conservative and static entities throughout long periods of time has all the qualities of the emperor's new clothes; everyone knew it but preferred to ignore it. Paleontologists, faced with a recalcitrant record obstinately refusing to yield Darwin's predicted pattern, simply looked the other way.[13]

THE BAT: UNCHANGED FOR 50 MILLION YEARS

One of the living species that suddenly appear in the fossil record, proving that none of these species ever underwent any changes throughout the length of their occurrence in the fossil record, is the bat. The fact that the oldest fossil bats are identical to those of the present day shows that these creatures have come down unchanged to modern times. Even evolutionists admit in evolutionist sources that this fact represents a terrible quandary for their theory. The evolutionist scientist Jeff Hecht expresses this fact in these terms:

> [T]he origins of bats have been a puzzle. Even the earliest bat fossils, from about 50 million years ago, have wings that closely resemble those of modern bats.[1]

As we have seen, fossils totally undermine the claims of the theory of evolution. Had evolution really taken place, then we should have found a fossil which was in the process of turning into a bat. Yet, the bat is the same now as it was 50 million years ago. This is a major problem for the idea of bat evolution. The evolutionist scientist Jeff Hecht admits this:

> [I]t may be difficult to find an intermediate form that shows how bats evolved their wings.[2]

Evolutionists are well aware that the present-day fossil record is exceedingly rich. The NAS states the fact in its own booklet. Yet, no trace has been found of the imaginary creature assumed to have been the ancestor of the bat.

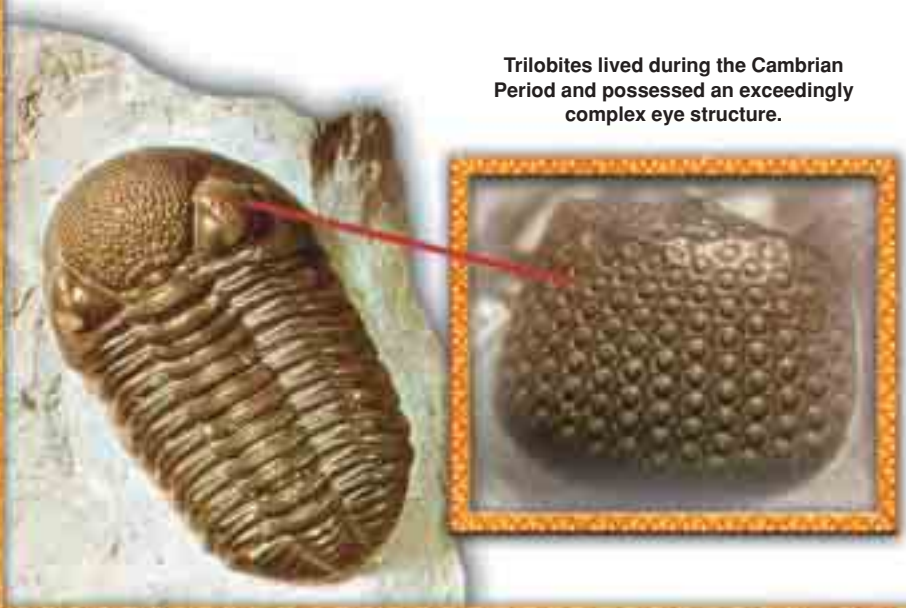
A bat fossil approximately 33.7 to 53 million years old.

1- Jeff Hecht, 'Branching Out', *New Scientist*, 10 October 1998, vol 160, issue 2155, p. 14
2- Jeff Hecht, 'Branching Out', *New Scientist*, 10 October 1998, vol 160, issue 2155, p. 14

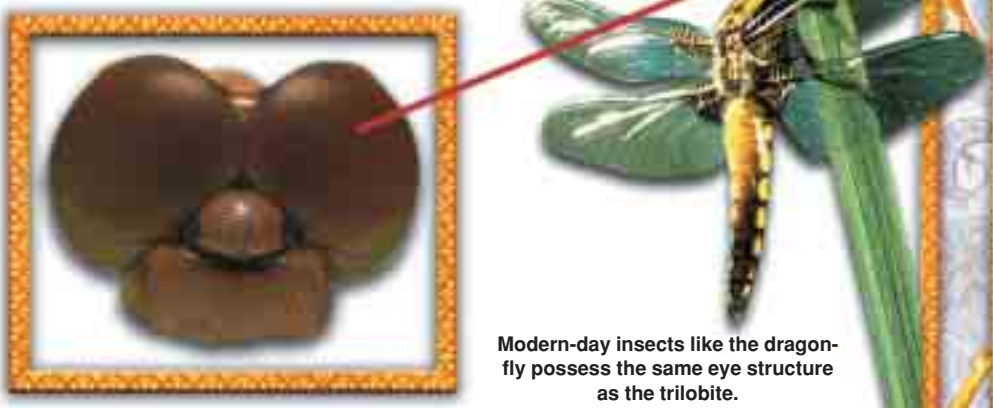
The NAS's Errors Regarding Geological Succession

According to the National Academy of Sciences, living species are ranged in the fossil record from the simplest to the most complex. In other words, those living species with the simplest forms are found in the lowest strata, and this complexity increases until the appearance of man. This is a Darwinist expectation and the dream of which evolutionists hope to find proof in the fossil record.

It first needs to be made clear that living species in the Earth's strata do not follow a progression from the simple to the complex. For instance, the trilobites, which lived in the Cambrian Period when the first animal phyla appear, possessed a rather complex eye structure. A trilobite eye consists of hundreds of tiny facets, each of which contains two lens layers. This eye structure is a marvel of design. David Raup, a professor of geology at Harvard, Rochester, and Chicago universities, says that, "the trilobites 450 million years ago used an optimal design which would require a well trained and imaginative



Trilobites lived during the Cambrian Period and possessed an exceedingly complex eye structure.



Modern-day insects like the dragonfly possess the same eye structure as the trilobite.

optical engineer to develop today." [14]

Another point which needs to be made clear about trilobites is that the 530-million-year-old compound eye system has come down unchanged to the present day, and that some insects, such as the bee or the dragonfly, today possess exactly that same structure.[15] This finding deals a mortal blow to the theory of evolution's claim that living things developed directly from the simple to the complex.

The fossils found in Cambrian strata belong to very different species, such as snails, trilobites, sponges, worms, star fishes, sea urchins, and sea lilies. A new discovery in 1999 even revealed the existence of two separate fish species, *Haikouichthys ercaicunensis* and *Myllokunmingia fengjiaoa*. Most of the living things in this stratum possessed advanced physiological structures and complex systems, such as the eye, the lung, and a circulatory system, which are no different from those of modern-day specimens. These structures are both very complex and very different from one another. The NAS's claim that life evolved from the primitive to the advanced is therefore very definitely untrue.

Professor Phillip Johnson of the University of California, Berkeley, one of the most important critics of Darwinism in the world, declares

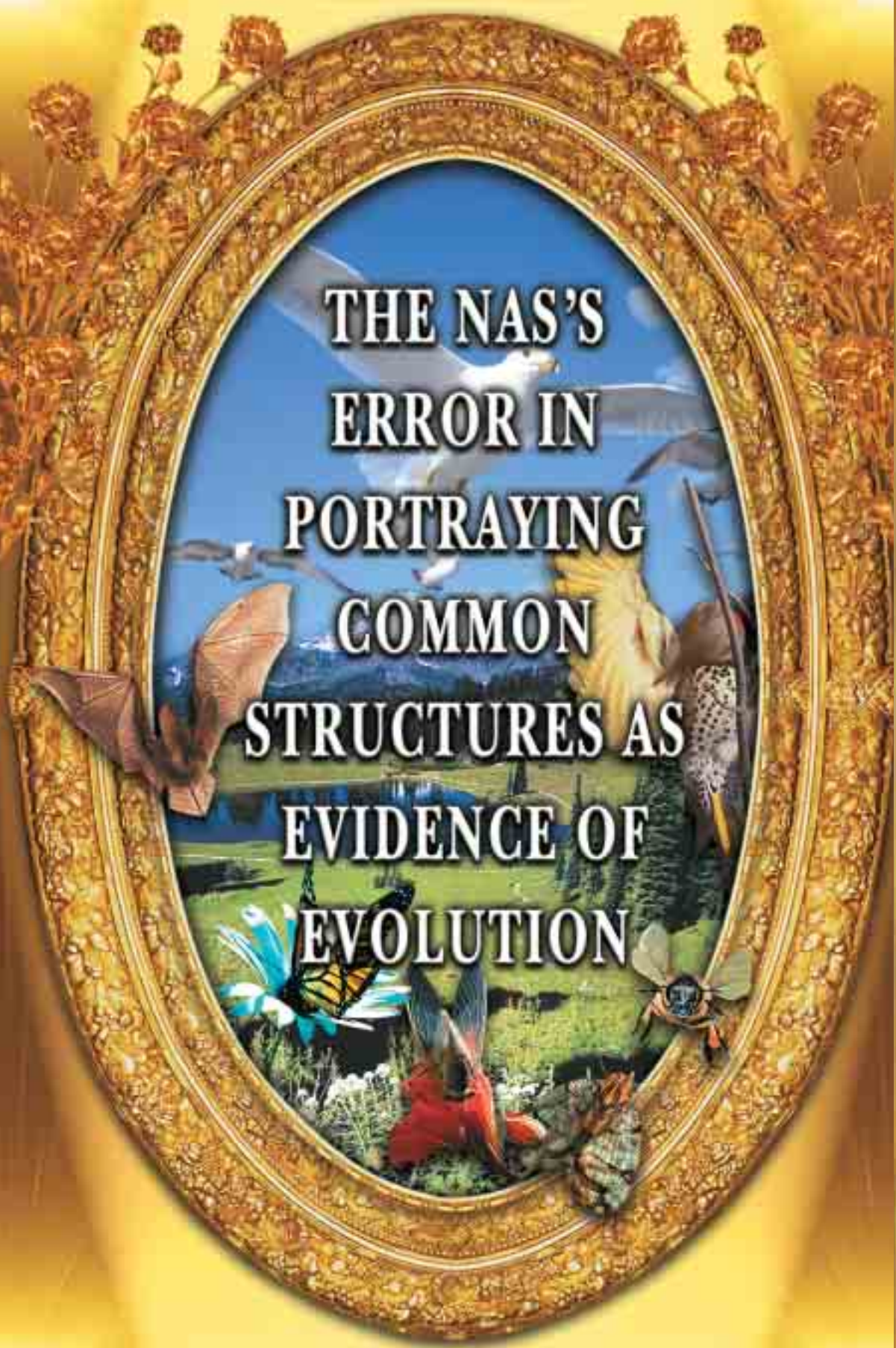
A new discovery in 1999 revealed two fish species that lived in the Cambrian Period.

that this fact revealed by paleontology openly conflicts with Darwinism:

> Darwinian theory predicts a "cone of increasing diversity," as the first living organism, or first animal species, gradually and continually diversified to create the higher levels of taxonomic order. The animal fossil record more resembles such a cone turned upside down, with the phyla present at the start and thereafter decreasing.[16]

Finally, it needs to be made clear that it is a mistake to portray living species' arrangement in geological strata as proof of the claim that species evolved from one another. In order to prove their claims, evolutionists need to be able to point to fossils belonging to transitional species, thus demonstrating an evolutionary transition between different species. However, as we have seen in the preceding pages, there is no sign of such intermediate forms. In conclusion, the NAS's "self confident" statements about the fossil record are actually hollow claims, devoid of proof and used solely for propaganda purposes.


A starfish dating back some 65 million years.
A 355 to 295-million-year-old shelled mollusc.
A 400-million-year-old brittle star fossil.
An approximately 300-million-year-old jellyfish.
Fossil ammonites some 203 million years of age.
A 203-million-year-old ammonite.


THE NAS'S
ERROR IN
PORTRAYING
COMMON
STRUCTURES AS
EVIDENCE OF
EVOLUTION

Another phenomenon that the National Academy of Sciences represents as proof of the theory of evolution is homology. Homologies are common structures possessed by different living things. The NAS has taken the similarities in the skeletons of human beings and such animals as mice and bats as an example and proposed that "they are best explained by common descent." (*Science and Creationism*, p. 14) The NAS repeats the claims made and examples cited in Darwin's *The Origin of Species*, but entirely ignores the discoveries made in the fields of anatomy and biology since Darwin's day, thus demonstrating that it has remained at the scientific level of 150 years ago.

Before moving on to the NAS's unscientific claims, let us first have a quick look at the concept of homology.

Darwin's Homology Error

In the chapter of *The Origin of Species* entitled "Mutual Affinities of Organic Beings: Morphology, Embryology, Rudimentary Organs," Darwin spoke of similar structures in species and suggested that this could only be accounted for by his theory of development from a common ancestor.

Although Darwin and the evolutionists who came after him maintained that the only explanation for common structures between living things is evolution from a common ancestor, most scientists before

Richard Milton's book *Shattering the Myths of Darwinism*

Darwin agreed that common structures were the work of a common design.

Darwinists of the past and present regard evolution from a common ancestor as the cause of homology; at the same time, they also portray homology as the strongest evidence for descent from a common ancestor. However, advances in such fields as anatomy, biochemistry, and microbiology over the last 50 years have shown that homology does not constitute evidence for the theory of evolution, and that descent from a common ancestor is not the cause of homology. In his book *Shattering the Myths of Darwinism*, the well-known science writer Richard Milton states that homology had been one of evolutionists' most important pieces of evidence, but that as science advanced over the course of the twentieth century, homology came to represent one of the most important difficulties facing Darwinism:

> In the past hundred years, biology has undergone successive revolutions—in embryology, in microbiology, in molecular biology, and in genetics, revolutions which have laid open on the laboratory bench the most minute detail of how plants and animals are constructed. If the Darwinian interpretation of homology is correct, then you would expect to find at the microscopic level the same homologies that are found at the macroscopic level. In fact that is not what has been found.[1]

This chapter examines the NAS's claims on the subject of homology and why it represents such a major problem for the theory of evolution. The questions that will be dealt with in more detail in the pages which follow are, in summary:

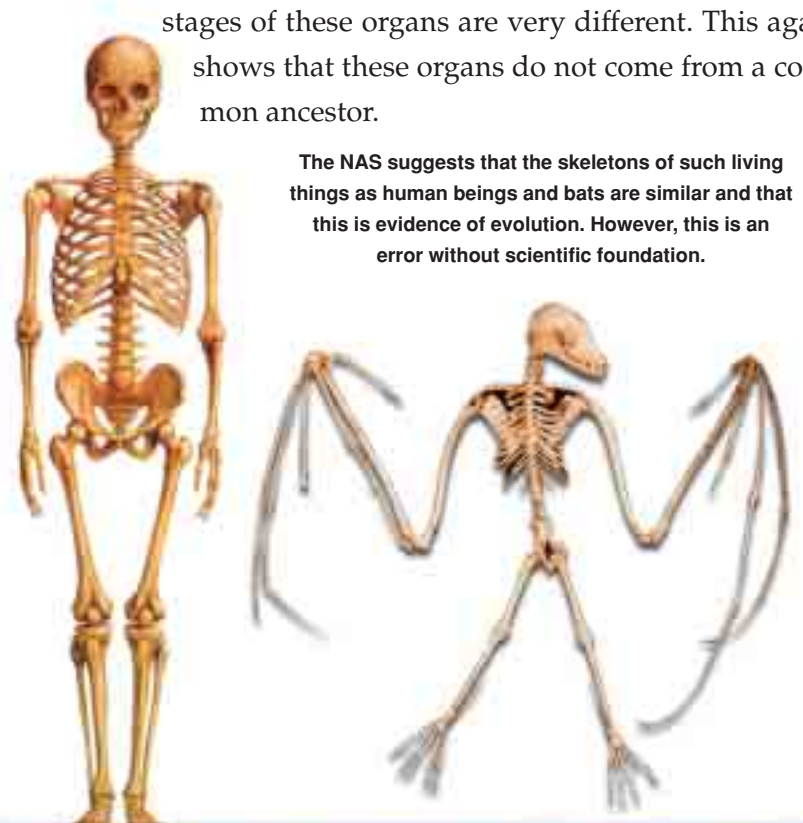
The NAS's Errors in Portraying Common Structures as Evidence of Evolution

1. Evolutionists both portray homology as proof of descent from a common ancestor and describe it as descent from a common ancestor. This is a tautology—in other words, circular reasoning—and scientifically speaking proves nothing at all.

2. There are also common structures among living things for which evolutionists do not claim an evolutionary relationship—like those between marsupial and placental mammals, for example. This means that the reason for common structures is not a common ancestor.

3. Contrary to what the NAS would have one believe, the similar structures in many living things are not caused by similar genes. This shows that they do not have a common evolutionary origin.

4. In living things with homologous organs, the developmental stages of these organs are very different. This again shows that these organs do not come from a common ancestor.



The NAS suggests that the skeletons of such living things as human beings and bats are similar and that this is evidence of evolution. However, this is an error without scientific foundation.

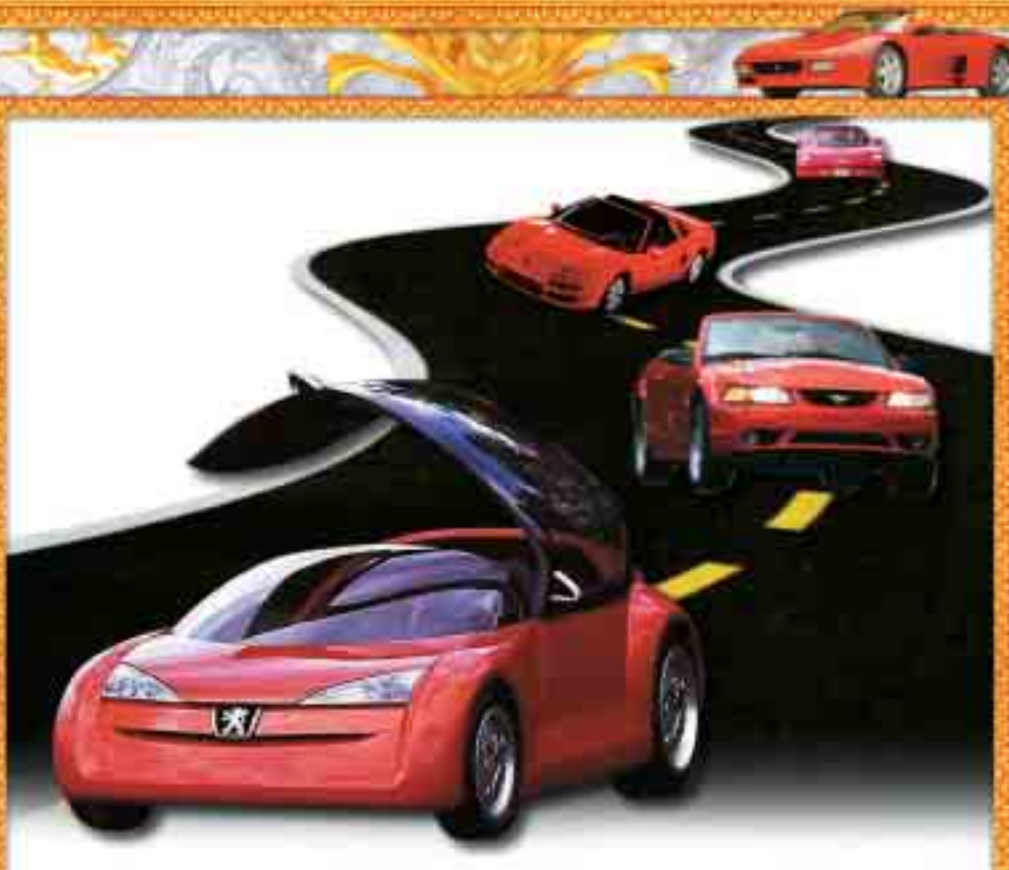
Homology as Evidence for Evolution: An Example of Circular Reasoning

The NAS makes the same mistake as Darwin and suggests that a common ancestor is the best explanation of the common structures among living things. In suggesting that descent from a common ancestor is a certain fact, the NAS is making an assumption, based on a preconception; then it turns around and says that the only explanation for common structures is a common ancestor.

Another error which Darwinists make with regard to homologous organs is hidden in the circular reasoning they employ. According to Darwin and his loyal followers in the NAS, common structures are both the result and proof of the theory of evolution. This deficient logic basically says that the theory of descent from a common ancestor proves homology, which in turn proves descent from a common ancestor.


Charles Darwin

This is like saying first: "All red convertibles resemble each other; this is proof of the existence of a factory that produces all red convertibles," and then going on to say, "The best explanation of the fact that all red convertibles resemble each other is that they were all made in the same factory." There is no proof of anything here, merely an unproven hypothesis and phe-



In the same way that it is illogical to claim that all convertible cars were produced in the same factory, it is also illogical to regard living things with similar organs and structures as evidence of descent from a common ancestor.

nomena interpreted in the light of that hypothesis.

This circular reasoning seen in many of the theory of evolution's claims, as with natural selection, is criticized by many biologists and philosophers. One of these is Ronald Brady, a professor of philosophy from New Jersey's Ramapo College, who wrote the following in 1985:

> By making our explanation into the definition of the condition to be explained, we express not scientific hypothesis but belief. We are so convinced that our explanation is true that we no longer see any need to distinguish it from the situation we were trying to explain. Dogmatic endeavors of this kind must eventually leave the realm of science.[2]

Why Common Structures Do Not Prove A Common Ancestor

The evolutionists' homology thesis rests on the logic of building an evolutionary relationship between living things with similar structures. The fact is, however, that species between which no evolutionary relationship can be constructed also possess very similar organs. The wing is one example of this. Bats (which are mammals), birds, and flying insects all have wings. Furthermore, in the past there were also winged, flying reptiles. However, it is impossible to construct any evolutionary link or relationship between these four different groups.

Another striking example of this phenomenon is the surprising structural and other similarities in the eyes of living things. The squid and man, for instance, are very different living things, between which no evolutionary link can possibly be established. However, in terms of structure and function their eyes are very similar. Yet not even evolutionists can claim that man and the squid have a common ancestor with similar eyes.

The squid and man are two living things between which it is impossible to build any evolutionary link. Despite this, however, their eyes closely resemble one another in terms of structure and function. This invalidates the evolutionist claim that "common structures reveal a common ancestor."

In the face of this, evolutionists say that these are not "**homologous**" organs (i.e., descended from a common ancestor), but "**analogous**" (very similar despite not having an evolutionary connection).

For instance, the human eye and the squid eye are analogous organs in their view. However, the question of whether a given organ will be deemed a homology or an analogy is answered totally in the light of the theory of evolution's preconceptions. This shows that there is nothing scientific about the evolutionist claims based on similarity. Evolutionists interpret discoveries unreservedly according to their dogma, and refuse to behave objectively.

Yet the interpretation they come up with is a most inconsistent one. This is because organs they are forced to regard as "analogous" sometimes resemble each other so closely, despite their extraordinarily complex structures, that it is quite inconsistent to maintain that this similarity came about as the result of chance mutations. If, as evolutionists claim, the squid eye emerged by chance, how is it that exactly the same coincidences took place in the vertebrate eye? The well-known evolutionist Frank Salisbury, who pondered this question long and hard, writes:

> Even something as complex as the eye has appeared several times; for example, in the squid, the vertebrates, and the arthropods. It's bad enough accounting for the origin of such things once, but **the thought of producing them several times** according to the modern synthetic theory **makes my head swim**.[3]

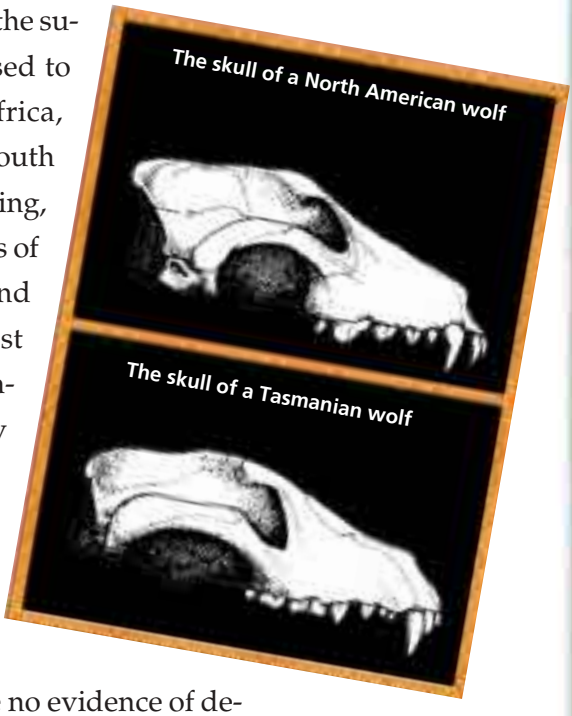
According to evolutionist theory, wings emerged four times, totally independently of one another: in insects, flying reptiles, birds and flying mammals (bats). This four-fold emergence of the wing, which cannot be explained by natural selection and mutation mechanisms, as well as the structural similarities between the various kinds of wings, represents a major difficulty for evolutionists.

The existence of similar wings among living things that evolutionists themselves admit are not evolutionarily related represents another dilemma for them.

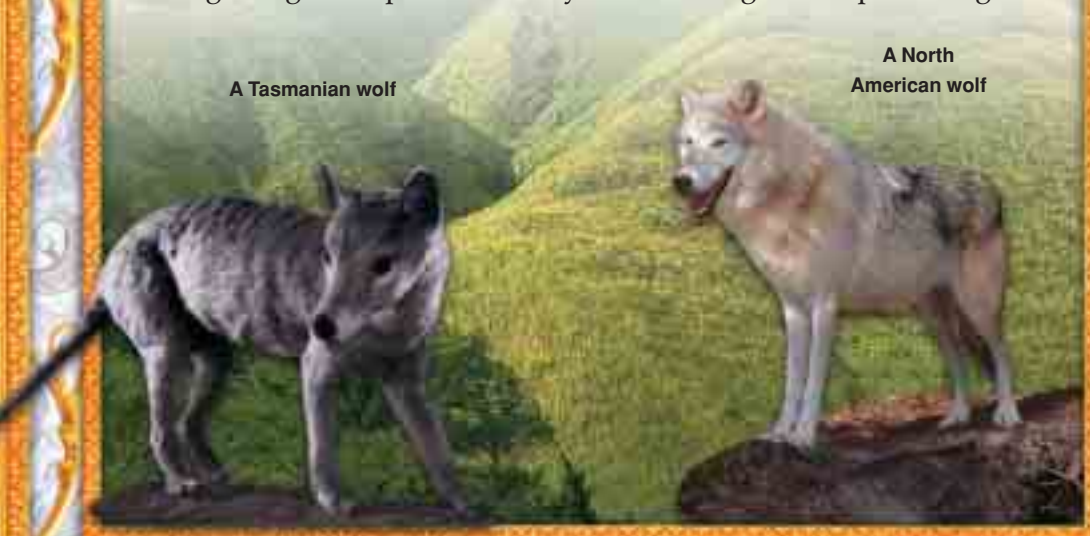
One of the most concrete examples that totally undermines the evolutionist thesis in this area can be seen in mammals. Modern biologists are agreed that all mammals are divided into three categories: placentals, marsupials, and monotremes. Evolutionists assume that this division goes back to the very beginning and that both categories have a completely independent evolutionary history. How interesting it is, therefore, that there are almost identical "pairs" in **placentals** and **marsupials**. Wolves, cats, squirrels, ant-eaters, moles, and mice all have their marsupial counterparts with closely similar morphologies.[4] In other words, according to the theory of evolution, completely independent mutations must have twice chanced to produce these living things in exactly the same way! This represents a terrible dilemma for evolutionists.

One of the fascinating similarities between the placental and marsupial categories is that between the **North American Wolf** and the **Tasmanian Wolf.** The former is placental and the latter marsupial. Evolutionary biologists believe that these two different species have a totally different evolutionary history.[5] (It is assumed that relations between marsupials and placentals have been severed since the Australian conti-

nent and the islands around it split away from Gondwanaland, the supercontinent that is supposed to be the originator of Africa, Antarctica, Australia, and South America.) The interesting thing, however, is that the skeletons of the North American and Tasmanian wolves are almost identical. Their skulls resemble each other particularly closely.



Similarities such as these, which evolutionary biologists are unable to accept as "homologous," show that similar organs are no evidence of descent from a common ancestor. Even more interesting, the situation is the exact reverse in some other living things. In other words, there are living things that possess totally different organs despite being re-



garded as close relatives by evolutionists.

For instance, the great majority of species in the crustacean class have a refracting eye structure. Only two species, the lobster and the shrimp, have a totally different reflecting, mirrored eye structure.

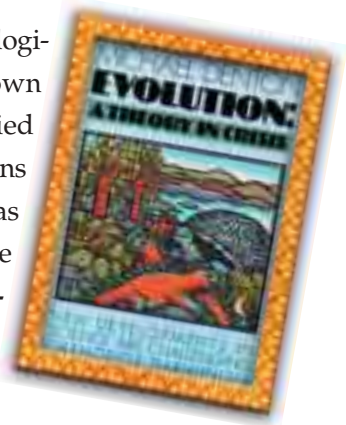
Common Structures Controlled by Different Genes

According to the claims made by the NAS and evolutionists on the subject of homology, similar structures and functions in living things must again be controlled by similar genes. As we know, the theory of evolution suggests that living things developed by way of small, random changes in their genes—that is, by mutations. The genetic structures of living things regarded as close evolutionary relatives should therefore also be similar. In particular, similar organs should be controlled by very similar genetic structures. Yet, the fact is that genetic research has revealed results completely at variance with this evolutionist thesis.

Similar organs are generally formed by very different genetic (DNA) codes. In addition, similar genetic codes in the DNA of different living things relate to very different organs. In the chapter headed "The Failure of Homology" in his book *Evolution: A Theory in Crisis*, the Australian biologist Michael Denton states that homology does not offer proof of evolution. Denton states that in order for homology to represent evidence of evolution it needs to show that similar organs are controlled by similar genes and also that similar organs undergo a similar embryological process. However, Denton goes on to say that this is not the case and that homology represents a failure for the theory of evolution:

The validity of the evolutionary interpretation of homology would

have been greatly strengthened if embryological and genetic research could have shown that homologous structures were specified by homologous genes and followed patterns of embryological development… But it has become clear that the principle cannot be extended in this way. **Homologous structures are often specified by non-homologous genetic systems and the concept of homology can seldom be extended back into embryology.** [6]



Michael Denton's book *Evolution: A Theory in Crisis*

In the same book, Denton summarizes his conclusions:

> The evolutionary basis of homology is perhaps even more severely damaged by the discovery that apparently homologous structures are specified by quite different genes in different species.[7]

In a 1997 article, Richard Milton describes how molecular biology has shattered evolutionists' hopes regarding homology:

> It isn't only embryology that experienced such disappointments. In the 1950s, when molecular biologists began to decipher the genetic code, there was a single glittering prize enticing them. When they found the codes for making proteins out of amino acids, they naturally assumed that they were on the brink of discovering at the molecular level the same homologies that had been observed at the macroscopic level in comparative anatomy.
>
> If the bones of the human arm could be traced to the wing of the bat and hoof of the horse, then the miraculous new science of molecular biology would trace the homologies in DNA codes that expressed these physical characteristics… Yet when biologists did begin to acquire an understanding of the molecular mechanism of genetics, **they found that apparently homologous structures in different**

Work on unraveling the genetic code revealed that anatomical and morphological similarities between living things were non-existent at the genetic level.

species are specified by quite different genes.[8]

In fact, this was well known long before. In 1971, the famous evolutionist Gavin de Beer wrote:

> It is now clear that the pride with which it was assumed that the inheritance of homologous structures from a common ancestor explained homology was misplaced.[9]

De Beer had proven with a number of examples that homologous structures could emerge from different genes. One of these was the segments in insects' bodies. The development of these body parts is controlled by different genes in the fruit fly, the locust, and the wasp. Since it is accepted that the bodies of all insects are homologous, this shows that there is no need for homologous features to be controlled by equivalent genes. Another example is the gene known as "sex-lethal," necessary for sex determination in the fruit fly. This gene is not required for the emergence of males and females in other insects. [10]

Another matter which shows that similar organs are not controlled by similar genes is that a gene is generally responsible for more than one feature of a living thing. The gene which determines the

color of a rat's fur also determines its dimensions. The gene which determines the color of the fruit fly *Drosophila*'s eyes also controls the female's sex organ. Nearly all the genes in higher organisms have more than one function. The evolutionist biologist Ernst Mayr admits that there are very few or even no genes controlling only one feature.[11]

Denton cites examples of a pleiotropic gene (having more than one effect) from chickens. The effects of a rather harmful mutation in a single gene may include irregular wing development, lack of toes, sparse feathers, and lung and air-sac deficiencies. The importance of this is that while some affected features such as wings and feathers are specific to birds, others, such as the lung, apply to many other vertebrates, including human beings. Denton stresses "that nonhomologous genes are involved to some extent in the specifications of homologous structures."[12]

The exact opposite of this—that is, the emergence of non-homologous structures from identical genes—is also frequently encountered. For instance, the gene known as *Distal-less* is related to the development of limbs in mice, moths, spiny worms, velvet worms, and sea urchins, and yet the appendages of these creatures are all

very different. In other words, they are not homologous.

Biologists studying these similarities announced in 1997 that it was astonishing that the appendages of these animals should be so different, and that their anatomies and "evolutionary pasts" must be totally different. In 1999, Professor Gregory Wray of Duke University's Zoology Department found "surprising" the association between the gene *Distal-less* and "what are superficially similar, but non-homologous structures." Wray's conclusions were;

> This association between a regulatory gene and several non-homologous structures seems to be the rule rather than the exception.[13]

In his book H*omology: An Unsolved Problem*, published as far back as 1971, the evolutionary biologist De Beer put forward a wide-ranging analysis of the subject and summarized why homology represented a serious difficulty for the theory of evolution:

> What mechanism can it be that results in the production of homologous organs, the same "patterns," in spite of their *not* being controlled by the same genes? I asked this question in 1938, and it has not been answered.[14]

The question put by De Beer in 1938, to which he was unable to find an answer in 1971, is still unanswered today.

Common Structures With Different Developmental Patterns

Another piece of evidence that undermines the claims of homology is the question of embryological development. Despite the fact that the NAS authors insist in the chapter named "Similarities During Development" that there are similarities between living things during their development and that this is proof of descent from a common ancestor (*Science and Creationism*, p. 17), this claim does not reflect the true facts.

In order for the evolutionist thesis regarding homology to be taken seriously, the developmental processes of homologous structures—in other words the stages of embryological development in the egg and the mother's womb—need to be parallel. The fact is, however, that these embryological process for homologous organs are very different in every living thing. No matter how much evolutionists choose to ignore it, this truth has been known to scientists since the nineteenth century. For example, the American embryologist E.B. Wilson wrote in 1894,

> It is a familiar fact that parts which closely agree in the adult, and are undoubtedly homologous, often differ widely in larval or embryonic origin either in mode of formation or in position, or in both.[15]

Sixty years after Wilson, De Beer repeated the fact and stated,

> The fact is that correspondence between homologous structures cannot be pressed back to similarity of position of the cells in the embryo, or of the parts of the egg out of which the structures are ultimately composed, or of developmental mechanisms by which they are formed.[16]

This still applies today. The contemporary biologist Pere Alberch makes the following analysis:

> [It is] the rule rather than the exception that homologous structures form from distinctly dissimilar initial states. [17]

The evolutionary developmental biologist Rudolf Raff studied two species of sea urchin which had reached almost identical forms by way of very different paths, and expressed the same difficulty in 1999:

> Homologous features in two related organisms should arise by similar developmental processes . . . [but] features that we regard as homologous from morphological and phylogenetic criteria can arise in different ways in development.[18]

The incompatibility between the developmental pathway of homologous organs also applies to some vertebrate limbs. Salamanders are one example of this. The development of the digits of many vertebrate limbs is from the back to the front, i.e., from the tail to the head. This is the case with frogs, for instance. Yet, the manner of development of salamanders—which, like frogs, are amphibians—is very different. In salamanders, the development of digits is in the exact opposite direction, from the head to the tail.

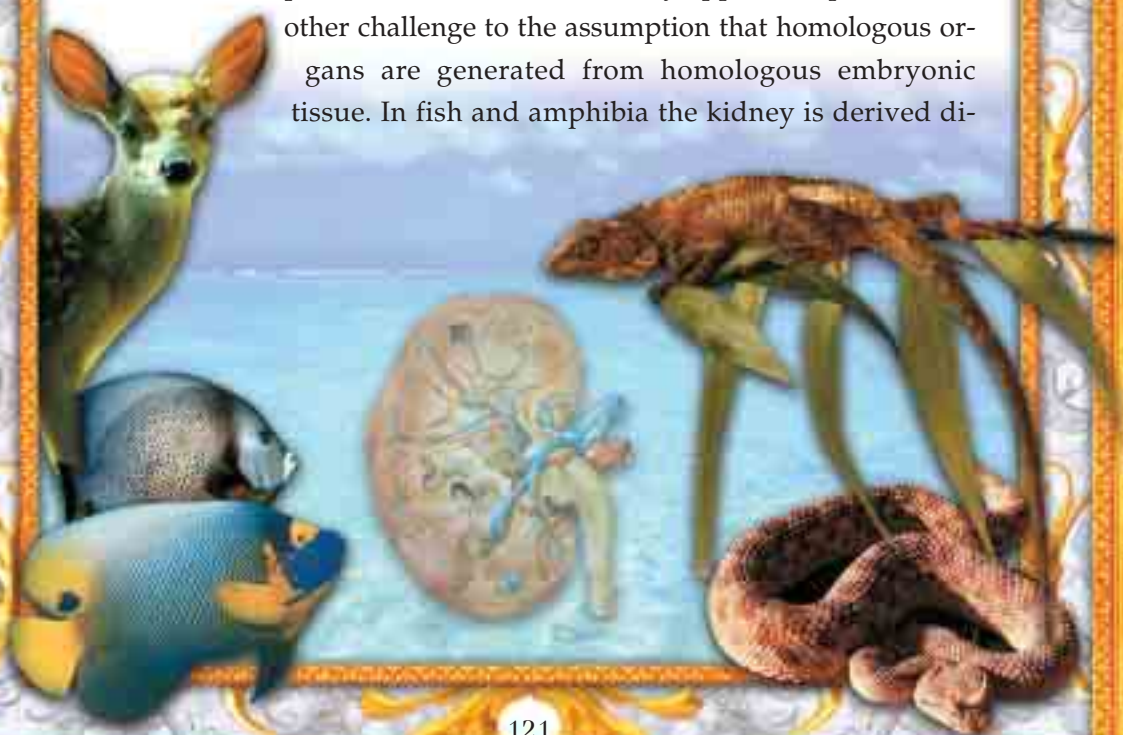
Another instance of homologous organs that do not pass through the same embryological stages relates to the way in which these organs generally start to develop in different regions of the embryo. Research has shown that similar organs in different animals begin to be formed by different groups of cells within the embryo. The development of the alimentary canal is one example of this; this fundamental

structure emerges in very different ways in a great many different creatures. For example, the alimentary canal in sharks forms from the roof of the embryonic gut cavity. In the lamprey, an eel-like fish, however, it forms from the floor of the gut. In frogs, it begins to form from the floor and roof of the embryo, while in birds and reptiles it starts in the lower layer of the embryonic disc or blastoderm. [19]

Darwin's classic example of homology was the forelimbs of vertebrates. This, too, represents a problem for the theory of evolution. This is because the forelimbs emerge in different body segments in different species. In the newt, for example, the forelimbs emerge from segments 2, 3, 4, and 5 of the trunk; in lizards, from segments 6, 7, 8, and 9; and in human beings, from segments 13, 14, 15, 16, 17, and 18.[20] As the molecular biologist Michael Denton has stated, it could be concluded from this fact that forelimbs are not homologous.[21]

According to Denton,

> The development of the vertebrate kidney appears to provide another challenge to the assumption that homologous organs are generated from homologous embryonic tissue. In fish and amphibia the kidney is derived di-



> rectly from an embryonic organ known as the mesonephros, while in reptiles and mammals the mesonephros degenerates towards the end of embryonic life and plays no role in the formation of the adult kidney, which is formed instead from a discrete spherical mass of mesodermal tissue, the metanephros, which develops quite independently from the mesonephros...[22]

The emergence of similar structures as the result of totally dissimilar processes is frequently encountered, especially in the later stages of development.

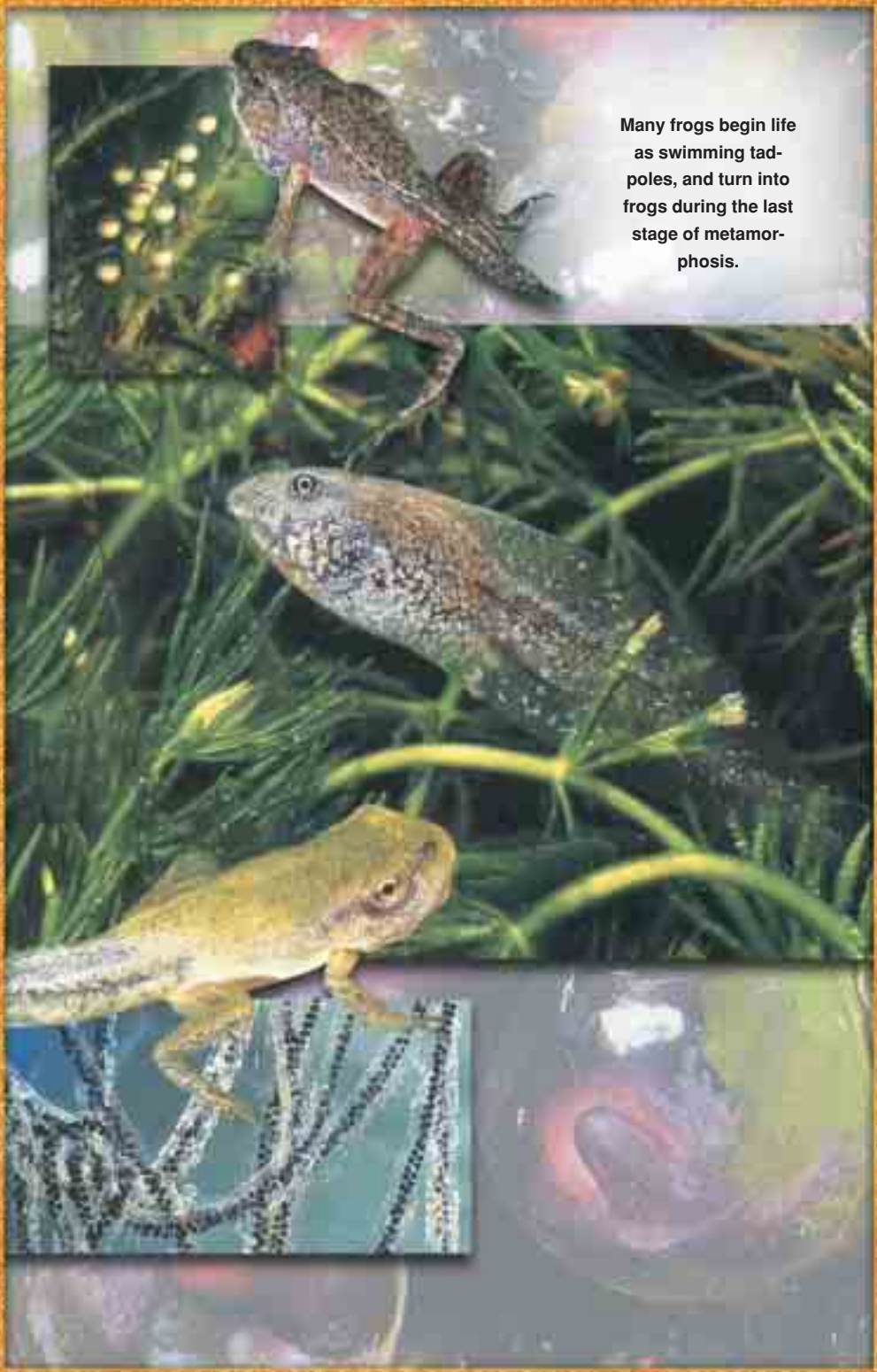
Many animal species undergo a process known as "indirect development" on the path to adulthood; in other words, they have a larval stage. For example, many frogs start life as swimming tadpoles and turn into four-footed animals at the last stage of metamorphosis. There are also other frog species which bypass the tadpole stage and develop directly. However, most adults from these directly-developing species are almost indistinguishable from other frogs that go through the tadpole phase. [23]

In short, embryological and genetic research shows that the concept of homology, which Darwin put forward as proof that living things had developed from a common ancestor, actually represents no such proof at all. A close study of homology demonstrates that it is a clearly inconsistent evolutionist error.

After citing examples from embryology of the dilemma that homology poses for the theory of evolution, Richard Milton says,

> Many other comparable examples can be given from embryology: in almost every case they have been put into a file drawer labeled "unresolved problems of homology" and largely forgotten about.[24]

The way in which the NAS ignores facts known to and accepted by all scientific circles, and tries to portray discredited evidence for the theory of evolution as the definitive truth, is really astonishing.



Many frogs begin life as swimming tadpoles, and turn into frogs during the last stage of metamorphosis.

THE NAS'S ERRORS REGARDING REPTILES AND MAMMALS

At the end of the chapter on "Common Structures" in the NAS book *Science and Creationism*, it is stated that "The mammalian ear and jaw are instances in which paleontology and comparative anatomy combine to show common ancestry through transitional stages." (*Science and Creationism,* p. 15). In essence, the NAS's claim in this chapter is that while the mammalian lower jaw consists of a single bone, the reptile jaw consists of three. Evolutionists maintain that that the greater number of bones in reptiles' ears are homologous to the bones in those of mammals, and put this forward as evidence that mammals evolved from reptiles. One proof of this transition, according to evolutionists and the NAS, is the so-called transitional form *Therapsida*, a group of mammal-like reptiles with a double jaw joint.

The above account is a classic evolutionist claim. If evolutionists see the slightest similarity between two species, they are not slow to interpret that similarity in terms of evolution. However, in doing so they ignore all the facts that make their interpretation impossible.

The alleged evolution of reptiles into mammals is a matter that contains several major difficulties for evolutionists. The fact that two mammal bones resemble certain bones in reptiles does not resolve the issue. Many questions remain unanswered. For example, how did jaw bones "migrate" to such an irreducibly complex organ as the ear, as a result of mutations? How did these mutations manage to shrink the two jaw bones, cause them to have them the ideal shape and dimensions, and form muscles around them? How did random changes build a perfect balance in the middle ear? And, finally, how did the animal manage to hear and eat while all this was going on? All of these questions remain unanswered. Evolutionists are unable to answer them, because any one of them is sufficient to undermine the myth of the evolution of reptiles into mammals.

Fossils of creatures belonging to the order *Therapsida* cannot substantiate the evolutionists' claims. First and foremost, *therapsid* fossils do not appear in the fossil record in the sequence expected by Darwinism.

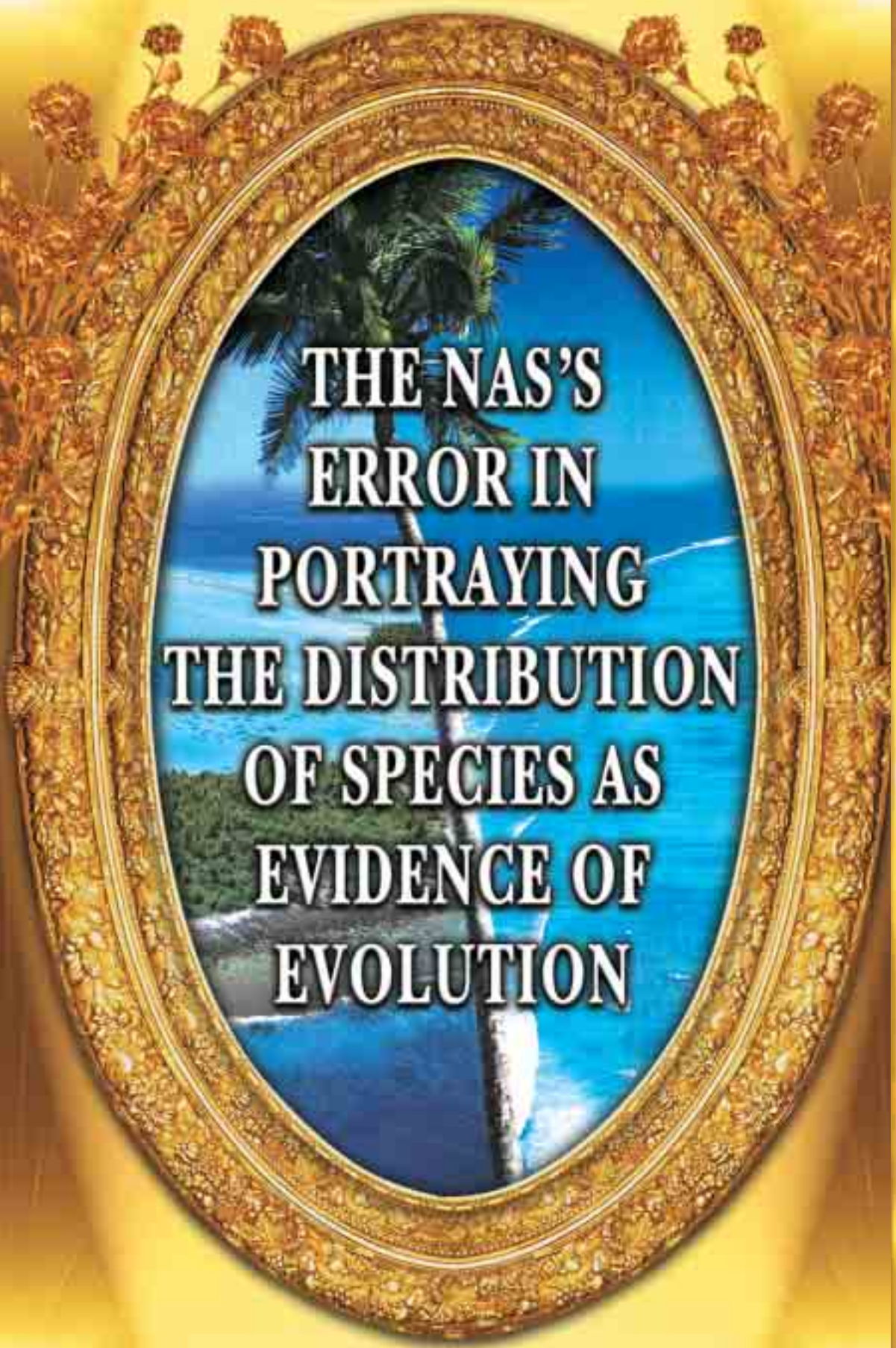
For the evolutionists' claims to be true, *therapsid* fossils would need to appear in order in the strata from the most reptile-like to the most mammal-like, with respect to jaw features. Yet, this order does not appear in the fossil record.

In his book *Darwin On Trial*, the famous critic of Darwinism Phillip Johnson makes this comment on the subject:

> **An artificial line of descent [between reptiles and mammals] can be constructed, but only by arbitrarily mixing specimens from different subgroups, and by arranging them out of their actual chronological sequence.[1]**

In addition, the ear and jaw bones are the only common feature between *therapsids* and mammals. When the enormous differences between the *therapsid* and mammalian reproductive system and other organs are examined, it will be seen how far the question of the supposed evolution of reptiles into mammals is from being answered. Taking it still further, matters become even more complicated. For example, one may ask how mammals—a group that includes a great many different categories, such as primates, horses, bats, whales, polar bears, squirrels, and ruminants—evolved from reptiles by means of random mutations and natural selection. (For more detailed information on evolutionists' dilemmas with regard to the origin of mammals, see Harun Yahya, *Darwinism Refuted*, Goodword Books, 2003.)

1 Phillip E. Johnson, *Darwin on Trial*, Intervarsity Press, 1993, p. 79


THE NAS'S
ERROR IN
PORTRAYING
THE DISTRIBUTION
OF SPECIES AS
EVIDENCE OF
EVOLUTION

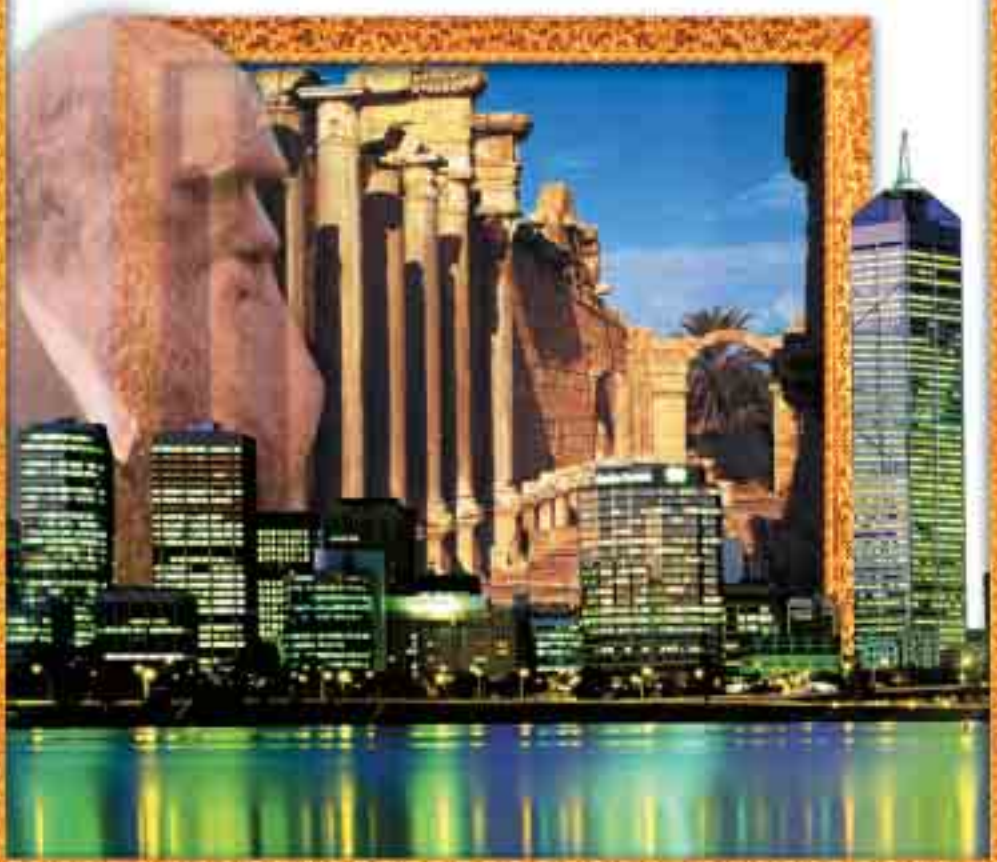
In the chapter entitled "The Distribution of Species," the NAS portrays the subject of biogeography, which is still the topic of much debate amongst evolutionists, as evidence of evolution (*Science and Creationism*, p. 15). The NAS's views on this subject are summed up in these words:

And why are island groups like the Galápagos so often inhabited by forms similar to those on the nearest mainland but belonging to different species? Evolutionary theory explains that biological diversity results from the descendants of local or migrant predecessors becoming adapted to their diverse environments. This explanation can be tested by examining present species and local fossils to see whether they have similar structures, which would indicate how one is derived from the other. Also, there should be evidence that species without an established local ancestry had migrated into the locality.

Let us examine the NAS's account. According to the NAS, living things on islands such as Hawaii or Galápagos, which are surrounded by vast reaches of ocean, either evolved from other living things in the region or else in some way evolved from "migrant predecessors" that came to the islands. There is a geographical obstacle between these islands and other land masses. For that reason, these living things adapt to the features of a particular region and acquire specific features. As we have already seen, this is what biologists call "microevolution"—that is, variation, in which an organ does not acquire new genetic in-

formation and which is therefore not an example of evolution. As we saw in the chapter "The NAS's Errors Regarding Speciation," no species can evolve into another, no matter what that species may be nor how long it may remain geographically isolated. We examined in some detail in that chapter why it is wrong to portray variation as evolution.

In fact, that example is important because it introduces us to a deceptive method frequently employed by evolutionists. That is the way they refer to any change in nature, or even in society, as "evolution" and portray it as evidence for the theory. Sometimes, evolutionists employ an even more deceptive variety of this method and say, "Evolution is gradual change." According to this misleading defini-

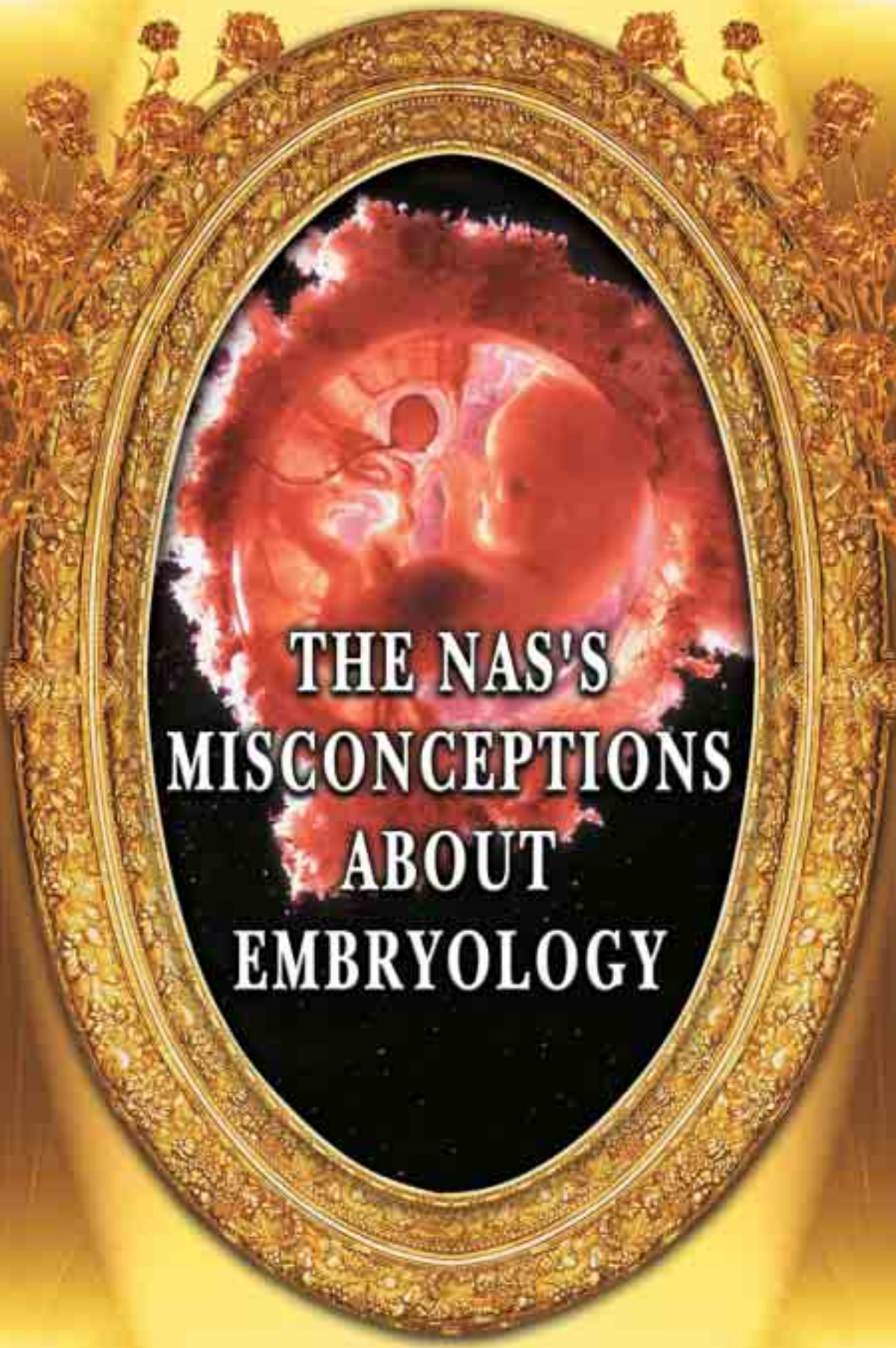


tion, all kinds of changes could be portrayed as "living examples of evolution." In fact, as we saw at the beginning, human cultural and technological change is even described an "evolution" and immediately linked to Darwinism. All these distortions are deceptions which can only mislead those who lack sufficient information on the subject or fail to consider it properly. They show just how despairing the proponents of the theory of evolution are when it comes to finding evidence.

On the other hand, the verbiage employed in the NAS book is also of interest. For instance, the NAS authors suggest that some snail and fruit fly species found on Hawaii evolved from a few common ancestors that reached the area in the past. Yet, for some reason, there is no fossil evidence to back this up. The NAS is employing the familiar old evolutionist logic, saying, "All living things came into being by evolution; that means they all descended from a common ancestor."

Biogeography, the geographical distribution of living things, offers no evidence of evolution. This branch of science concerns such subjects as mapping, the extinction of organisms, and ecology. Despite being evolutionists, G. Nelson and N. Platnick of the American Museum of Natural History in New York, admit that biogeography has nothing to do with the theory of evolution:

> We conclude, therefore, that biogeography (or geographical distribution of organisms) has not been shown to be evidence for or against evolution in any sense.[1]


THE NAS'S
MISCONCEPTIONS
ABOUT
EMBRYOLOGY

In the NAS's booklet, Ernst Haeckel's "biogenetic law," an error which has been widely acknowledged to be invalid and based on a wide-scale deception, is portrayed as evidence for evolution (*Science and Creationism*, p. 17). In the chapter concerned, the NAS suggests that embryology represents proof that living things descended from a common ancestor and that the early stages of development of living things resemble one another. This is a claim whose validity is rejected both by the scientific community and the NAS, and even by Bruce Roberts, one of the authors of the booklet in question. In an interview, Bruce Roberts stated that Haeckel's counterfeit embryo drawings (which we shall be examining in the pages that follow) would be removed from the subsequent edition of the book *Molecular Biology of the Cell*, which he co-authored.[1]

The reason why the NAS still seeks to portray claims known by the scientific community to be invalid as proof of evolution is another matter requiring investigation. This chapter will explain why, contrary to what the NAS would have one believe, embryology does not represent evidence for evolution.

Haeckel's Recapitulation Theory

Although not referred to by name in the NAS booklet, Ernst Haeckel led the way in portraying embryology as proof of evolution. Haeckel invented the terms "ontogeny" and "phylogeny." Ontogeny referred to the embryonic development of an individual and phylogeny to the evolutionary history of a species. Haeckel claimed

that as they developed embryos passed through the adult forms of their ancestors and "recapitulated" their evolutionary history. In other words, he proposed that as already evolved features emerged at the end of development, ancestral features could be observed in the early stages of that development. Haeckel called this so-called theory of "recapitulation" the "biogenetic law," and summed it up in the famous phrase "ontogeny recapitulates phylogeny." In his *The Descent of Man*, Darwin portrayed Haeckel's drawings as important evidence in support of his own theory.

Haeckel reached this conclusion not as the result of observation, but by taking the theory of evolution as his starting point. In 1909, the British zoologist Adam Sedgwick said this of Haeckel's theory:

> The recapitulation theory originated as a deduction from the evolution theory and as a deduction it still remains.[2]

The invalidity of the theory of recapitulation was soon realized. At the beginning of the twentieth century many scientists had seen that it was incorrect. Stephen Jay Gould wrote:

> Haeckel's program of using the biogenetic law to search for entire ancestors in the embryonic stages of modern forms was pursued with much hope and fanfare, but led to few positive results and endless wranglings about untestable phylogenetic scenarios – all because the phylogenetic law is basically false. By the closing years of the nineteenth century, Haeckel's program had become a source of much ridicule…[3]

In an article published in *American Scientist* in 1988, Professor K.S. Thomson says:

> Surely the biogenetic law is as dead as a doornail. It was finally exorcised from biology text books in the fifties. As a topic of serious theoretical inquiry it was extinct in the twenties.[4]

Molecular biologist C. McGowan's admission was particularly frank:

> Like so many ideas, [recapitulation] seemed like a good one at the

time, but as the creationists like to point out to us, the idea has long since been rejected.[5]

Ernst Mayr also admitted the truth of this in the words, "**The theory is now known to be invalid** ..."[6]

The theory of recapitulation was not rejected by scientists because it began to conflict with new discoveries; rather, it was known right from the start that the theory conflicted with the evidence. The historian of science Nicholas Rasmussen has this to say on this subject:

> All the important evidence called upon in the rejection of the biogenetic law was there from the first days of the law's acceptance.[7]

Haeckel's Faked Drawings

The most important aspect of the matter is that the "biogenetic law" was actually based on a scientific fraud. In order to prove his theory, Haeckel drew distorted pictures of the embryos of different living things. These embryos were depicted as being very similar, whereas in truth they were very different.

There were various aspects to the fraudulent nature of Haeckel's drawings:

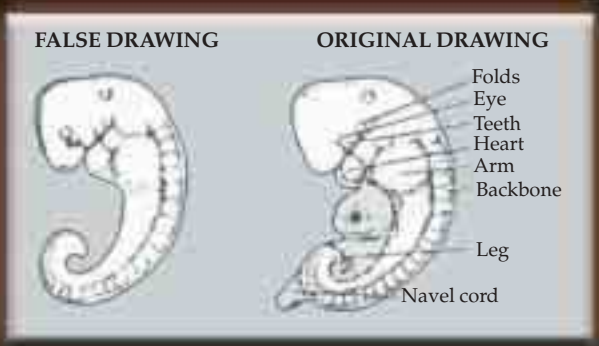
1. Haeckel selected only those embryos that he regarded as fitting his theory. Despite there being seven classes of vertebrate (jawless fish, cartilaginous fish, bony fish, amphibians, reptiles, birds and mammals), he removed the first two classes and only included drawings of the last five. Moreover, half of the embryos he selected belonged to mammals, and all belonged to the same subclass (placentals); he did not include any examples from the other two subclasses of mammals (monotremes and marsupials). As a result, Haeckel selected the specimens for his drawings in a biased manner and did not behave scientifically.

HAECKEL'S COUNTERFEIT DRAWINGS

Ernst Haeckel deceived the scientific world for a century with his counterfeit embryo drawings.

Haeckels drawings can be seen on the right. Below is a detail from these drawings: A false illustration designed to prove that there were similarities between human and fish embryos. Compared to a real human embryo, it can be seen that a large number of the organs have been deliberately removed.

(Francis Hitching, *The Neck of the Giraffe: Where Darwin Went Wrong*, p. 205)



In its September 5, 1997, issue, the famous journal *Science* published an article revealing that Haeckel's embryo drawings were frauds. The article described how embryos are in fact very different from one another.


Haeckel's Embryos: Fraud Rediscovered

Ring Laser Senses Earth's Spin

Observations in recent years have revealed that, contrary to what Haeckel claimed, the embryos of different living things do not resemble one another. The differences between the mammal, reptile, and bat embryos seen above are a clear example of this.

2. Despite Haeckel's biased selection of embryos, even the examples he picked did not fit his claims. He therefore resorted to counterfeiting. In 1995, the British embryologist Michael Richardson produced a detailed study revealing that Haeckel's drawings were not correct and that they were incompatible with other data available. Richardson arrived at the following conclusion: "These famous images are inaccurate and give a misleading view of embryonic development."[8] In 1997, Richardson and an international team of experts compared Haeckel's embryos with real specimens from the seven classes of vertebrates. It was thus demonstrated that Haeckel's drawings were full of major distortions.

3. In addition, Richardson and his team found major variation among the embryonic morphologies (shapes) of amphibians. Yet, Haeckel selected only the salamander from amongst the amphibians so that it would fit his theory. Had he selected the frog, for instance, the great differences in embryonic stages would have been apparent, and his theory would have been falsified.

4. Richardson and his team also observed extraordinary variations in the dimensions of vertebrate embryos, of between 1 and 10 mm. Haeckel, however, had drawn them all with the same dimensions.

5. Finally, Richardson and his colleagues observed tremendous variation in somites—blocks of muscle tissue that form along each side of the embryo's developing backbone. Although Haeckel's drawings had portrayed all the classes as having more or less the same number of somites, in reality the number varied between 11 and 60 in actual embryos. Richardson and his team arrived at the following conclusion:

"Our survey seriously undermines the credibility of Haeckel's drawings."[9]

When Haeckel's embryos were compared to actual embryos it

was openly apparent that Haeckel had deliberately distorted his drawings to make them fit his theory. In the March 2000 issue of *Natural History*, Stephen Jay Gould wrote that Haeckel "exaggerated the similarities [between embryos of different species] by idealizations and omissions," and that, furthermore, Haeckel's drawings were characterized by "inaccuracies and outright falsification."

In an interview with the journal *Science* following the publication of his research, Richardson characterized Haeckel's drawings in these terms: "It looks like it's turning out to be one of the most famous fakes in biology." In the September 5, 1997, issue of *Science*, the following words appear in an article called "Haeckel's Embryos: Fraud Rediscovered":

> The impression they [Haeckel's drawings] give, that the embryos are exactly alike, is wrong, says Michael Richardson, an embryologist at St. George's Hospital Medical School in London… So he and his colleagues did their own comparative study, reexamining and photographing embryos roughly matched by species and age with those Haeckel drew. Lo and behold, the embryos **"often looked surprisingly different,"** Richardson reports in the August issue of *Anatomy* and *Embryology*.[10]

The article in *Science* stated that Haeckel had deliberately removed organs from his drawings in order to portray the embryos as similar, or else had added non-existent organs. The article continues:

> Not only did Haeckel add or omit features, Richardson and his colleagues report, but he also fudged the scale to exaggerate similarities among species, even when there were 10-fold differences in size. Haeckel further blurred differences by neglecting to name the species in most cases, as if one representative was accurate for an entire group of animals. In reality, Richardson and his colleagues note, **even closely related embryos such as those of fish vary quite**

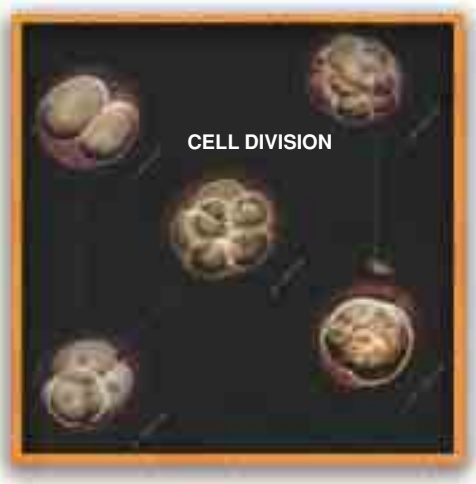
a bit in their appearance and developmental pathway. "It (Haeckel's drawings) looks like it's turning out to be **one of the most famous fakes in biology**," Richardson concludes.[11]

Haeckel's Deception Regarding the Earliest Embryo Stages

Haeckel suggested that embryos resembled each other more closely in the early stages of development. The fact is, however, that his drawings do not include the early stages, but rather begin at the middle stages of development. There are considerable differences between them in the early stages.

Let us examine the first stages of the vertebrate embryos and the forms they take in order to see this deception. When an animal egg is fertilized, it first undergoes a process known as "cell division." At the end of division, the cells begin to move and organize themselves in a second process known as "gastrulation," which is more important than division with regard to the general emergence of body plan, tissue type, and organ systems.

After division and gastrulation, a vertebrate embryo enters the stage referred to by Haeckel as the "first phase." If, as Haeckel claimed, vertebrates possessed the greatest similarity during the earliest phase of their development, then different classes would resemble each other most closely during division and gastrulation. However, research into the

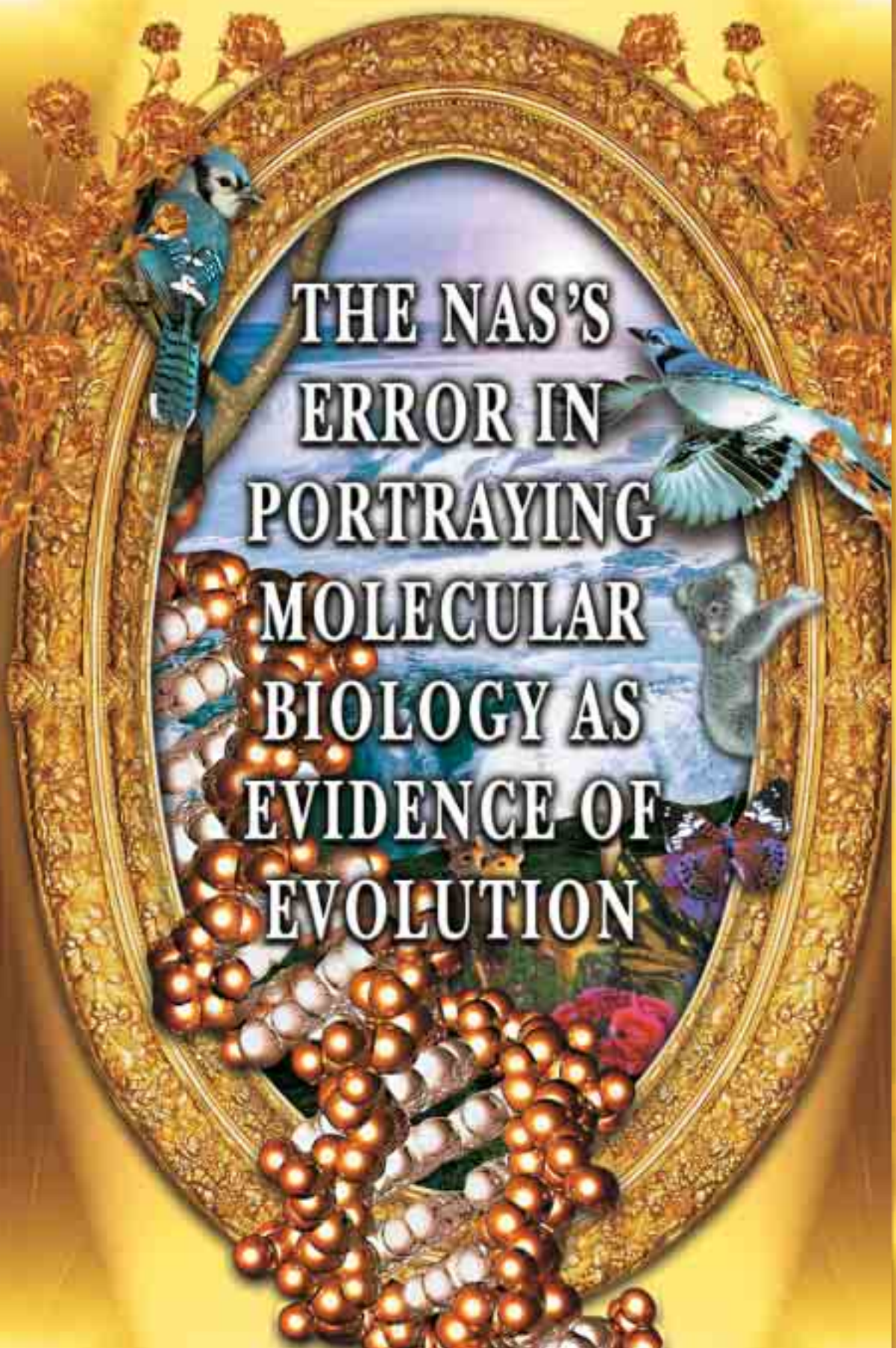


five vertebrate classes given as examples by Haeckel (bony fish, amphibians, reptiles, birds, and mammals) shows that this is not the case.

The differences between the five classes are clear, even in the fertilized egg. Zebrafish and frog eggs are about 1 mm in diameter; the turtle and chick begin as discs 3 or 4 mm in diameter above the yolk; while the human egg is only one-tenth of a millimeter in diameter. The earliest cell divisions in zebrafish, turtle, and chick embryos resemble each other somewhat. However, in many frogs the embryos penetrate the yolk. Mammals are very different. Cell movements at the end of division and during gastrulation are very different in the five different classes. In the zebrafish, cells move slowly outside the yolk, which brings about the development of the embryo. In frogs, cells move as interconnected thin layers, through a pore into the inner cavity. In turtles, chicks, and humans they flow along a channel into the internal cavity of the embryonic disc. If the theory regarding the early development of vertebrates were correct, we would expect these five classes to resemble each other most closely as fertilized eggs, to show more differences during division, and still more during gastrulation. Yet, that is not what we observe. The eggs of the five classes begin life in very different ways.

Conclusion

The really interesting thing is that a theory which the world of science has regarded as invalid for decades should be put forward by the NAS as evidence of evolution. The NAS probably refrains from mentioning Haeckel's name in the chapter in question, since that name is redolent of fraud; and yet it goes along with that same fraud by describing Haeckel's false theory as if it were scientific fact.


THE NAS'S
ERROR IN
PORTRAYING
MOLECULAR
BIOLOGY AS
EVIDENCE OF
EVOLUTION

Perhaps the worst of the totally unrealistic claims in the NAS booklet appear in the chapter "New Evidence from Molecular Biology." Once again, the NAS proves in this chapter that it totally discounts all the research and observations over the last 50 years, and supports the theory of evolution in the face of the scientific facts.

Those scientific facts it regards as proof of the theory of evolution in fact bear no such interpretation. The NAS and other evolutionists accept the theory of evolution as a proven scientific fact first, and only afterwards interpret the results of scientific research and observation in the light of that theory. These interpretations are then offered as evidence of evolution. As we shall be seeing in the following pages, such procedures are examples of the circular reasoning employed by evolutionists.

The Error that Molecular Similarities Are Evidence for Evolution

The basic claim of this chapter is that "The unifying principle of common descent that emerges from all the foregoing lines of evidence is being reinforced by the discoveries of modern biochemistry and molecular biology." (*Science and Creationism*, p. 17). The first example of these proofs in the booklet is nothing other than an assump-

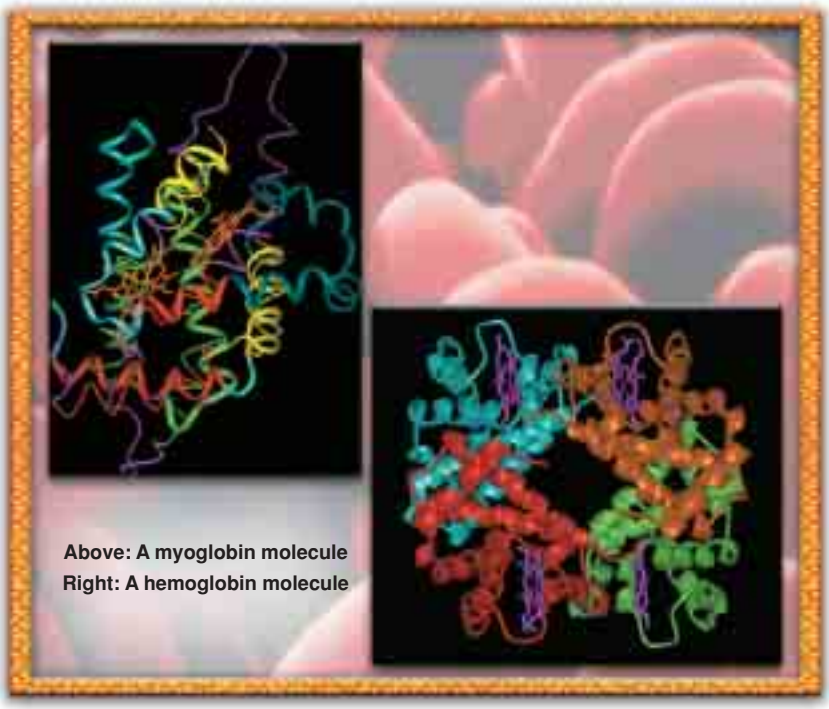
The reason why living things possess similar structures and features is that they all have one Creator: The Almighty God.

tion produced in the light of evolutionist preconceptions. It is, of course, a fact that the code which translates the nucleotide sequences into amino-acid sequences is the same in all living things, and that the proteins in all living things consist of the same 20 amino acids. The NAS's error lies in inferring from this fact the conclusion that living things descended from a common ancestor. This inference is quite ridiculous. Evolutionists first assume that the theory of evolution is an established fact, and then claim that facts deduced from the theory constitute evidence in support of the theory. However, the fact that all living things possess the same features and functions can also be interpreted as proof of the existence of a common design. There is one

Creator Who creates and designs all living things, for which reason it is only to be expected that they all should consist of the same basic features and structures.

Myoglobin is not the Evolutionary Ancestor of Hemoglobin

In the chapter "New Evidence from Molecular Biology," the examples of the molecules hemoglobin and myoglobin are cited, and it is suggested that there is an evolutionary relationship between the two. The claim takes this form in the NAS book: "each chain [that make up hemoglobin] has a heme [group] exactly like that of myoglobin, and each of the four chains in the hemoglobin molecule is folded exactly like myoglobin. It was immediately obvious in 1959 that the



Above: A myoglobin molecule
Right: A hemoglobin molecule

two molecules are very closely related."

It is true that the molecules hemoglobin and myoglobin possess similar features. What is not true is the suggestion by the NAS and other evolutionists that this similarity constitutes proof that hemoglobin evolved from myoglobin. These claims rest on no scientific foundation and are simply the work of evolutionist prejudice. Let us consider the reasons for this:

• It first needs to be made clear that myoglobin and hemoglobin are two molecules with similar functions; hemoglobin carries oxygen in the blood, myoglobin takes the oxygen from hemoglobin and stores it in the tissues, providing oxygen to the working muscles. It is therefore very natural that two protein molecules with similar functions should have been designed to have similar properties. To draw an analogy, all transport vehicles possess similar features; they almost all have an engine, a steering wheel, wheels, and special sec-

It is perfectly natural that vehicles designed for similar purposes should have similar features. For example, every conveyance has a rudder or steering wheel. This principle also applies to proteins with a "common design."

A food mixer and a concrete mixer were designed for similar purposes. Despite their different appearances, they possess similar functions and structures.

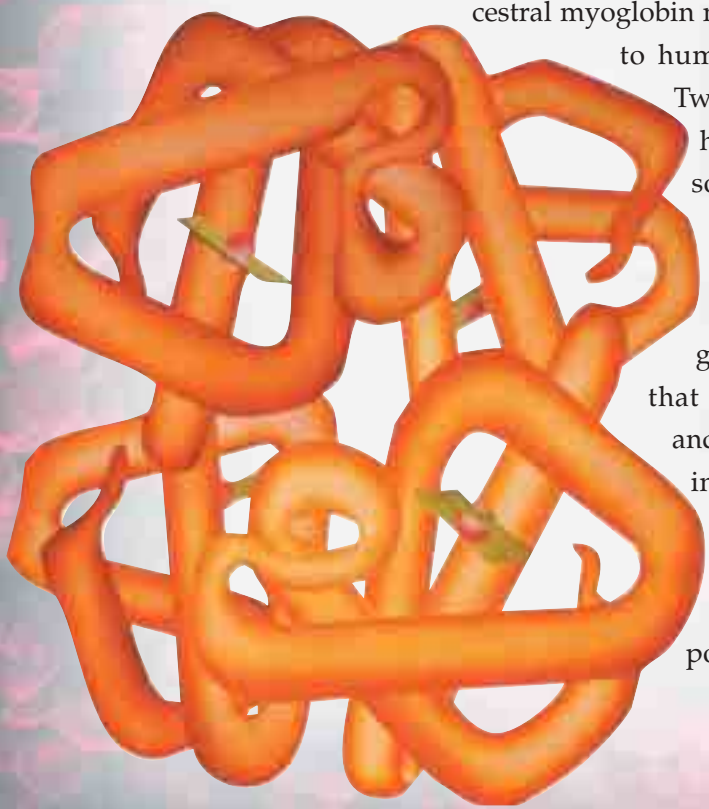
tions to hold cargo or people. It is evident that, because of these similarities, every one of these vehicles was designed for a specific purpose and possesses common features in line with that purpose. Hemoglobin and myoglobin are molecules designed for a similar purpose, for which reason they have similar features.

• When we look at the NAS claim in a little more detail, its impossible nature can be seen more clearly. According to the claim, myoglobin gradually evolved as a result of mutations, differences formed in the amino-acid sequence, and thus the hemoglobin molecule emerged. However, we know that both myoglobin and hemoglobin possess exceedingly complex structures. If either of these molecules is subjected to random factors like mutation, the molecule's function will be corrupted, as we saw in the chapter on mutations, and it will become useless. The disease known as sickle-cell anemia is one example of this. Therefore, to expect a mutation which randomly changes a protein's amino-acid sequence to turn that protein into a more com-

plex one with more features is to believe in the impossible. In order to prove the evolutionist claims, every transitional stage between myoglobin and hemoglobin needs to be functional (and more advantageous than the preceding stage), and that is impossible.

The American chemist Dr. Robert Kofahl, a critic of the theory of evolution, makes the following comment on the impossibility of the claim that hemoglobin evolved from myoglobin:

> A good example of alleged molecular homology is afforded by the a- and b- haemoglobin molecules of land vertebrates, including man. These supposedly are homologous with an ancestral myoglobin molecule similar to human myoglobin. Two a- and two b- haemoglobin associate together to form the marvelous human hemoglobin molecule that carries oxygen and carbon dioxide in our blood. But myoglobin acts as single molecules to transport oxygen in our muscles.



The structure of a hemoglobin molecule

> Supposedly, the ancient original myoglobin molecules slowly evolved along two paths until the precisely designed a- and b-haemoglobin molecules resulted that function only when linked together in groups of four to work in the blood in a much different way under very different conditions from myoglobin in the muscle cells. What we have today in modern myoglobin and haemoglobin molecules are marvels of perfect designs for special, highly demanding tasks. Is there any evidence that intermediate, half-evolved molecules could have served useful functions during this imaginary evolutionary change process, or that any creature could survive with them in its blood? There is no such information. Modern vertebrates can tolerate very little variation in these molecules. Thus, the supposed evolutionary history of the allegedly homologous globin molecules is a fantasy, not science.[1]

As Dr. Kofahl makes clear, the NAS's claims regarding molecular homology are not science at all, but merely fantasy, like all its other claims.

Moreover, the evolutionists' accounts fail to explain the origin of the myoglobin protein. They say that hemoglobin evolved from myoglobin, but how myoglobin came into existence is still a mystery to them.

Molecular Comparisons Conflict with The So-Called Family Tree

It is suggested in *Science and Creationism* that an evolutionary family tree can be drawn up by comparing the proteins in living things, such as hemoglobin, myoglobin, or cytochrome c, and that this tree will agree with the paleontological and anatomical facts. This claim is set out in these terms:

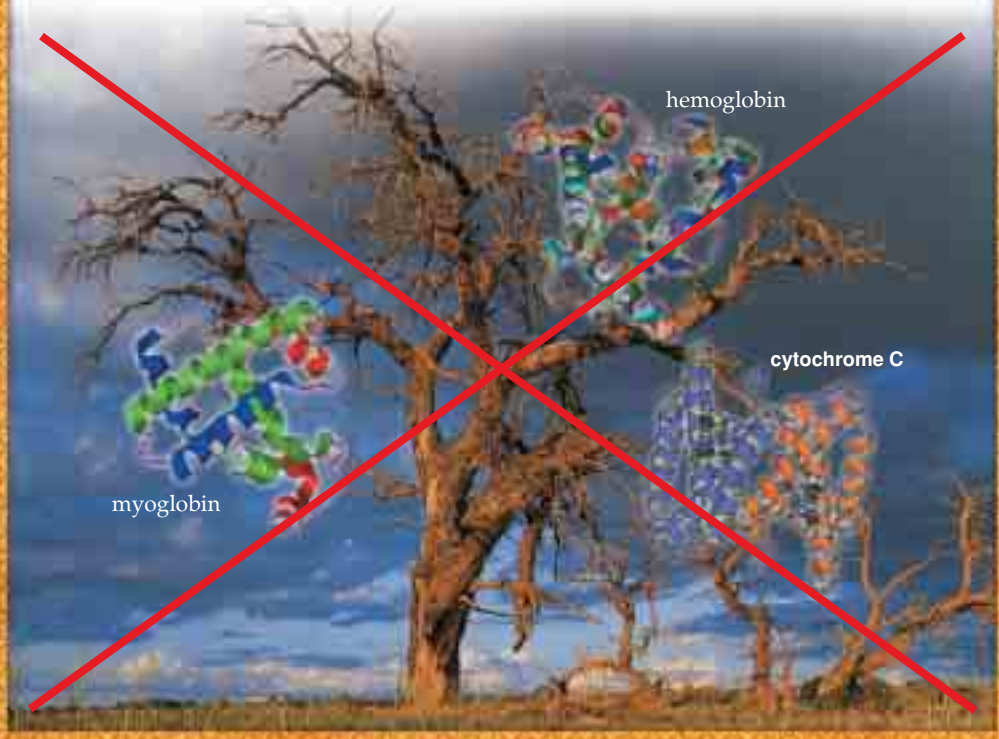
> [T]he differences between sequences from different organisms

could be used to construct a family tree of hemoglobin and myoglobin variation among organisms. This tree agreed completely with observations derived from paleontology and anatomy about the common descent of the corresponding organisms.

Similar family histories have been obtained from the three-dimensional structures and amino acid sequences of other proteins, such as cytochrome c (a protein engaged in energy transfer) and the digestive proteins trypsin and chymotrypsin. The examination of molecular structure offers a new and extremely powerful tool for studying evolutionary relationships. (*Science and Creationism,* p.18)

It is astonishing that the NAS should make such a claim, ignoring important research and findings in this area. In actuality, comparisons of the molecules cited by the NAS actually represent enormous

The so-called family trees obtained from analyses of such molecules as hemoglobin, myoglobin, and cytochrome c conflict both with one another and with other data.



difficulties for the theory of evolution and reveal its inconsistencies. Before examining the contradictions and errors of the NAS and the theory of evolution in this area, let us provide some information about molecular comparisons.

The protein molecules on which the structures and functions of living things depend consist of amino acids. There are 20 kinds of amino acids in proteins. One particular sequence of amino acids might give rise to a fat-digesting protein in the stomach, while another chain of amino acids might cause an oxygen-binding protein molecule to form. Generally speaking, the amino-acid sequence is the same for the same kind of protein in the same species. However, the amino-acid sequence can change between species. This is the case, for instance, with the hemoglobin molecule, which allows oxygen to be carried in the blood. The practice of comparing the differences in a particular protein molecule between species in order to draw conclusions about evolutionary relationships is known as "molecular homology." For instance, the amino-acid sequences of the hemoglobin molecules in human beings, mice, and horses can be identified and compared. According to evolutionists, the protein sequences of species assumed to have a closer evolutionary relationship should be closer to one another. For instance, the sequences in the hemoglobins of human beings and horses should be closer to each other than to those of rats. Yet, research in this field has revealed a conflict between comparisons at the molecular level and the claims of the theory

of evolution. Following are some of the research conclusions that have revealed this contradiction:

• Comparisons carried out on the molecule cytochrome c, cited by the NAS as evidence for evolution, resulted in disappointment for evolutionists. These comparisons showed that the turtle was closer to birds than to the snake, another reptile. Evolutionists had claimed that the protein sequences of the turtle and snake, two reptiles, should be much closer to each another. [2]

• The same research also revealed that chickens exhibit greater similarities to penguins than to ducks. Man emerges as closer to kangaroos than to apes.[3]

• An article in the January 2002 edition of *Popular Science* magazine revealed that the DNA of the "grebe," a bird that looks like a duck was found to be resembling a flamingo.[4]

• As a result of the comparisons of the amino-acid sequence of the hormone LH, amphibians were shown to be closer not to reptiles, as the theory of evolution maintains, but to mammals.[5]

• In comparisons performed on the alpha hemoglobin protein, it was established that the crocodile and the chicken shared at least 15% of their amino-acid sequences. Next came the viper and the chicken (10.5%). The crocodile and the

viper—which, being reptiles, should have had the highest level of similarity—actually possessed a very low level (5.6%). Colin Patterson said that this example had clearly undermined the evolutionists' assumptions.[6]

•In myoglobin comparisons, crocodiles were seen to have a 10.5% similarity to lizards.

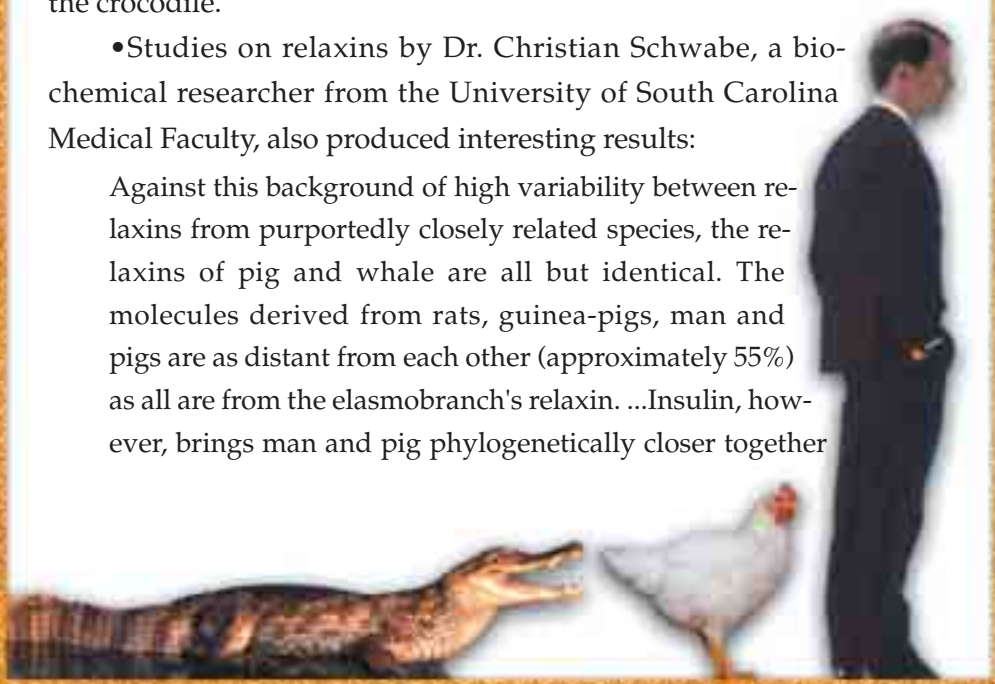
However, the lizard also has a 10.5% similarity to the chicken. In other words, the reptile/reptile level of similarity is the same as the reptile/bird level.[7]

•In comparisons of lysosome and lactalbumin, it emerged that man was closer to the chicken than to the other mammals tested.[8]

•Adrian Friday and Martin Bishop from the University of Cambridge analyzed various tetrapod protein sequences. In an astonishing result, human beings and chickens emerged as each other's closest relatives in almost all examples. The next closest relative was the crocodile.[9]

•Studies on relaxins by Dr. Christian Schwabe, a biochemical researcher from the University of South Carolina Medical Faculty, also produced interesting results:

> Against this background of high variability between relaxins from purportedly closely related species, the relaxins of pig and whale are all but identical. The molecules derived from rats, guinea-pigs, man and pigs are as distant from each other (approximately 55%) as all are from the elasmobranch's relaxin. ...Insulin, however, brings man and pig phylogenetically closer together



than chimpanzee and man. [10]

• In a 1996 study, analyses of 88 protein sequences placed rabbits in the same group as primates, instead of rodents.[11] A 1998 study analyzed 13 genes in 19 species of animals, as a result of which sea urchins were grouped with chordates. Another study in 1998 analyzed 12 proteins, as a result of which cows emerged as closer to whales than to horses.[12]

• As a result of his studies on cytochrome c, Richard Holmquist of the University of California revealed that the biochemical difference between amphibians and reptiles—classes that should be closely related according to the theory of evolution—is greater than the difference between birds and fish, which should be much further apart according to the theory. Indeed, the difference between amphibians and reptiles is even greater than that between mammals and fish or between mammals and insects. The researcher makes the following comments:

In either case, certain anomalies appear in certain vertebrates with respect to the magnitude of these changes and their relationship to time. Such anomalies show up on "phylogenetic trees" as apparently negative rates of

> evolutionary divergence, or incorrect taxonomic placement of an organism in the wrong family...
>
> ... However the difference between the turtle and rattlesnake of 21 amino acid residues per 100 codons is notably larger than many differences between representatives of widely separated classes, for example, 17 between chicken and lamprey, or 16 between horse and dogfish, or even 15 between dog and screw worm fly in two different phyla.[13]

As the numbers of such studies increases, it becomes ever clearer that comparisons at the molecular level conflict with the theory of evolution. Many evolutionist biologists have had to admit this fact. For example, the French biologists Hervé Philippe and Patrick Forterre admitted in an article in 1999 that "with more and more sequences available, it turned out that most **protein phylogenies contradict each other as well as the rRNA tree**." [14]

The molecular biologists James Kale, Ravi Jain, and Maria Rivera from the University of California wrote in 1999:

> …[S]cientists started analyzing a variety of genes from different organisms and found that their relationship to each other contradicted the evolutionary tree of life derived from rRNA analysis alone. [15]

Biologist Carl Woese of the University of Illinois, who is renowned for his work on establishing family trees based on RNA-based comparisons, made the following comment on the conflicting nature of his results in an article published in the NAS's *Proceedings of the National Academy of Sciences* (PNAS):

> No consistent organismal phylogeny has emerged from the many individual protein phylogenies so far produced. Phylogenetic incongruities can be seen everywhere in the universal tree, from its

> root to the major branchings within and among the various [groups] to the makeup of the primary groupings themselves. [16]

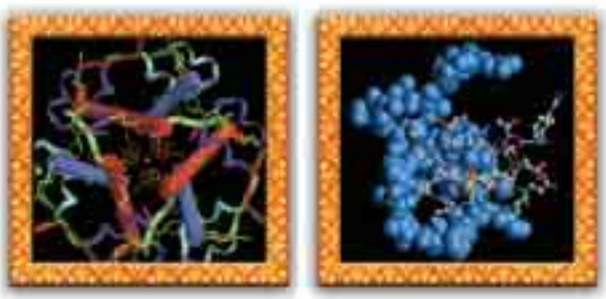
Biologist Michael Lynch states that the results of analyses of the same genes have been as contradictory as those on different genes:

> Clarification of the phylogenetic [i.e., evolutionary] relationships of the major animal phyla has been an elusive problem, with analyses based on different genes and even different analyses based on the same genes yielding a diversity of phylogenetic trees.[17]

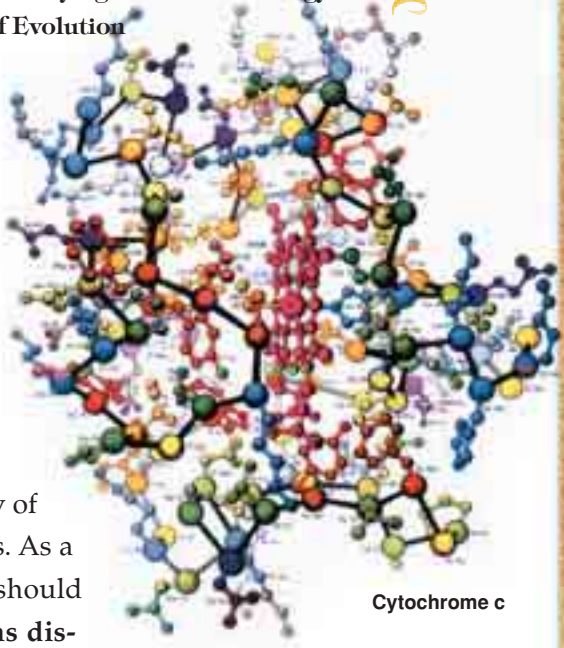
Furthermore, molecular biologist Michael Denton says that comparisons at the molecular level conflict with the theory of evolution:

> However as more protein sequences began to accumulate during the 1960's, it became increasingly apparent that the molecules were not going to provide any evidence of sequential arrangements in nature, but were rather going to reaffirm the traditional view that the system of nature confirms fundamentally to a highly ordered hierarchic scheme from which all direct evidence for evolution is emphatically absent. Moreover the divisions turned out to be more mathematically perfect than even most die-hard typologists would have predicted. [18]

Dr. Schwabe is a scientist who has dedicated years to finding proof of evolution in the molecular field. He has attempted to establish evolutionary relationships between living things by studying proteins such as insulin and relaxin, in particular. Yet he has had to



Basic proteins for life: insulin (left) and relaxin.


Cytochrome c

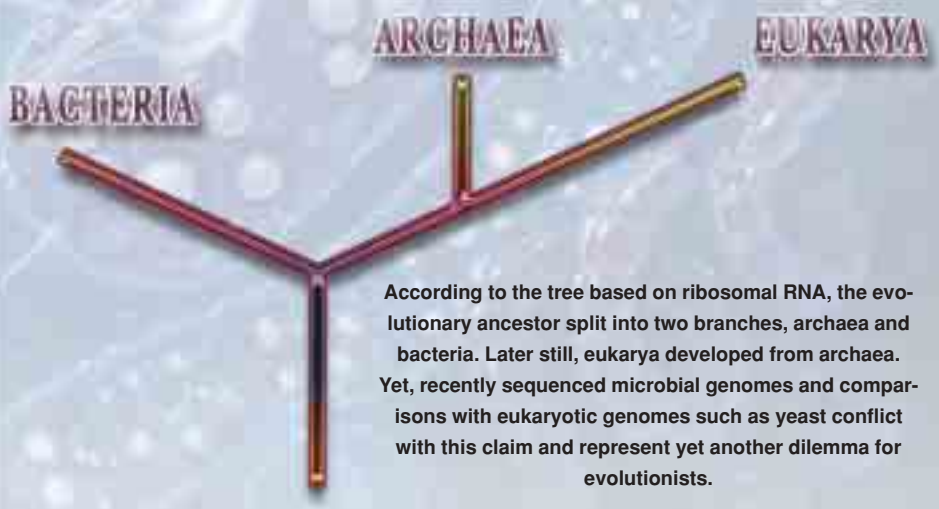
confess several times that at no point has he been able to obtain any evidence for evolution. In an article published in the journal *Science*, he states:

> Molecular evolution is about to be accepted as a method superior to paleontology for the discovery of evolutionary relationships. As a molecular evolutionist I should be elated. Instead **it seems disconcerting that many exceptions exist to the orderly progression of species as determined by molecular homologies**; so many in fact that I think the exception, the quirks, may carry the more important message. [19]

Professor Donald Boulter, of Durham University's Biological Sciences Department, announced in 1980 that the results of his comparisons of amino-acid sequences conflicted with the assumptions of the theory of evolution:

> Initial results obtained by using amino acid sequences of vertebrate cytochrome *c* led to an outline of the phylogeny of the vertebrates which was similar to that derived from fossil evidence. This very encouraging start was soon to change to a less satisfactory one as the results from other proteins were assembled. Amino acid sequence data sets of different proteins did not always lend themselves to the same phylogenetic interpretation or agree with the accepted phylogeny obtained mainly from fossil or morphological characters.[20]

An article headed "Genome Data Shake the Tree of Life," written

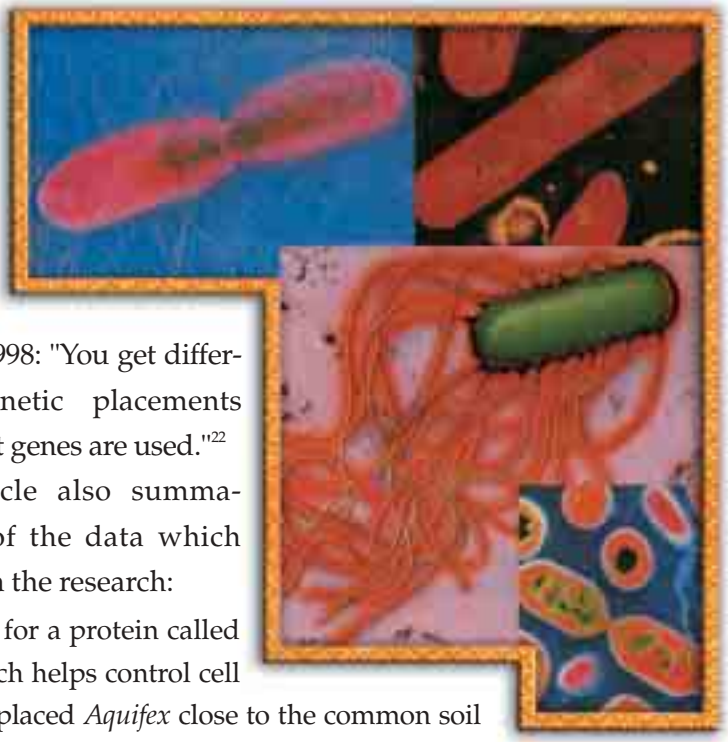


According to the tree based on ribosomal RNA, the evolutionary ancestor split into two branches, archaea and bacteria. Later still, eukarya developed from archaea. Yet, recently sequenced microbial genomes and comparisons with eukaryotic genomes such as yeast conflict with this claim and represent yet another dilemma for evolutionists.

by Elizabeth Pennisi and published in the journal *Science*, revealed that analyses at the molecular level had shaken the evolutionists' so-called evolutionary tree and that the results were contradictory:

> Since then, he [evolutionist Carl Woese] and others have used rRNA comparisons to construct a "tree of life," showing the evolutionary relationships of a wide variety of organisms, both big and small. According to this rRNA-based tree, billions of years ago a universal common ancestor gave rise to the two microbial branches, the archaea and bacteria (collectively called prokarya). Later, the archaea gave rise to the eukarya. But the newly sequenced microbial genomes and comparisons with eukaryotic genomes such as yeast have been throwing this neat picture into disarray, raising doubts about the classification of all of life.[21]

Pennisi stated that the bacterium *Aquifex aeolicus*, which lives at a temperature close to boiling point and whose DNA sequence has been unravelled, made concrete the problems facing molecular evolutionists. Robert Feldman, a molecular geneticist and one of the scientists involved in the study of the bacterium, summed up his results at the Conference on Microbial Genome held at Hilton Head, North Carolina,



in February 1998: "You get different phylogenetic placements based on what genes are used."[22]

The article also summarized some of the data which emerged from the research:

> The gene for a protein called FtsY, which helps control cell division, placed *Aquifex* close to the common soil microbe *Bacillus subtilus*, even though the two supposedly come from different branches of the bacterial tree. Even worse, a gene encoding an enzyme needed for the synthesis of the amino acid tryptophan linked *Aquifex* with the archaea. That wasn't the only anomaly the Diversa team found regarding the archaea, however. Their analysis of the gene encoding the enzyme CTP synthetase, which helps make the building blocks of DNA, spread the archaea out among all the other organisms evaluated, suggesting that they may not be as coherent and distinct a group as the rRNA tree implies.[23]

Another scientist whose views were cited in Pennisi's article was the Ohio State University microbiologist John Reeve. He said:

> Before, people tended to equate rRNA trees with the [life history] tree of the organism. From the whole genomes, you very quickly come across [genes] that don't agree with the rRNA tree.[24]

SIMILARITIES DO NOT MEAN AN EVOLUTIONARY RELATIONSHIP

Evolutionists suggest a so-called evolutionary relationship between living things on the basis of certain genetic or morphological similarities between them. However, research in recent years has shown that genetic and morphological studies do not represent evidence for the claim that there is an evolutionary relationship between living species.

Same Genes, Different Appearance:

One of the latest studies in this area was carried out by the US National Science Foundation. The research, led by the evolutionary biologist Blair Hedges from Penn State University, compared the genes of aquatic birds. It emerged from this study that birds claimed to be members of the same family actually bore no similarity to one another at all from the genetic point of view. The study summarized its conclusions in

these terms:

> The genes of aquatic birds have revealed a family tree dramatically different from traditional relationship groupings based on the birds' body structure.[1]

Until recently, evolutionists constructed phylogenetic relationships between species by comparing physical characteristics. Thanks to DNA analyses, however, researchers have finally realized that that the evolutionary family trees drawn up on the basis of physical features are invalid.

Among the surprising findings made by researchers was that there is no physical similarity between creatures with very similar genes:

> The most startling and unexpected finding of the study is that the closest living relative of the flamingo, with its long legs built for wading, is not any of the other long-legged species of wading birds but the squat grebe, with its short legs built for diving.[2]

The evolutionary biologist Blair Hedges expressed his astonishment at this surprising finding:

> The two species—whose genes are more similar to each other's than to those of any other bird—otherwise show no outward resemblance.[3]

Molecular comparisons revealed that the nearest relative of the flamingo is a small diving bird with short legs designed for that purpose. This result conflicts with the evolutionary family tree.

Same Appearance, Different Genes:

A similar finding emerged with the discovery of a new species of salamander in Mexico. The scientists first imagined that they had found a specimen of a known salamander, but following DNA analysis they concluded that they were mistaken. That was because although the appearance of the soil dwelling salamander they had found was identical to known salamanders, genetically it was very different. The National Science Foundation announced the following conclusion:

> The soil dwelling salamander looks identical to one living in mountain foothills several hundred miles away. But DNA analysis by NSF-funded zoologists at the University of California at Berkeley shows them to be a distinct species.[4]

This led to an astonishing conclusion: despite being identical to each another, the two creatures had to be classified as different species at the genetic level. David Wake of the University of California at Berkeley, the biologist in charge of the research, openly stated the conclusion he had reached: They are not one another's closest relatives.

External similarity does not therefore imply genetic similarity. This outcome is surprising to the experts, because the fact that two species are genetically very different certainly means that they did not evolve from a common ancestor, and that there is no phylogenetic relationship between them.

In the light of these evaluations, the so-called evolutionary relationships assumed by evolutionists based on morphological or genetic similarities have been shown to be invalid. Therefore, all the family trees so far drawn up are without scientific foundation and rest solely on evolutionist preconceptions.

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1. Cheryl Dybas, Genes of Aquatic Birds Reveal Surprising Evolutionary History, *National Science Foundation – News Tip*, August 1, 2001
2. Cheryl Dybas, Genes of Aquatic Birds Reveal Surprising Evolutionary History, *National Science Foundation – News Tip*, August 1, 2001
3. Cheryl Dybas, Genes of Aquatic Birds Reveal Surprising Evolutionary History, News Tip, August 1, 2001
4. Cheryl Dybas, "New" Salamanders Turn Up from DNA Analysis, *National Science Foundation – News Tip*, August 1, 2001

The Cytochrome C/Hemoglobin Error

It is claimed in the NAS booklet that the family trees obtained from comparing molecules such as cytochrome c and hemoglobin provide proof of the theory of evolution. According to this claim, the similarities between the amino-acid sequences of these molecules in living things show that they evolved from one another. This claim is totally false. The fact that there are some similarities between molecules like cytochrome c or hemoglobin in some species is no proof that the creatures in question evolved from one another.

First and foremost, it needs to be made clear that, as we have just seen, comparisons performed on other molecules give very different and conflicting results, incompatible with any evolutionist picture.

What biochemists have found with their comparisons of certain proteins like cytochrome c and hemoglobin is this: It is possible to classify species into groups according to their molecular structure. These groups are compatible with the groups produced by comparative anatomy. However, the interesting thing in such a protein "atlas" is that these groups or subclasses are totally isolated from one another. No intermediate forms are to be found between groups—just as there are no transitional forms either in the fossil record or among living groups today. Species are always separated from one another by definitive lines of division.

The Australian biochemist Michael Denton draws attention to the fact that tables such as the *Dayhoff Atlas of Protein Structure and Function*, which show divergence of the cytochromes, reveal the absence of any such transitional forms in the clearest way possible.[25]

Here is another noteworthy point in this connection: According to evolutionists, the most primitive organisms—those lacking a cell nucleus—are prokaryotes, or bacteria. Higher organisms with a nu-

MAMMALS

Human	65
Monkey	64
Pig	64
Horse	64
Dog	65
Whale	65
Rabbit	64
Kangaroo	66

BIRDS

Chicken	64
Penguin	64
Duck	64
Pigeon	64

REPTILES

Turtle	64
Rattlesnake	66

AMPHIBIANS

Bullfrog	65

YEASTS

Candida krusei	72
Debaryomyces kloeckeri	67
Baker's yeast	69
Neurospora crassa	69

TELEOSTS

Tuna	65
Bonito	64
Carp	64

ELASMOBRANCHS

Dogfish	65

CYCLOSTOMES

Lamprey	66

INSECTS

Fruit Fly	65
Screw-worm	64
Silkworm	65
Tobacco Horn Worm Moth	64

ANGIOSPERMS

Mung-bean	66
Sesame	65
Castor	69
Sunflower	69
Wheat	66

A table listing thirty-three comparisons between bacterial cytochrome c of *Rhodospirillum rubrum*, and the cytochrome c of other living things. As can be seen from this table, every class is definitively separated from the other classes, and no intermediate forms can be seen at the molecular level. All the sequences of every subclass are equidistant from the members of the other groups. In other words, the molecular sequences of classes that should be more closely related according to the evolutionists' claims are not in reality closer to one another. [26]

cleus in the cell, from yeasts to human beings, are known as eukaryotes. If all eukaryotes evolved from bacteria, as evolutionists would have us believe, then one would expect to see a graduated divergence in their proteins such as cytochrome c. Yet, what we actually find is this: the cytochrome c of all the main classes—from human beings to kangaroo, from the fruit fly to the chicken, from the sunflower to the rattlesnake, and from the penguin to baker's yeast—all exhibit the same degree of divergence from the cytochrome c molecules of bacteria (varying between 65 and 69%).

Michael Denton offers the following comment:

> Eucaryotic cytochromes, from organisms as diverse as man, lamprey, fruit fly, wheat and yeast, all exhibit a sequence divergence of between sixty four per cent and sixty seven per cent from this particular bacterial cytochrome. Considering the enormous variation of eucaryotic species from unicellular organisms like yeasts to multicellular organisms such as mammals, and considering that eucaryotic cytochromes vary among themselves by up to forty-five per cent, this must be considered one of the most astonishing findings of modern science.[27]

What is even more extraordinary is that there is no evidence in biochemistry of the most fundamental evolutionary scheme—the transitions from fish to amphibians, from amphibians to reptiles, and from reptiles to mammals. The protein divergence of land vertebrates like amphibians, reptiles, and mammals, when compared to those of fish, all appear isolated to exactly the same degree. The gradual divergence envisaged by evolutionary sequence is not observed.

From the point of view of their cytochrome c, horses, rabbits, frogs, and turtles are 13% divergent from the carp. Denton says:

> At a molecular level, there is no trace of the evolutionary transition from fish to amphibian to reptile to mammal. So amphibia, always

traditionally considered intermediate between fish and the other terrestrial vertebrates, are in molecular terms as far from fish as any group of reptiles or mammals.[28]

As we have seen, the "facts" from molecular biology that the NAS portrays as evidence for the theory of evolution are all either errors or else deliberate distortions by evolutionist scientists.

The Pseudogene Error

Another of the aspects of molecular biology that the NAS represents as proof of the theory of evolution is the sequences of DNA known as "pseudogenes," which are claimed to have no function. (*Science and Creationism*, p. 20)

As we know, the proteins in an organism's body are produced by means of the information coded in its genes. Pseudogenes are assumed to play no role in the production of protein, or anything else, and are therefore regarded as "functionless."

The concept of pseudogenes is actually part of the "junk DNA" thesis, which maintains that there are parts of DNA which serve no purpose. The fact is, however, that this thesis was revealed to be totally mistaken by a series of discoveries beginning in the second half of the 1990s. The DNA sequences that were alleged to be "junk" were all found, one by one, to perform very important functions in cells and the body. Findings from 1992 revealed that the genes described as junk actually contained vital codes with information about the general structure of the body and about the timing of when other genes should be switched on and off. According to the *Washington Post*, **"Key scientists said the new discoveries were likely to force them to abandon the term 'Junk DNA.' "** [29]

Then again, even if there really were pseudogenes within the cell, they would still avail the theory of evolution nothing.

The reason why evolutionists regard pseudogenes as proof of

descent from a common ancestor is that they consider them to be errors in DNA caused by mutations. They suggest that it is impossible for similar errors to arise in different species, for which reason these errors must have been handed down over the generations throughout the evolutionary process. The fact is, however, that there is a great of evidence to disprove that claim. For example:

1. Some gene regions are more disposed to mutation. It is therefore no surprise that the same gene regions should have mutated in different species, and this does not require descent from a common ancestor.

2. The evidence that pseudogenes, alleged to be functionless, actually do serve a purpose is, as we have seen, increasing day by day.

3. The phylogenetic trees constructed suing pseudogenes both are internally inconsistent and also conflict with other phylogenetic trees.

1. The fact that some gene regions are more disposed to mutations invalidates the evolutionists' claims about pseudogenes. It has been established that there are "popular mutation points" in many genes and pseudogenes.[30] This means that some regions in DNA sequences are more disposed than others to undergo mutation, and these are mutations which have no effect on the organism. It is therefore probable that these regions in the DNA of different living things have been subjected to mutation and that the same nucleotides have changed. It is illogical to claim solely on the basis of these similar mutations that these living things descended from a common ancestor.[31]

2. The evidence that pseudogenes, alleged to be functionless, actually do serve a purpose is, as we have seen, increasing all the time.

The reason why evolutionists portray pseudogenes as evidence for the theory of evolution is that they assume them to have no function. However, as was made clear at the beginning, many pseudogenes believed to be functionless have actually turned out to be nothing of the sort. Evidence of this kind is increasing all the time. Moreover, as some scientists have stated, the fact that these DNA sequences have never been observed to encode proteins in an experimental environment does not mean they lack the ability to do so. Indeed, A.J. Mighell, of the Leeds University Molecular Medicine Department, has this to say on the subject:

In these and other examples it cannot be stated with certainty that a gene is unequivocally either a pseudogene or a gene. It is possible that analysis has not been performed in the ap-

propriate temporo-spatial conditions to detect expression.[32]

E. Zuckerkandl, G. Latter, and J. Jurka criticize the way in which the claim that pseudogenes have no function is treated as an established fact,

> DNA not known to be coding for proteins or functional RNAs, especially pseudogenes, are now at times referred to in publications simply as nonfunctional DNA, **as though their nonfunctionality were an established fact.**[33]

In fact, one of the best-known pseudogene groups, Alu, had always been regarded as functionless and was only recently proved to serve a purpose after all.[34] It is also thought that some pseudogenes and RNA have a mutual effect on one another.[35] Some pseudogenes, it is believed, also have a function as sources of information for forming genetic variety.[36]

It is thought that some parts of pseudogene sequences are copied to functional genes and produce various forms of the functional sequence. This has been reported several times. Examples include the immunoglobins of mice[37] and birds[38], mouse histone genes,[39] horse globin genes,[40] and human beta globin genes.[41]

Some pseudogenes have been observed to be linked to gene regulation.[42] A role of this kind may include competition for regulatory proteins, the production of signal RNA molecules and other mechanisms.[43]

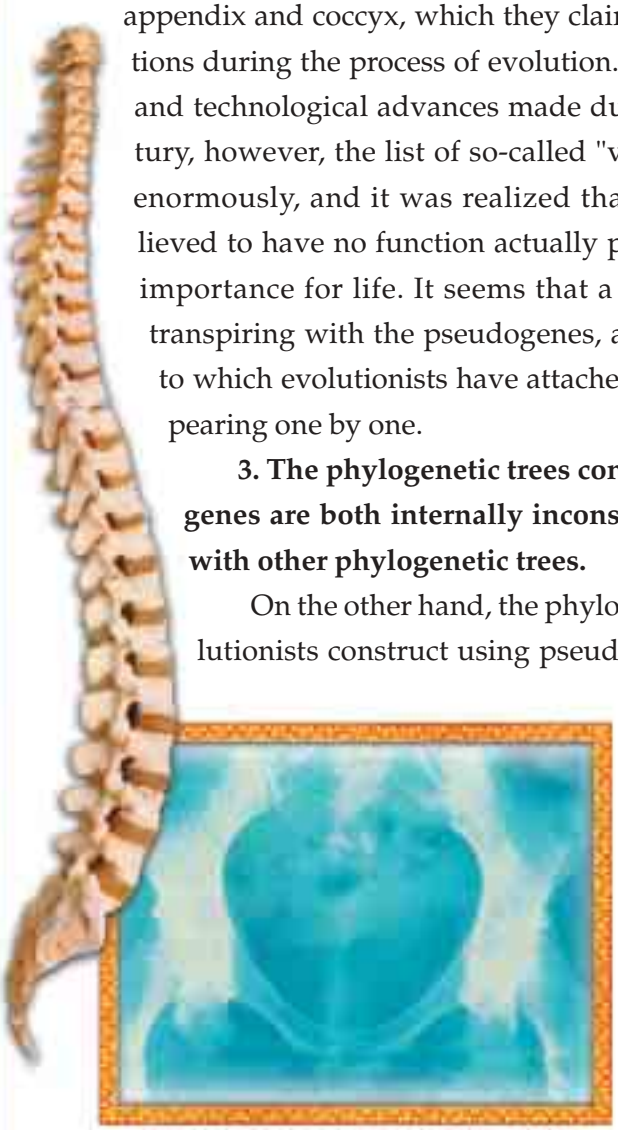
All these examples are sufficient to undermine the claim that there are "pseudogenes" in living things. A great deal of evidence has now been accumu-

lated with regard to pseudogenes, which shows that the claim that pseudogenes are not beneficial cannot be trusted.

In the nineteenth century, evolutionists produced a list of hundreds of supposedly atrophied organs in the human body, such as the appendix and coccyx, which they claimed had lost their functions during the process of evolution. Thanks to the scientific and technological advances made during the twentieth century, however, the list of so-called "vestigial" organs shrank enormously, and it was realized that organs originally believed to have no function actually possess features of great importance for life. It seems that a similar process is now transpiring with the pseudogenes, and the so-called proofs to which evolutionists have attached their hopes are disappearing one by one.

3. The phylogenetic trees constructed using pseudogenes are both internally inconsistent and also conflict with other phylogenetic trees.

On the other hand, the phylogenetic trees which evolutionists construct using pseudogenes conflict both in-



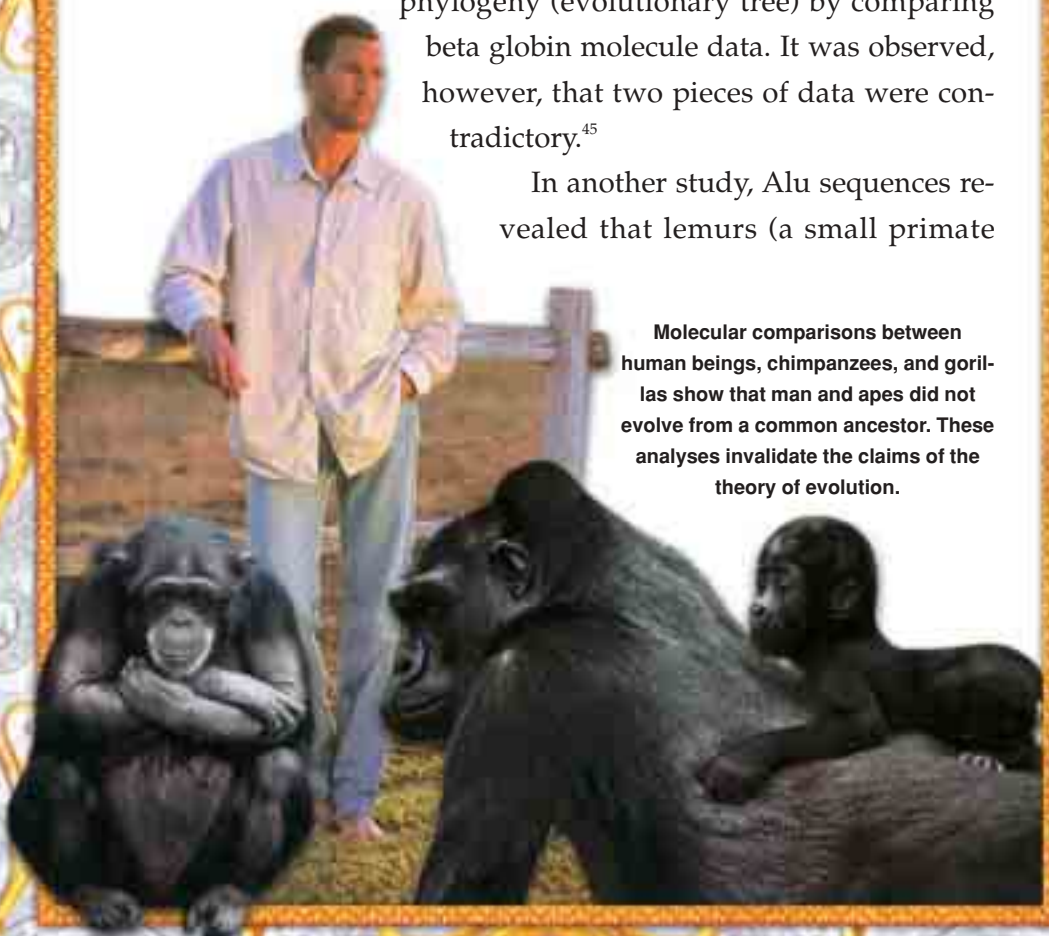
AN X-RAY OF THE COCCYX

In the nineteenth century, evolutionists produced lists of hundreds of "vestigial organs," which they used as evidence for evolution. This list grew increasingly shorter during the twentieth century, however, when it was established that organs believed to be functionless actually had very important uses for the body. The coccyx is one of these.

ternally and with other evolutionary trees. For example, a recent article entitled "How Reliable Are Human Phylogenetic Hypotheses?," authored by M. Collard and Bernard Wood and published in the NAS's own publication, *PNAS*, makes clear that according to the evolutionary tree constructed on the basis of pseudogenes, human beings emerged before chimpanzees and gorillas. However, according to the evolutionists' own claims, the chimpanzee and gorilla emerged before man.[44]

Of course, inconsistencies of this kind are not peculiar to comparisons made among the human-chimpanzee-gorilla threesome. For instance, an attempt has been made to construct a general primate phylogeny (evolutionary tree) by comparing beta globin molecule data. It was observed, however, that two pieces of data were contradictory.[45]

In another study, Alu sequences revealed that lemurs (a small primate



Molecular comparisons between human beings, chimpanzees, and gorillas show that man and apes did not evolve from a common ancestor. These analyses invalidate the claims of the theory of evolution.

Some pseudogene sequences are shared by such very different creatures as rodents and ink fish. This is just one of the many examples demonstrating that pseudogenes represent no evidence for evolution.

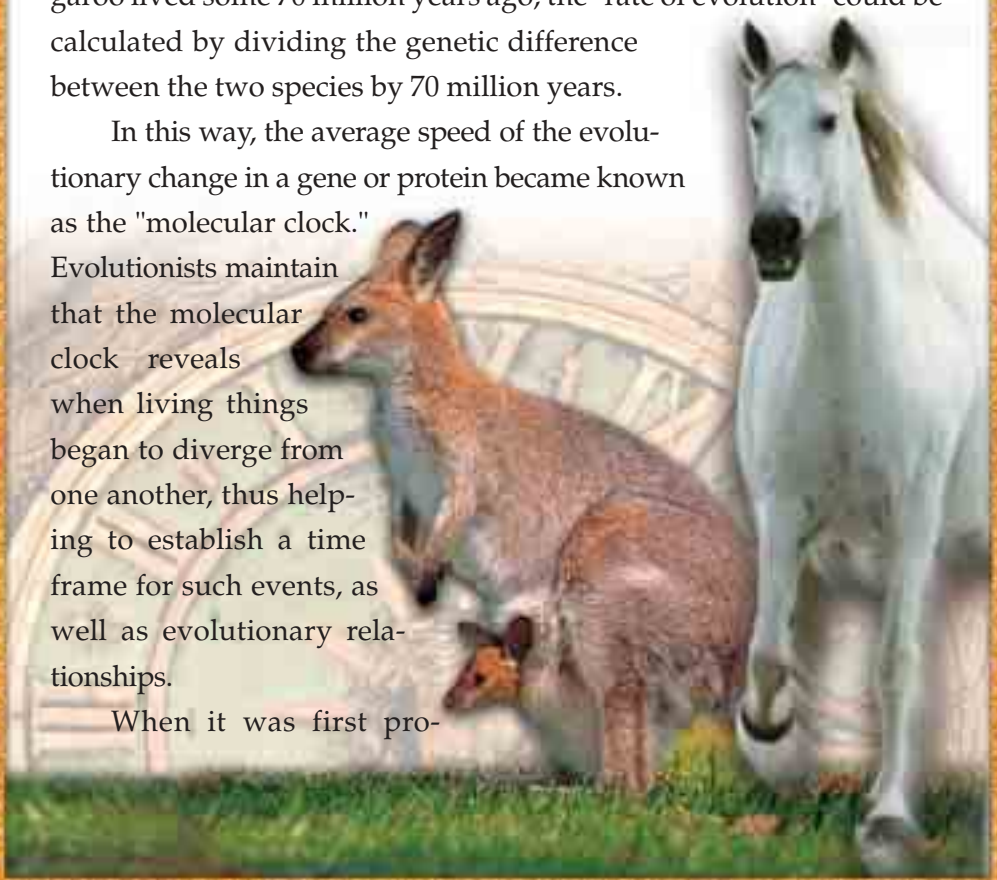
species) and hominids (man) are sibling groups.[46] This conclusion, however, conflicts with data which locate the lemur in a different place in the primate phylogeny. The presence of similar pseudogenes in phyla which are regarded as evolutionarily far removed from one another is something evolutionists cannot account for.[47] A new example of this is the SINE sequences, a particularly surprising discovery. These pseudogene sequences are shared among living things far removed from each other in evolutionary terms, such as trout[48], rodents, and inkfish.[49]

The contradictions seen in the phylogenetic trees constructed using other molecules can also be seen in those built on the basis of pseudogenes. These facts are quite sufficient to show that pseudogenes do not represent evidence of descent from a common ancestor.[50]

The Molecular Clock Error and Still More Circular Reasoning

Another phenomenon that the NAS puts forward as proof of evolution is the so-called "molecular clock" (*Science and Creationism*, p. 19), which was first suggested in the mid-1960s. This hypothesis assumed that a comparison of genetic differences between living species regarded as being close evolutionary relatives, together with the "divergence" periods among living things identified from the fossil record, could be used to calculate a definite "rate of evolution." For example, assuming that all mammals descended from a common ancestor, as well as that the common ancestor of the horse and the kangaroo lived some 70 million years ago, the "rate of evolution" could be calculated by dividing the genetic difference between the two species by 70 million years.

In this way, the average speed of the evolutionary change in a gene or protein became known as the "molecular clock." Evolutionists maintain that the molecular clock reveals when living things began to diverge from one another, thus helping to establish a time frame for such events, as well as evolutionary relationships.



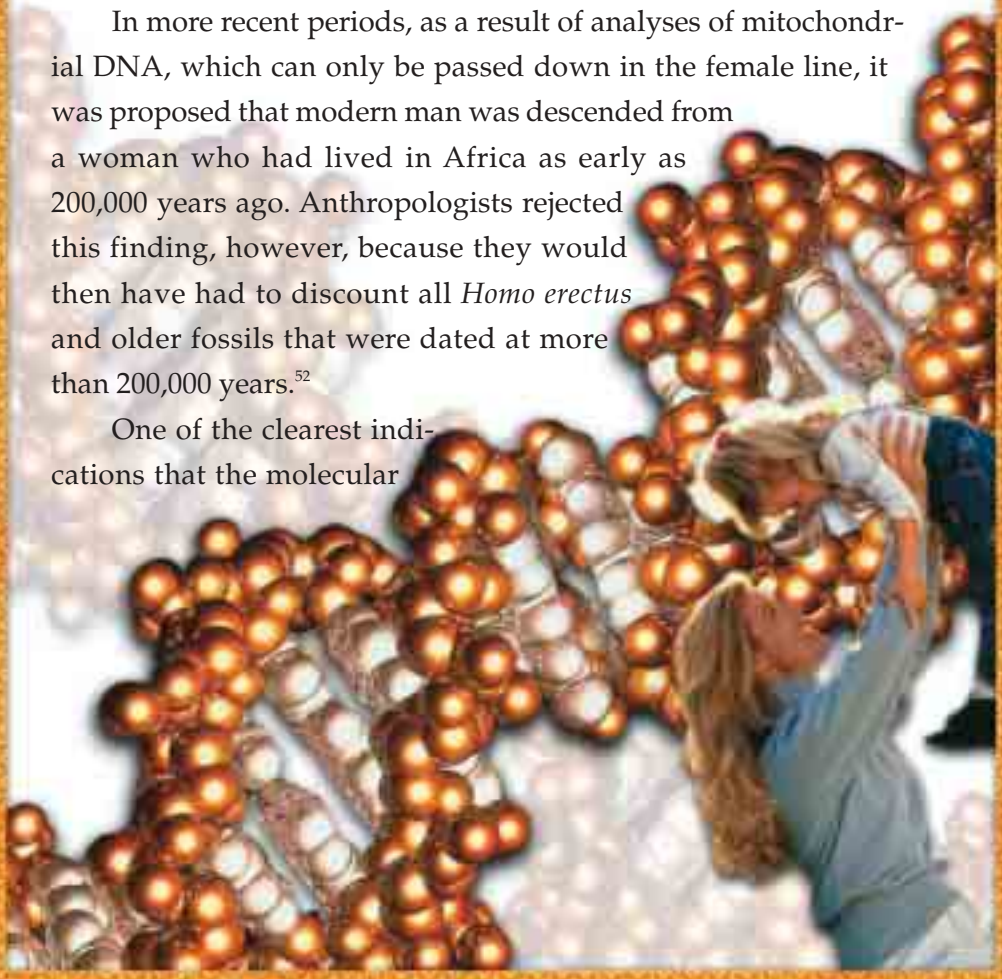
When it was first pro-

posed, this hypothesis was greeted by evolutionists with great enthusiasm as a major trump card to be used against creationists. However, soon afterwards it emerged that it clashed with the data, especially with molecular evolutionary theories and paleontological findings.

Both the numbers and the family trees produced by using the molecular clock are at wide variance with the fossil record. For instance, paleontologists believe that human beings and apes split apart from one another at least 15 million years ago. According to the molecular clock, however, this split should have taken place only 5 to 10 million years ago.[51]

In more recent periods, as a result of analyses of mitochondrial DNA, which can only be passed down in the female line, it was proposed that modern man was descended from a woman who had lived in Africa as early as 200,000 years ago. Anthropologists rejected this finding, however, because they would then have had to discount all *Homo erectus* and older fossils that were dated at more than 200,000 years.[52]

One of the clearest indications that the molecular



Norman Pace

clock method is unreliable was reported in an article in *Science* in 1996. The article described how the biochemist Russell Doolittle and his team had used the molecular clock method to propose that single-cell creatures with a nucleus (eukaryotes) split off from those without a nucleus, such as bacteria (prokaryotes), some 2 billion years ago. However, using a different clock, the evolutionist microbiologist Norman Pace suggested that this event took place 3 to 4 billion years ago (even though it is generally accepted that life on Earth goes back no further than 3.7 billion years). On the other hand, the microfossil expert William Schopf rejected both results and claimed that the oldest fossils of bacteria are 1.5 billion years older than the date given by Doolittle. In the face of this claim, Doolittle expressed his doubts as to whether these fossils were real.[53] As we can see, the use of the molecular clock produces results that not only are internally inconsistent, but also openly conflict with the fossil record.

In addition, the biochemists C. Schwabe and G. W. Warr state that their analyses of relaxin (a hormone secreted in the final days of pregnancy) are not compatible with the "evolutionary clock model."[54]

The DNA analyses by the researchers L. Vawter and W. M. Brown produced results that were totally outside evolutionists' expectations; as a result, these researchers call for the molecular clock hypothesis to be totally abandoned:

> [The] disparity in relative rates of mitochondrial and nuclear DNA divergence suggests that the controls and constraints under which the mitochondrial and nuclear genomes operate are evolving independently, and **provides evidence that is independent of fossil**

dating for a robust rejection of a generalized molecular clock hypothesis of DNA evolution. [55]

Even evolutionist researchers thus accept that the results obtained from the molecular clock are not trustworthy.

Another reason why the molecular clock hypothesis is not to be trusted is that the techniques used to measure the molecular distance between living species are not accurate. Professor James S. Farris of the Swedish Museum of Natural History states:

> It seems that the only general conclusion one can draw is that nothing about present techniques for analyzing molecular distance data is satisfactory . . . None of the known measures of genetic distance seems able to provide a logically defensible method, and it appears that some altogether different approach will have to be adopted for analyzing electrophoretic data.[56]

Farris's criticisms of the techniques in question are widely respected because he himself developed one of the most frequently employed techniques for measuring genetic distance.

Professor Siegfried Scherer, director of the Institute of Microbiology at the Technical University of Munich, emphasizes the unreliability of the molecular clock in these terms:

> Considering the strong demands usually applied in experimental biology, it is hard to understand why the [molecular clock] concept survived such a long period at all. It can neither be used as a tool for dating phylogenetic splits nor as reliable supportive evidence for any particular phylogenetic hypothesis. . . . A reliable molecular clock with respect to protein sequences seems not to exist. . . . It is concluded that the protein molecular clock hypothesis should be rejected.[57]

In short, the evolutionists' molecular clock does not work. According to Denton, the concept of the molecular clock consists of "apologetic tautologies." Denton criticizes the theory of evolution in

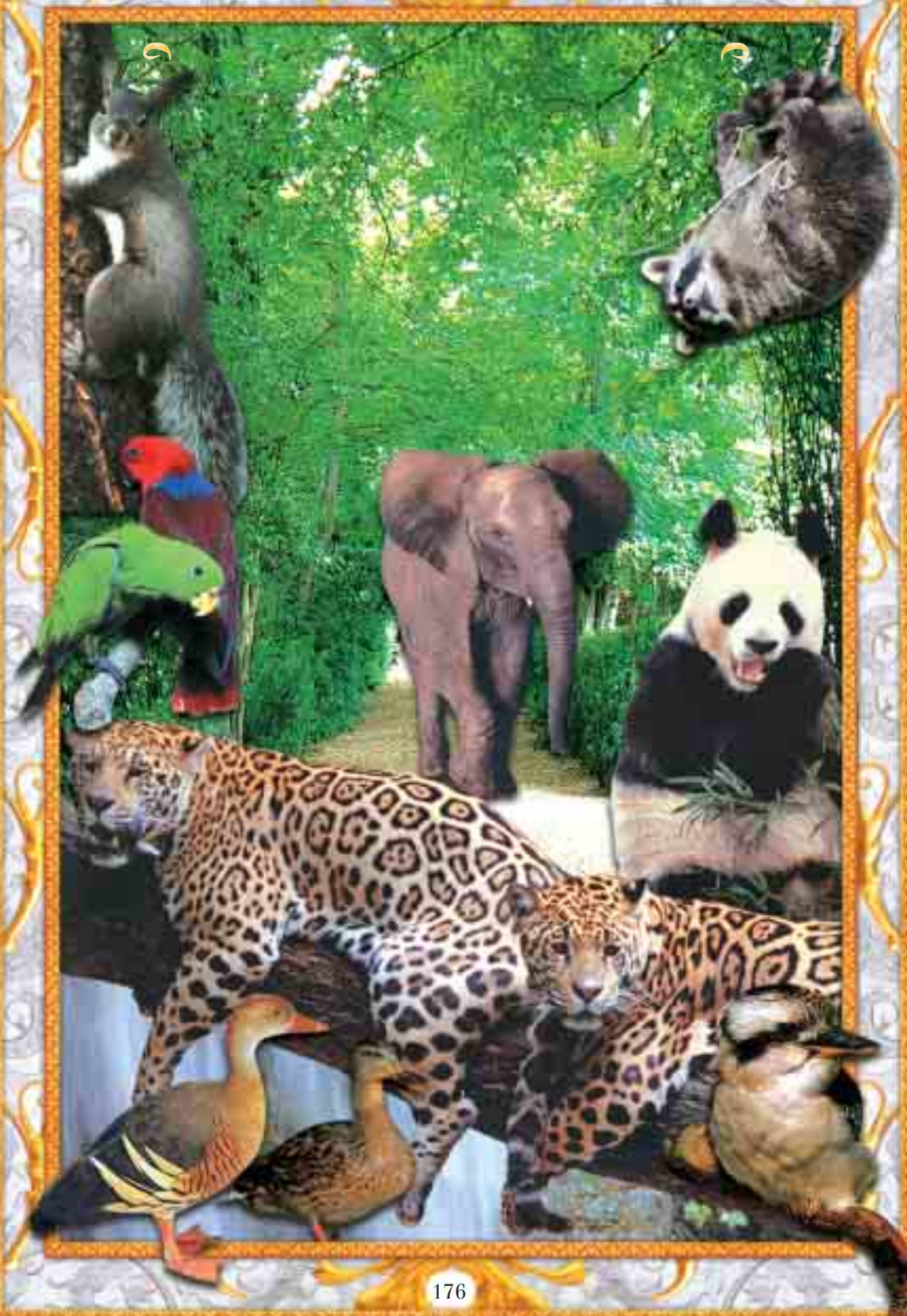
these terms:

> The hold of the evolutionary paradigm is so powerful that an idea which is more like a principle of medieval astrology than a serious twentieth-century scientific theory has become a reality for evolutionary biologists.[58]

No matter how much the concept of the molecular clock is given an extraordinary scientific and technical gloss, it is still, as Denton has made clear, the product of circular reasoning and actually explains nothing. That is because in order to construct a molecular clock, one must first accept the claim that living things descended from a common ancestor. Evolutionists first construct molecular clocks on the basis of their preconception, and then use them, just as the NAS authors do, as proof of descent from a common ancestor. Phillip Johnson describes how evolutionists seek to impress people with this theory, which may look very scientific, but is in reality an empty shell:

> Darwinists regularly cite the molecular clock findings as the decisive proof that "evolution is a fact." The clock is just the kind of thing that intimidates non-scientists: it is forbiddingly technical, it seems to work like magic, and it gives impressively precise numerical figures. It comes from a new branch of science unknown to Darwin, or even to the founders of the neo-Darwinian synthesis, and the scientists say that it confirms independently what they have been telling us all along. The show of high-tech precision distracts attention from the fact that the molecular clock hypothesis assumes the validity of the common ancestry thesis which it is supposed to confirm.[59]

As Johnson makes clear, the complex-appearing calculations that so impress people cause them to believe that the molecular clock is a scientific hypothesis that actually illuminates extraordinary truths. The fact is, however, as we have already seen, that the concept of the molecular clock employs circular reasoning, and is incapable of pro-



viding any evidence for the theory of evolution. The NAS authors continue this "maybe-they'll-believe-it" logic throughout the chapter in question, setting out their so-called proofs one after the other.

The Purported Evolutionary Relationship Between Whales And Hippopotamuses

At the end of the chapter "New Proofs from Molecular Biology," a claim is made that flies in the face of the scientific facts. The NAS claims that comparisons of certain milk protein genes show that the ancestor of the whale is the hippopotamus, and that this claim is also supported by the fossil record. The truth, however, is that the scientists who actually carried out this research, as well as experts on the origin of whales, do not share the views of the NAS. Scientists at the Tokyo Institute of Technology who carried out the research, which was published in the August 14, 1997, issue of *Nature*, wrote at the end of their article that the hippopotamus origin of the whale is incompatible with both the fossil record and morphological comparisons:

> **The conclusions from our retropositional analysis are inconsistent with earlier morphologically based hypotheses.** Paleontological and morphological data suggest that modern whales originated from the Archaeocetes (primitive aquatic cetaceans), which first appeared in the early Eocene epoch. The Archaeocetes are believed to have originated from mesonychians [a family of odd-toed ungulates], which appeared before the Eocene. However, the most primitive artiodactyls [even-toed ungulates] (Dichobunids) first appeared in the early Eocene, and the origin of nearly all the families of artiodactyls can only be traced back to the middle or the late Eocene. **Such a sequence of appearance of these animals is inconsistent with our molecular data...** We believe that recent molecular data will lead to the reinter-

pretation by palaeontologists of many fossil records of Artiodactyla to match our conclusions. Extensive morphological reversals and convergences, as well as large gaps in the fossil record, will then have to be acknowledged.[60]

Michel C. Milinkovitch, of the Molecular Biology Department of the University of Brussels, and J.G.M. Thewissen of Northeastern Ohio Medical School, wrote in the same issue of *Nature* that the Japanese scientists' findings on the origin of the whale conflicted with both morphological and paleontological data, contrary to the claims of the NAS:

> The molecular analyses of Shimamura et al.3, reported on page 666 of this issue, further disrupt phylogenetic dogma. Indeed, not only do the authors confirm the close relationship between artiodactyls and cetaceans, but they propose that cetaceans are deeply nested within the phylogenetic tree of the artiodactyls. **These results strikingly contradict the common interpretation of the available morphological data**

An artiodactyl

> **(supporting artiodactyl monophyly [common descent])** and, if correct, would make a cow or a hippopotamus more closely related to a dolphin or a whale than to a pig or a camel.[61]

Furthermore, these scientists acknowledge that this matter is still subject to debate saying:

> But the issue is still controversial, because the exact means by which molecular sequence data should be analyzed remains debated.[62]

Analyses of other molecules have similarly produced contradictory findings. The zoologist John Gatesy states that analyses of sea mammals' blood coagulation protein have presented an evolutionary link between whales and hippopotamuses, but that this conflicts with the paleontological findings.[63]

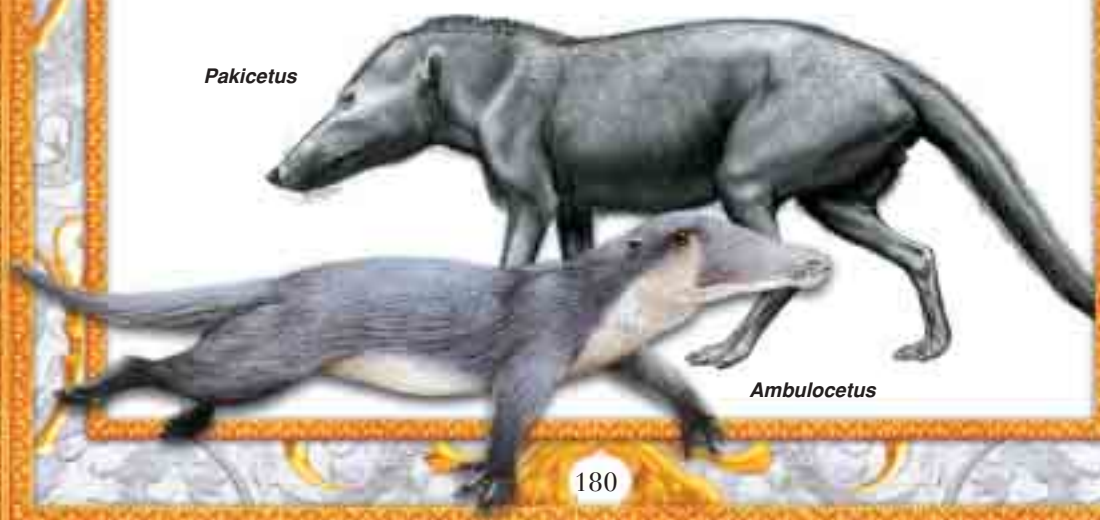
As we have seen, the scientists who actually did the research openly state that the molecular comparisons performed in order to discover the origin of the whale conflict with morphological and paleontological findings. The NAS, on the other hand, adopts the opposite point of view, despite that fact that the truth of the matter is well known. It is evident that this is not a question of lack of knowledge, because the NAS claims to be one of the world's foremost scientific institutions. It appears that the NAS is deliberately making groundless claims to convince people with no knowledge of the subject, who have no means of checking the veracity of what they read, or feel no need to, that evolution is true.

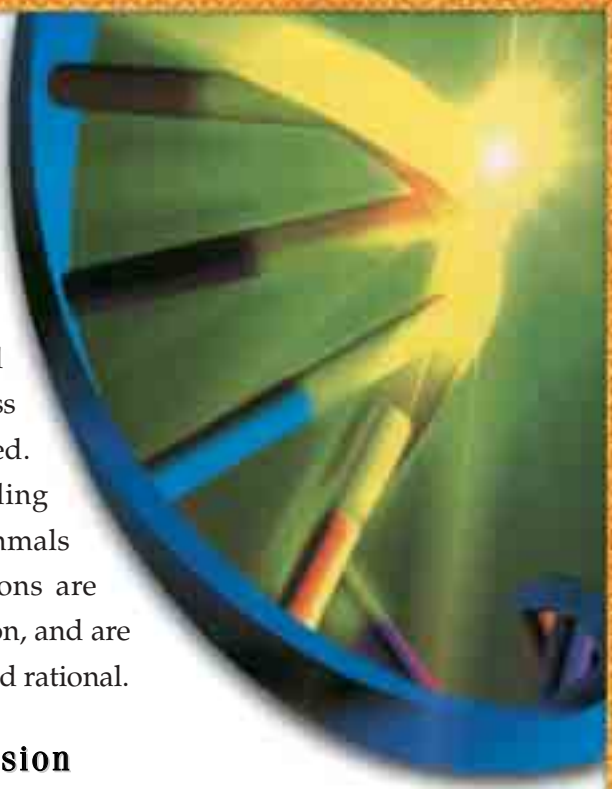
We have already examined the invalidity of the evolutionist theses on the subject of the origin of whales in our article "A Whale Fantasy From *National Geographic*." (www.harunyahya.com/70national_geographic_sci29.html) As we have explained there in some detail, the thesis that whales evolved from terrestrial mammals is a tale devoid of any scientific foundation. There are considerable mor-

phological differences between the oldest whales and such extinct land mammals as *Pakicetus* and *Ambulocetus*, which are suggested as the whale's terrestrial ancestors. On the other hand, the "adaptive processes" proposed by evolutionists for "the evolution of the whale" constitute an unscientific scenario based on Lamarckian reasoning.

Sea mammals possess exceedingly distinct features. To claim that these creatures underwent the dozens of different adaptations necessary for the transition from land to sea as the result of morphological deformities brought about by random mutations is itself a major problem for the theory of evolution. The theory is quite unable to explain how such a transition might have come about. In 1982, the evolutionist science writer Francis Hitching said this on the subject:

> The problem for Darwinians is in trying to find an explanation for the immense number of adaptations and mutations needed to change a small and primitive earthbound mammal, living alongside and dominated by dinosaurs, into a huge animal with a body uniquely shaped so as to be able to swim deep in the oceans, a vast environment previously unknown to mammals . . . all this had to evolve in at most five to ten million years—about the same time as the relatively trivial evolution of the first upright walking apes into ourselves.[64]





Any creature which is suggested as having undergone such a transition would be disadvantaged both in the sea and on land during that process and would be eliminated. The NAS's claims regarding the origin of marine mammals and molecular comparisons are totally based on speculation, and are far from being scientific and rational.

Conclusion

Molecular biology offers no evidence to support the theory of evolution's claim that all the different living categories on earth descended from a single common ancestor by means of random mutations and natural selection. The gradual divergence expected by the theory appears nowhere in the fossil record or molecular analyses.

Michael Denton makes the following comment based on the findings in the field of molecular biology:

> Each class at a molecular level is unique, isolated and unlinked by intermediates. Thus molecules, like fossils, have failed to provide the elusive intermediates so long sought by evolutionary biology… **At molecular level, no organism is "ancestral" or "primitive" or "advanced" compared with its relatives…** There is little doubt that if this molecular evidence had been available one century ago… the idea of organic evolution might never have been accepted. [65]

THE NAS'S CONFESSIONS

Even though the NAS blindly defends the theory of evolution in its booklet *Science and Creationism* and suggests that there is definitive evidence for the theory in all fields, it has also admitted in its publication *Proceedings of the National Academy of Sciences* (PNAS) that the theory contains a number of contradictions. An essay entitled "The New Animal Phylogeny: Reliability and Implications," published in the April 25, 2000 issue of *PNAS*, is just one of many articles full of such confessions.

Another essay, prepared by scientists from France's Centre National de la Recherche Scientifique (CNRS), details how unreliable and contradictory evolutionary family trees are, and expresses the need for new theories to be produced. The following statements appear in the article:

> DNA sequence analysis dictates new interpretation of phylogenic trees. Taxa that were once thought to represent successive grades of complexity at the base of the metazoan tree are being displaced to much higher positions inside the tree. This leaves no evolutionary "intermediates" and forces us to rethink the genesis of bilaterian complexity.
>
> Worst of all, contradictory trees have kept pouring in, often with insufficient critical assessment.
>
> Such a rapid splitting of lineages appears to have occurred repeatedly during evolution, and it renders reconstruction of the order of splits very difficult even with large amounts of sequence data.
>
> The new molecular based phylogeny has several important implications. Foremost among them is the disappearance of "intermediate" taxa between sponges, cnidarians, ctenophores, and the last common ancestor of bilaterians or "Urbilateria."
>
> ...A corollary is that we have a major gap in the stem leading to the Urbilataria. We have lost the hope, so common in older evolutionary

reasoning, of reconstructing the morphology of the "coelomate ancestor" through a scenario involving successive grades of increasing complexity based on the anatomy of extant "primitive" lineages.[1]

1- "The New Animal Phylogeny: Reliability and Implications," *Proceedings of National Academy of Sciences*, April 25, 2000, vol. 97, no: 9, pp. 4453-4456.

THE NAS'S HUMAN EVOLUTION ERROR

There is no doubt that one of the most debatable aspects of the theory of evolution concerns the evolution of man. According to the NAS, ". . . today there is no significant scientific doubt about the close evolutionary relationships among all primates, including humans." (*Science and Creationism*, p. 23) In fact, however, fossil discoveries and other findings in recent years have shown that there is no scientific basis to the claim that human beings and apes are descended from a common ancestor. Even evolutionist scientists admit that the question of human evolution has become an intractable problem. The NAS's claims regarding so-called human evolution are supported by no scientific evidence whatsoever. Let us now set out these claims and the responses to them.

The Imaginary Ancestors of Man

The NAS's self-confident style, evident throughout the book, although lacking any evidential basis whatsoever, is also apparent in the chapter dealing with so-called human evolution. However, even evolutionists admit that this claim fails to reflect the truth. As Professor Peter Andrews of the British Museum of Natural History admits in an article published in *Nature*, the lack of a hominid fossil record before about 5 million years ago is an important dilemma and

source of disappointment for evolutionists.[1]

Richard C. Lewontin from Harvard University has sincerely admitted the problematic nature of evolutionary scenarios on human origins:

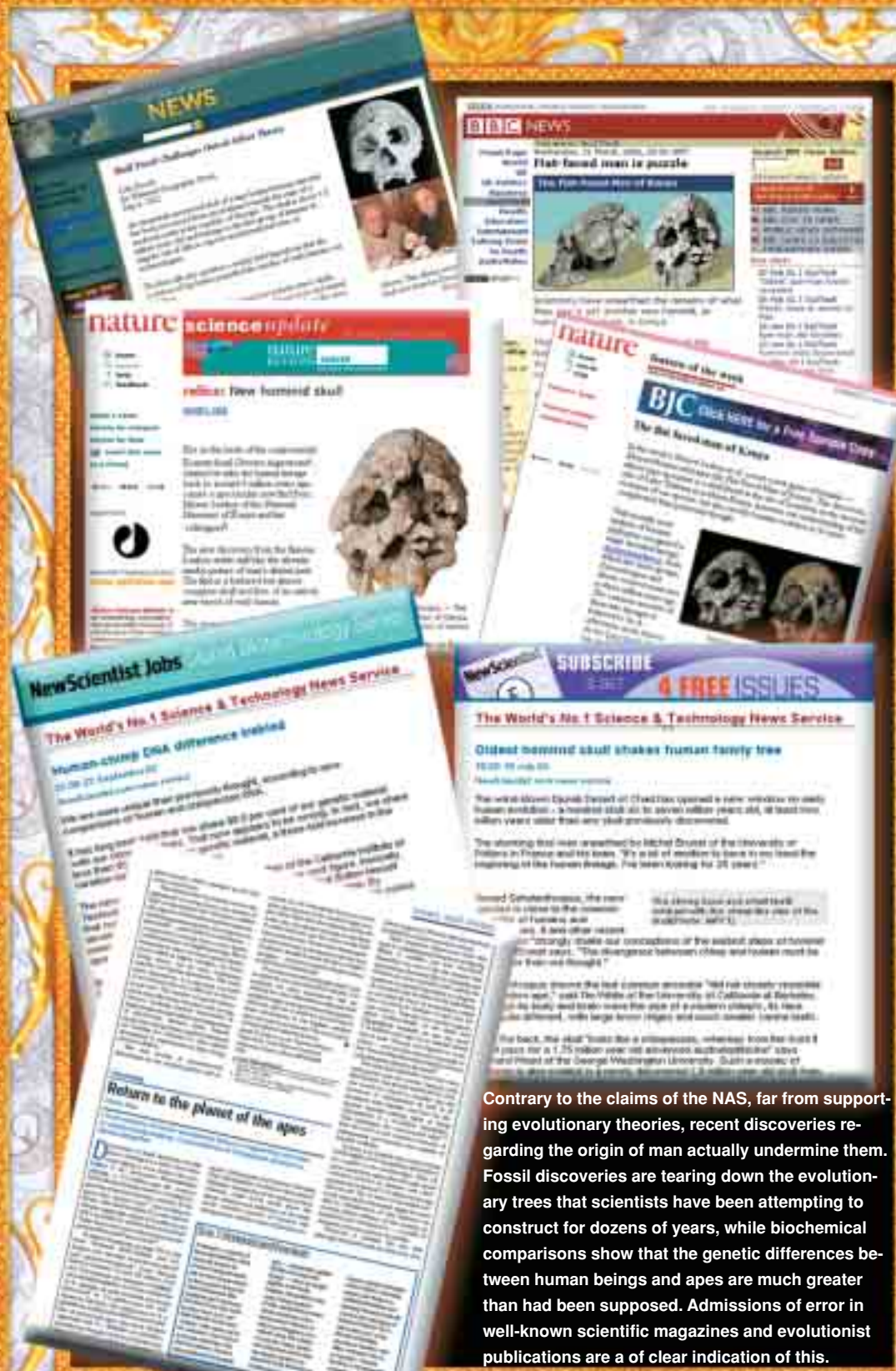
> When we consider the remote past, before the origin of the actual species *Homo sapiens*, we are faced with a fragmentary and disconnected fossil record. Despite the excited and optimistic claims that have been made by some paleontologist, no fossil hominid species can be established as our direct ancestor.[2]

Henry Gee, senior editor of *Nature*, in an article published in July 12, 2001 admits that despite all the paleontological excavations, no evolutionary links between humans and chimpanzees, which are our supposed closest living relatives, have been established:

> Moreover, it remains the case that although hominid fossils are famously rare, the chimpanzee lineage has no fossil record whatsoever.[3]

Henry Gee is not alone in making confessions of this kind. Professor Bernard Wood of George Washington University, for instance, says in an article in *Nature* that the taxonomic and phylogenetic relationships surrounding man's evolutionary origin are still shrouded in darkness, stating:

> It is remarkable that the taxonomy and phylogenetic relationships of the earliest known representatives of our own genus, *Homo*, remain obscure. Advances in techniques for absolute dating and reassessments of the fossils themselves have rendered untenable a simple unilinear model of human evolution, in which *Homo habilis* succeeded the australopithecines and then evolved via *H. erectus* into *H. sapiens*—but no clear alternative consensus has yet emerged.[4]



Contrary to the claims of the NAS, far from supporting evolutionary theories, recent discoveries regarding the origin of man actually undermine them. Fossil discoveries are tearing down the evolutionary trees that scientists have been attempting to construct for dozens of years, while biochemical comparisons show that the genetic differences between human beings and apes are much greater than had been supposed. Admissions of error in well-known scientific magazines and evolutionist publications are a of clear indication of this.

In short, it has emerged that the classic evolutionary scheme from *Australopithecus* to modern man is incompatible with scientific findings, but no other model of evolution can be proposed. Thus, the theory of evolution is in "crisis," as Michael Denton puts it, with regard to the origin of man, as well. In its March 14, 1994, issue, *Time* magazine openly stated how the fossil record has left the theory of evolution in a severe quandary:

> Yet despite more than a century of digging, the fossil record remains maddeningly sparse. With so few clues, even a single bone that doesn't fit into the picture can upset everything. Virtually every major discovery has put deep cracks in the conventional wisdom and forced scientists to concoct new theories, amid furious debate.[5]

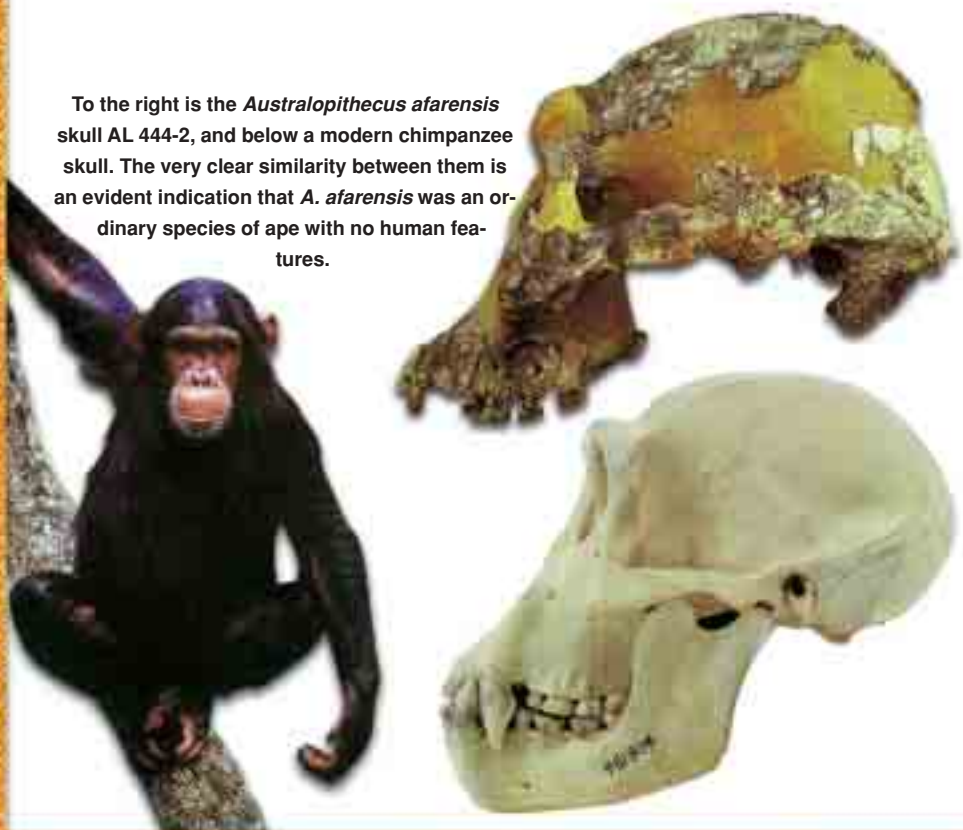
As we have seen, even evolutionist scientists and publications admit that the fossil record fails to provide any evidence for the idea of human evolution. Nonetheless, the NAS booklet totally ignores these facts as it sets out its groundless claims.

For around 150 years, evolutionist paleontologists have been looking for fossils to prove the theory of evolution. Yet, these searches have produced no results.

The NAS's Errors Regarding *Australopithecus*

In its chapter on human evolution, the NAS devotes the greatest space to *Australopithecus*, suggesting that these creatures were transitional forms with half-human, half-ape features.

The fact is, however, that these creatures—to whom the suffix "*–pithecus*," the Latinized Greek equivalent of "tailless ape," is applied—are actually an extinct species of ape and represent no evidence at all of human evolution. In fact, *Australopithecus* closely resembles the chimpanzee. Lucy, for instance, the best-known example of *Australopithecus* (*Australopithecus afarensis*), had a chimp-sized brain, chimp-shaped rib cage and jawbone, and arms and legs that indicate it walked like a chimp. It even had a chimp shaped pelvis.[6]



To the right is the *Australopithecus afarensis* skull AL 444-2, and below a modern chimpanzee skull. The very clear similarity between them is an evident indication that *A. afarensis* was an ordinary species of ape with no human features.

The evolutionist claim on this subject, however, is that despite having a totally simian anatomy, *Australopithecus* walked upright, like human beings and unlike apes.

This "**walking upright**" claim is a view that has been maintained by evolutionist paleoanthropologists like Richard Leakey and Donald Johanson for many years. However, many scientists who have examined the *Australopithecus* skeletal structure have refuted this claim. Two world-famous British and American anatomists, Lord Solly Zuckerman and Professor Charles Oxnard, carried out wide-ranging examinations of *Australopithecus* specimens and showed that these creatures were not bipedal but moved in the same manner as modern apes. Despite being an evolutionist himself, Lord Zuckerman, who spent 15 years studying various *Australopithecus* specimens with a team of five experts backed by the British government, arrived at the conclusion that *Australopithecus* was **an ordinary species of ape and very definitely did not walk upright.**[7]

Richard Leakey

Charles E. Oxnard, another evolutionist well-known for his research in this area, also likened the skeletal structure of *Australopithecus* to that of present-day orangutans.[8]

The point regarding bipedalism

which evolutionists particularly stress is the angle at which the femur comes down and meets the knee, known as the "carrying angle." Human beings are able to carry their weight on their feet as they walk because their upper leg bones and lower leg bones meet at an approximate 9 degree angle at the knee joint. In the chimpanzees and gorillas, however, the thigh and shin bones form a straight line, with a carrying angle of essentially 0 degrees. These animals only manage to carry their weight on their feet when they walk by swinging their bodies from one direction to another in the "ape-walk." Evolutionists assume that ape fossils with a high carrying angle somewhat similar to the human condition walked on two legs and thus evolved into human beings. The reason that australopithecines are regarded as ancestors of man is that they generally have a carrying angle of about 15 degrees. However, many evolutionists now accept that this angle indicates that these creatures were expert tree climbers. In fact, the largest carrying angle among living primates is found in the orangutan and the spider monkey, both of which are excellent tree-

The postures of human beings and apes are very different. Humans have an erect body posture and walk upright, while apes lean their bodies forward and use their arms for support.

The latest research has shown that Lucy possessed the skeletal features of knuckle-walking apes.

climbers. In other words, the anatomical feature that evolutionists portray as evidence of bipedalism is possessed by arboreal monkeys, which no-one suggests were the ancestors of man.

In addition, Lucy's wrist joints show that this creature was a quadrupedal knuckle-walker, which is a distinguishing feature of modern apes. Brian G. Richmond and David S. Strait of George Washington University described four skeletal features of distal radius of knuckle-walking apes, chimpanzees, and gorillas. The two researchers investigated Lucy and other fossils claimed to be hominid, and stated that Lucy possessed the same skeletal structure as knuckle-walking apes.[9]

As we have seen, detailed studies of *Australopithecus* show that these creatures did not stand upright and walk on two legs, but on the contrary possessed a knee structure and gait seen in present-day chimpanzees and gorillas.

It needs to be made clear that even if *Australopithecus* were bipedal, this would still be insufficient to prove it was an ancestor of man. Bernard Wood says that bipedalism should not be regarded as a feature distinguishing man from apes, and cites the following example, "birds have wings, but not all creatures with wings are birds."[10]

The fact that *Australopithecus* cannot be considered an ancestor of man is also accepted by evolutionist sources. The well-known French magazine *Science et Vie* made this its cover story of its May 1999 issue. The story dealt with Lucy, the best-known fossil specimen of *Australopithecus afarensis*, under the title "**Adieu Lucy**," and wrote of the need to remove *Australopithecus* from the human family tree. The article, based on the discovery of a new *Australopithecus*, code number St W573, stated:

> A new theory states that **the genus *Australopithecus* is not the root of the human race**… The results arrived at by the only woman authorized to examine St W573 are different from the normal theories regarding mankind's ancestors: this destroys the hominid family tree. Large primates, considered the ancestors of man, have been removed from the equation of this family tree… *Australopithecus* and *Homo* (human) species do not appear on the same branch. Man's direct ancestors are still waiting to be discovered.[11]

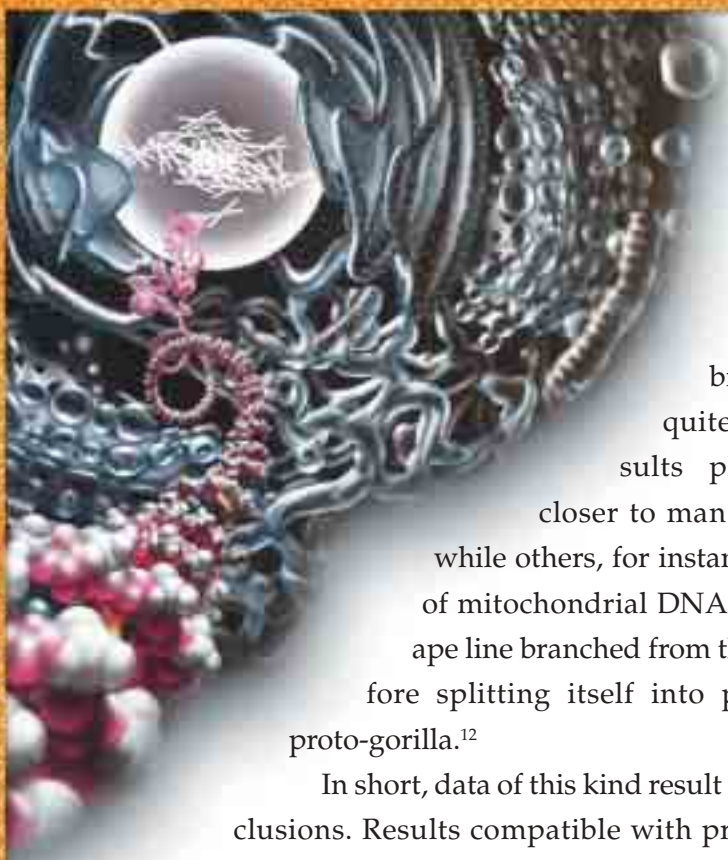
Scientific findings have proven the evolutionist assumptions regarding Lucy, the best-known example of the genus *Australopithecus*, to be unfounded. In its February 1999 issue, the well-known French scientific magazine *Science et Vie* accepted this in an article entitled "Adieu Lucy," and confirmed that *Australopithecus* cannot be considered an ancestor of man.

The Myth of Molecular Evidence For Human Evolution

The NAS authors claim that data from molecular biology provides proof of the so-called evolution of man. This is yet another of the NAS's unrealistic claims. We have already seen that molecular biology does not provide evidence of evolution, and this chapter will touch in brief on the way that the data from molecular biology conflict with the claims of human evolution.

The NAS's claim with regard to molecular biology is based on the hypothesis that human beings are genetically closer to chimpanzees and gorillas than to orangutans and other primates. The fact is, however, that this is a totally incorrect analysis. First of all, it needs to be made clear that the human genome was deciphered in 1998, the year the NAS booklet was published. The results of the Human Genome Project were published in 2001. The genetic codes of the chimpanzee and gorilla have not yet been deciphered. Therefore, it is not yet possible to make a reliable comparison between these species. Claims of this kind that appear in certain publications are based on comparisons of a limited number of proteins or genes. For this reason, when a comparison is carried out on another protein or molecule, it may give rise to very different or even conflicting results.

The Swedish paleontologist Bjorn Kurten, for example, writes about such conflicting results:



The exact relationship between the chimp, gorilla and human branches is not quite clear; some results place the chimp closer to man than the gorilla, while others, for instance a recent study of mitochondrial DNA, suggest that the ape line branched from the human line before splitting itself into proto-chimp and proto-gorilla.[12]

In short, data of this kind result in conflicting conclusions. Results compatible with preconceptions are aired in evolutionist publications, and other results are not mentioned. It is a fact that even evolutionists admit that data from molecular biology do not square with the claims of human evolution. Dr. Takahata from the National Institute of Genetics, for instance, says in a paper called "A Genetic Perspective on the Origin and History of Humans":

> Even with DNA sequence data, we have no direct access to the processes of evolution, so objective reconstruction of the vanished past can be achieved only by creative imagination.[13]

The fact that molecular analyses conflict with findings in other areas and represent an insoluble dilemma for so-called human evolution is well known to the NAS. This is clear from the fact that a paper called "How reliable are human phylogenetic hypotheses?," published in the *PNAS*—the NAS's own publication—on April 25, 2000, states

that interpretations based on molecular studies give results that are totally at odds with studies of anatomical similarities.[14] An article by Henry Gee, which took this paper as a reference point and was published in *Nature*, says:

> Given that bones and teeth are, for practical purposes, all there is to go on, uncertainty is likely to reign for some time, leaving the nature of the latest common ancestor—and the general course of early hominid evolution—as mysterious as ever. [15]

In that same article, it is admitted that "the evolutionary relationships remain murky."

The Claim That Human and Ape Genomes Are 98 Percent Similar Is Misleading

Another claim put forward by evolutionists on the genetic similarity between man and ape is that there is a 98% similarity between

the genetic make-ups of man and chimpanzee. However:

1) As was made clear in the preceding pages, work on the chimpanzee genome is not yet complete. Therefore, it is not possible to make a reliable comparison of the human and chimpanzee genomes.

2) Moreover, as mentioned above, the results from molecular comparisons generally conflict with evolutionists' expectations; for this reason the existence of a molecular similarity between two species cannot be regarded as sufficient reason to accept an evolutionary relationship between them.

3) Another point requiring clarification, apart from all the above considerations, is the fact recent analyses have shown that the genetic difference between man and the chimpanzee is three times greater than previously believed. Research on this subject states that, contrary to the allegations in some evolutionist publications, the genetic similarity between man and chimpanzee is not 98% at all, but rather is really no more than 95%. An article titled **"Humans, chimps more different than thought,"** which appeared on the **CNN** website on September 25, 2002, reported the results of this research in these terms:

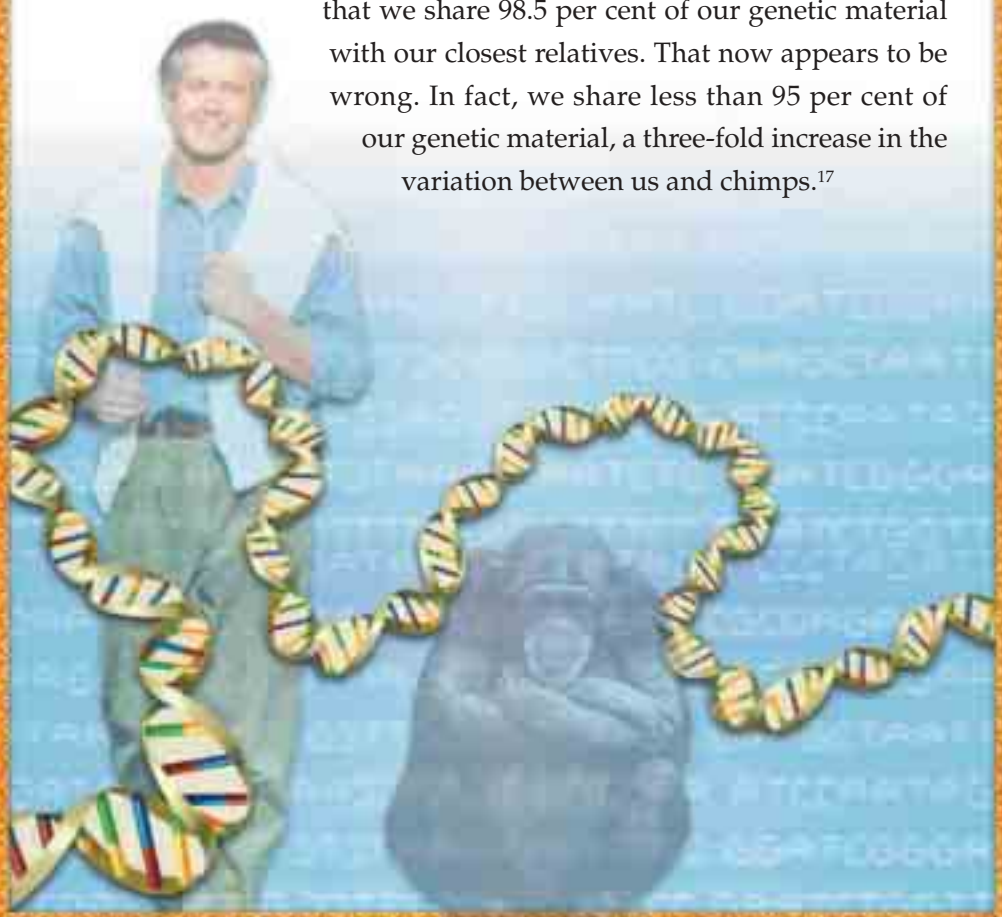
> There are more differences between a chimpanzee and a human being than once believed, according to a new genetic study.
>
> Biologists have long held that the genes of chimps and humans are about 98.5 percent identical. But a biologist at the California Institute of Technology, said in a study published this week that a new way of comparing the genes shows that the human and chimp genetic similarity is only about 95 percent.
>
> The biologist based this on a computer program that compared 780,000 of the 3 billion base pairs in the human DNA helix with

those of the chimp. He found more mismatches than earlier researchers had, and concluded that at least 3.9 percent of the DNA bases were different.

This led him to conclude that there is a fundamental genetic difference between the species of about 5 percent… [16]

The British scientific journal *New Scientist*, known for its devotion to Darwinism, carried a report entitled **"Human-Chimp DNA Difference Trebled,"** dated September 23, 2002, on its Internet site. This article stated:

We are more unique than previously thought, according to new comparisons of human and chimpanzee DNA. It has long been held that we share 98.5 per cent of our genetic material with our closest relatives. That now appears to be wrong. In fact, we share less than 95 per cent of our genetic material, a three-fold increase in the variation between us and chimps.[17]



Common Design

What is the significance of the fact that human DNA bears a 95% resemblance to that of chimpanzees? To answer this question, we need to look at some comparisons between human beings and other living things.

One of these comparisons provided the interesting result that there was a 75% similarity between man and worms of the nematode phylum.[18] On the other hand, analyses based on certain proteins have portrayed man as close to very different creatures. In one study carried out by researchers at Cambridge University, certain proteins in some vertebrates were compared. Astonishingly, man and the chicken were paired off as closest relatives in nearly all cases. The next closest relative is the crocodile.[19]

The picture revealed by these studies is this: there are genetic similarities between man and other living things. Yet, these similarities do not reveal any kind of "evolutionary scheme."

The existence of these genetic similarities is very normal, even inevitable. That is because the human body is made of the same materials, the same elements, as those of other living things. Man breathes the same air, eats the same food, and lives in the same climate as animals. All life on Earth is "carbon-based"; in other words, it is constructed from organic molecules (carbon compounds). Therefore, a human being naturally has proteins and genetic codes that are similar to those of other living things. This, however, does not mean that man and other organisms share a common origin or that man evolved from other creatures.

In fact, genetic comparisons among living things have struck at the very heart of the 150-year-old evolutionary tree. What, in that case, could be the scientific explanation of the similar structures in liv-

Richard Owen

ing things? The answer to that question was given before Darwin's theory of evolution came to dominate the world of science. Scientists like Carl Linnaeus, who first systematized living things according to their similar structures, and Richard Owen regarded these structures as examples of "**common design**." According to this idea, similar organs (or, nowadays, similar genes) are held to be so because they were intelligently designed to serve a particular purpose, not because they evolved by chance from a common ancestor.

Modern scientific findings show that the claim of a "common ancestor" made with regard to similar organs is incorrect, and that the only possible explanation is common design. In other words, living things were created according to a common plan.

The NAS's "Out Of Africa" Error

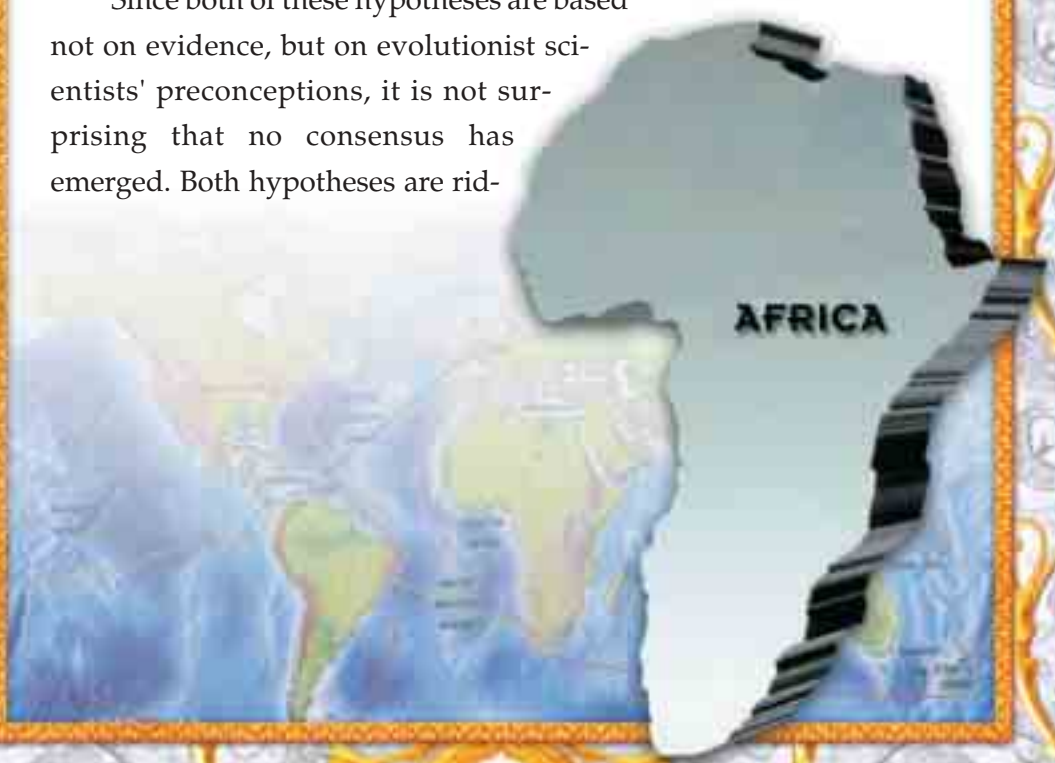
The NAS goes on to suggest that a claim, which is a matter of dispute even among evolutionists, is established fact—namely, that the first human beings emerged in Africa and spread from there to the rest of the world. Yet, there is absolutely no evidence to support this claim. In an article published in *Nature* in 2002, Tim White dealt with

the impossibility of such an assumption, stating:

> Uncertainties surrounding the taxon's appearance in Eurasia and southeast Asia make it impossible to establish accurately the time or place of origin for *H. erectus*. Available evidence is insufficient to detect the direction of its geographic dispersal. [20]

Discussions of the migration routes of man's ancestors—which is one of those topics that are the subject of much speculation despite a lack of evidence—led to the emergence of two main views in the 1980s. One of these, which the NAS maintains, is the hypothesis that the first human beings emerged in Africa from a single source and spread from there to the rest of the world. According to the other view, the first human beings emerged simultaneously in various regions of the world. Some of these people then encountered each other on their migratory routes, which led to the emergence of a new species by intermixing.

Since both of these hypotheses are based not on evidence, but on evolutionist scientists' preconceptions, it is not surprising that no consensus has emerged. Both hypotheses are rid-

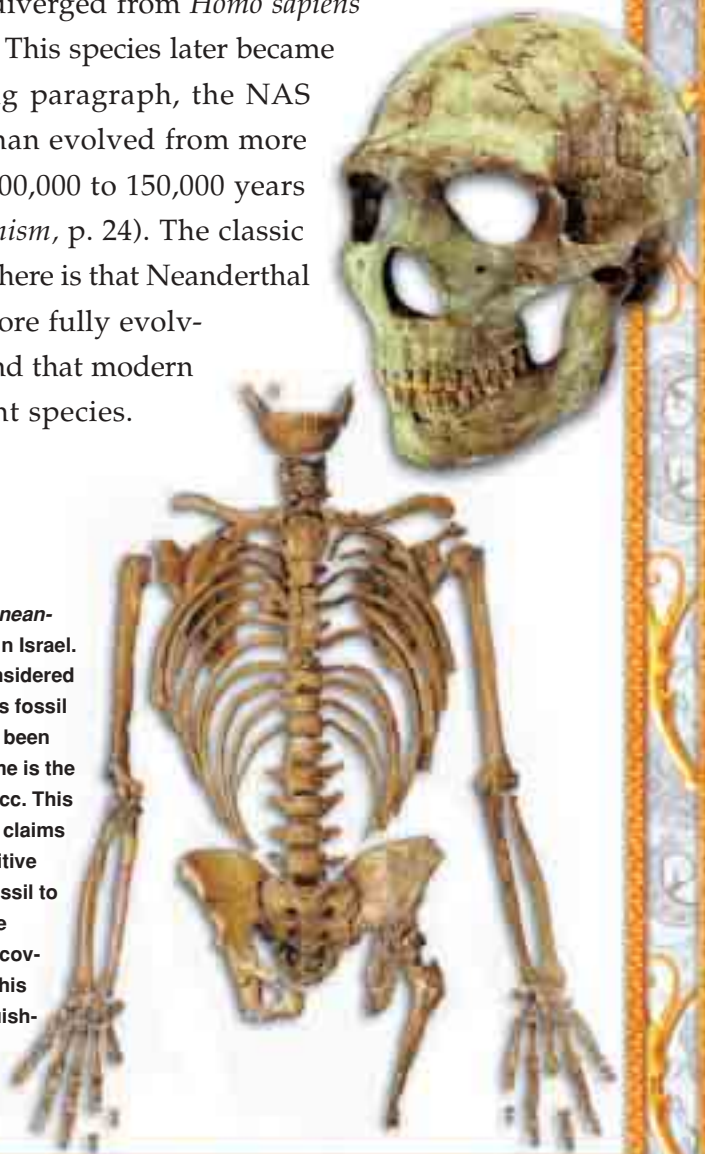


dled with contradictions and problems. *Scientific American* devoted some space to this problem in its August 1999 issue, noting that ". . . the significance of each finding has been questioned," referring to the methods on which these hypotheses are based.[21]

In conclusion, all we have are hypotheses, assumptions, and scenarios based on a very very sparse and controversial fossil record. The theory of evolution is unable to answer such fundamental questions as how life emerged on Earth or how different groups of living things came into being. It is at a total loss in the face of the different species that appear suddenly in the fossil record, as it is when confronted with the complex designs in living things. The proponents of evolution, therefore, speak not of basic and concrete facts, but rather of invented and mutually contradictory evolutionary scenarios. In this way, they attempt to conceal the fact that there is absolutely no scientific evidence to support the theory of evolution, which has now come to the end of its road.

The Nas's Errors Regarding Neanderthal Man

In its chapter on human evolution, the NAS claims that DNA extracted from a well-preserved skeleton of Neanderthal Man was used to establish, by means of the molecular clock technique, that Neanderthal Man diverged from *Homo sapiens* half a million years ago. This species later became extinct. In the following paragraph, the NAS suggests that modern man evolved from more archaic humans some 100,000 to 150,000 years ago (*Science and Creationism*, p. 24). The classic evolutionist implication here is that Neanderthal Man became extinct before fully evolving into modern man, and that modern man is a totally different species.



Top right is the *Homo sapiens neanderthalensis* skull Amud I, found in Israel. Neanderthal man is generally considered to have been short. However, this fossil specimen is estimated to have been around 1.80 m tall. Its brain volume is the largest so far encountered: 1740 cc. This fossil, therefore, demolishes the claims that Neanderthals were a primitive species. The Kebara 2 (Moshe) fossil to the right is the best complete Neanderthal specimen so far discovered. The skeletal structure of this 1.70-m tall individual is indistinguishable from that of modern man.

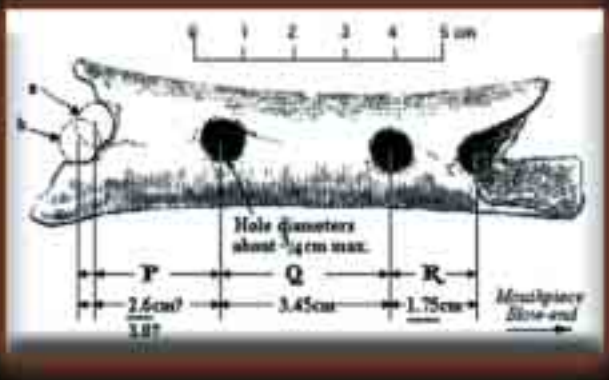
THE NEANDERTHAL NEEDLE

An interesting fossil showing that Neanderthal man possessed knowledge of clothing tens of thousands of years before our own time: a 26,000-year-old needle.

(D. Johanson, B. Edgar. *From Lucy to Language*, p. 99)

THE NEANDERTHAL FLUTE

A bone flute belonging to Neanderthal man. Calculations regarding this flute have shown that the holes were made in such a way as to produce correct notes; in other words, it is an expertly designed musical instrument.



Top right: Researcher Bob Fink's calculations regarding the flute. Discoveries like this show that, contrary to what evolutionist propaganda would have us believe, Neanderthal man was not a primitive "cave man," but rather possessed all the cultural attributes of modern human beings.

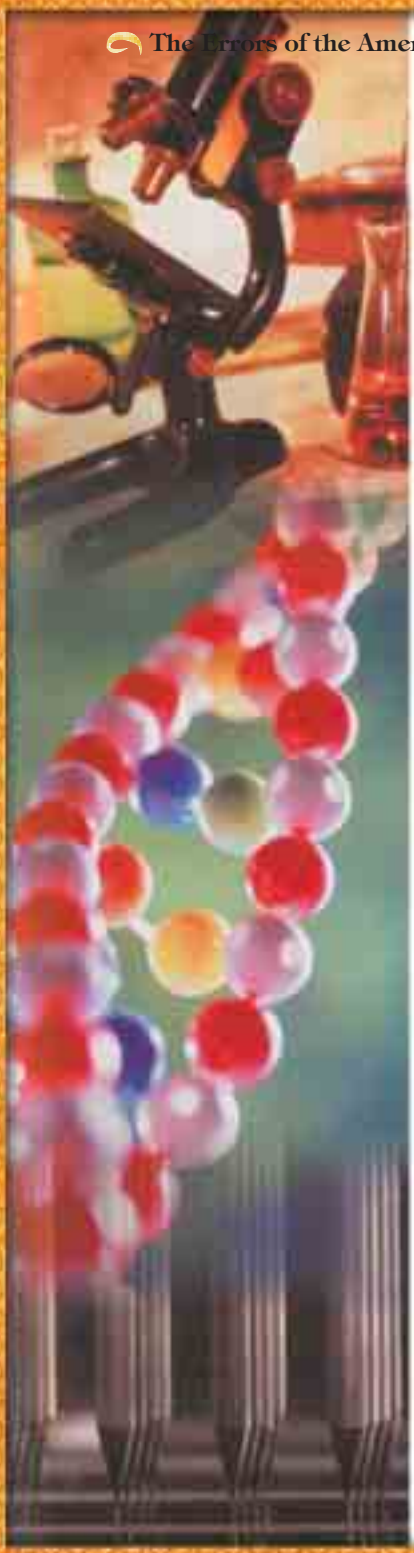
(The AAAS Science News Service, "Neanderthals Lived Harmoniously," April 3, 1997)

However, present-day findings show that Neanderthal Man lived together with *Homo sapiens*, and that the Neanderthals are an extinct human race, not a species different from man. You can find more details on this subject in our book *Darwinism Refuted*. The matter to be considered here is whether the data obtained from Neanderthal DNA are reliable.

The DNA analysis in question was carried out by Svante Pääbo of Munich University. Pääbo and his team studied mitochondrial (mtDNA) obtained from Neanderthal fossils instead of nuclear DNA. The reason for the use of mtDNA in studies of this kind is that while there are only two copies of DNA in each cell nucleus, there are between 500 and 1,000 copies of mtDNA in each cell. There is thus a greater possibility of ancient mtDNA's having been preserved. However, there are serious difficulties that reduce the reliability of this DNA analysis. Some of these difficulties are as follows:

1. The method employed in the comparisons is wrong

Here is one erroneous interpretation in the conclusions from this research: mtDNA obtained from Neanderthal Man was compared with mtDNA sequences from modern human beings, and the difference between the Neanderthal and modern human mtDNA sequences was determined to be greater than that between the mtDNAs of present-day humans. The method employed here is erroneous, however. A single sequence taken from the mtDNA of a single Neanderthal was compared to 994 sequences taken from 1,669 different modern humans. Bearing in mind that among these 1,669 people, some displayed differences among themselves as great as the difference between modern mtDNA and that of the Neanderthals, we can understand that the statistical results obtained are not trustworthy.[22]



For present-day human beings, an average was used, but no average could be obtained for Neanderthal Man, since the mtDNA sequence of only one individual was examined.

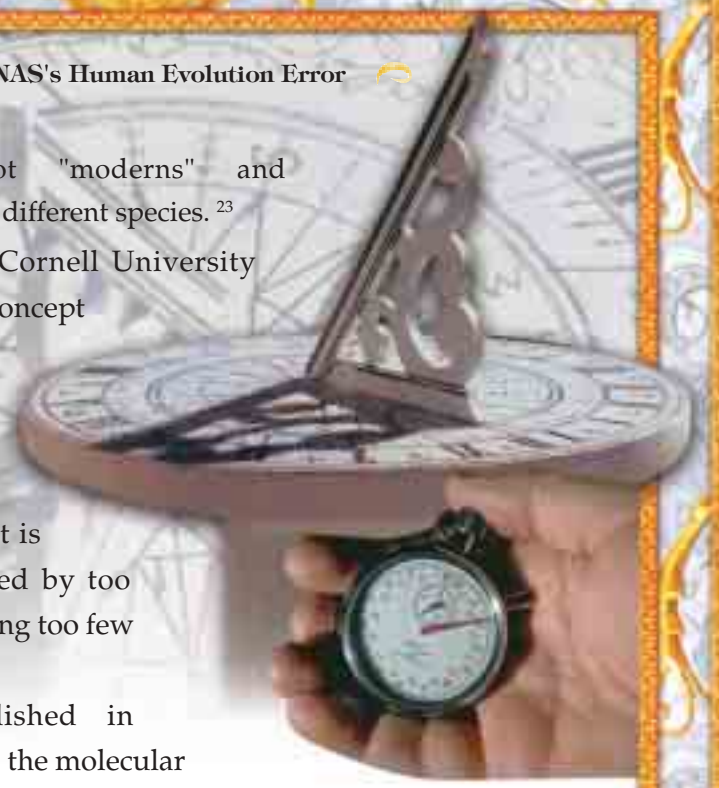
2. The molecular clock difficulty

As has been discussed in earlier chapters, the evolutionary inferences based on the concept of the molecular clock do not reflect reality. And yet, the unconditional acceptance by evolutionists of the "molecular clock" concept lies at the root of the assumption that modern man and the Neanderthals were separate species. G.A. Clark of the University of Arizona has this to say about the unreliability of the "molecular clock" method:

> Molecular clock models are full of problematic assumptions. Leaving aside differences of opinion about the rate of base pair substitutions, how to calibrate a molecular clock, and whether or not mtDNA mutations are neutral, the fact that the Neandertal sequence… differs from those of modern humans does not resolve the question of

whether or not "moderns" and "Neandertals" were different species. [23]

Karl J. Niklas of Cornell University refers to the use of the concept of the molecular clock to establish relationships between species as "…A research area that is at present characterized by too much speculation chasing too few data." [24]



An article published in *Science* in 1998 said that the molecular clock could be in error by as much as twenty-fold. Neil Howard of the University of Texas Medical Branch says,

> We've been treating this like a stop-watch, and I'm concerned that it's as precise as a sun dial. [25]

3. Problems regarding the use of mtDNA in the establishment of evolutionary relationships

Even evolutionists debate amongst themselves whether the use of mtDNA to determine evolutionary relationships is an accurate method. The Stanford University geneticist Luca Cavalli-Sforza and his associates write:

> [T]he mitochondrial genome represents only a small fraction of an individual's genetic material and may not be representative of the whole.[26]

After testing the assumptions underlying the use of mtDNA to

determine primate relationships, D. Melnick and G. Hoelzer of Columbia University provide the following information:

> Our results suggest serious problems with use of mtDNA to estimate "true" population genetic structure, to date cladogenic [branching evolution] events, and in some cases, to construct phylogenies.[27]

The most important of these problems is the way these evolutionist scientists are blindly devoted to the theory of evolution. For this reason, research on the subject of evolution is not carried out objectively, and there is an attempt to make the data fit the theory of evolution. Kenneth A.R. Kennedy of Cornell University makes this comment:

> This practice of forcing the paleontological and archaeological data to conform to the evolutionary and genetic models continues in reinterpretations of dates based upon the molecular clock of mitochondrial DNA as well as radiometric samples… [28]

Pääbo's study on Neanderthal mtDNA is a typical example of this. According to the Cambridge University anthropologist Robert Foley, Pääbo and his team's study "shows plainly the futility of trying to interpret genes without knowing so much more—about selection and drift, about processes of cultural transmission, about history and geography, about fossils, about anthropology, about statistics." [29]

Evolutionists' Confessions on So-Called Human Evolution

No matter how loudly the NAS claims, in order to convince its readership, that there is no serious scientific doubt about human evolution, this is far from the case. The so-called evolution of man is one of the greatest dilemmas facing the theory of evolution. An article in

Discovering Archeology magazine, one of the best-known publications concerned with the origin of man, written by its editor Robert Locke, says, "The search for human ancestors gives more heat than light," while the well-known paleoanthropologist Tim White makes this confession:

> We're all frustrated by all the questions we haven't been able to answer.[30]

In the article, the dilemma facing the theory of evolution with regard to the origin of man and the groundlessness of the propaganda campaign waged to support it are described in this way:

> Perhaps no area of science is more contentious than the search for human origins. Elite palaeontologists disagree over even the most basic outlines of the human family tree. New branches grow amid great fanfare, only to wither and die in the face of new fossil finds.[31]

This same truth was recently accepted by Henry Gee, editor of the prestigious journal *Nature*. In his book I*n Search of Deep Time*, published in 1999, Gee pointed out that all the evidence for human evolution "between about 10 and 5 million years ago—several thousand generations of living creatures—can be fitted into a small box." He concludes that conventional theories of the origin and development of human beings are "a completely human invention created after the fact, shaped to accord with human prejudices," and adds:

> To take a line of fossils and claim that they represent a lineage is not a scientific hypothesis that can be tested, but an assertion that car-

The fossil known as *Kenyanthropus platyops*, found in 2001, further invalidates the evolutionists' claims regarding the so-called evolution of man.

ries the same validity as a bedtime story—amusing, perhaps even instructive, but not scientific.[32]

Daniel E. Lieberman, of the George Washington University Anthropology Department, made the following comment in a statement issued regarding the fossil *Kenyanthropus platyops*, found in 2001:

> The evolutionary history of humans is complex and unresolved. It now looks set to be thrown into further confusion by the discovery of another species and genus, dated to 3.5 million years ago… The nature of *Kenyanthropus platyops* raises all kinds of questions, about human evolution in general and the behavior of this species in particular… I suspect the chief role of *K. platyops* in the next few years will be to act as a sort of party spoiler, highlighting the confusion that confronts research into evolutionary relationships among hominins.[33]

The evolutionist paleontologists C. A. Villee, E. P. Solomon, and P. W. Davis admit that man emerged suddenly on Earth—in other words with no evolutionary ancestor before him—by saying, **"We appear suddenly in the fossil record."**[34]

In an article written in 2000, Mark Collard and Bernard Wood, two evolutionist anthropologists, were forced to state that "existing phylogenetic hypotheses about human evolution are unlikely to be reliable."[35]

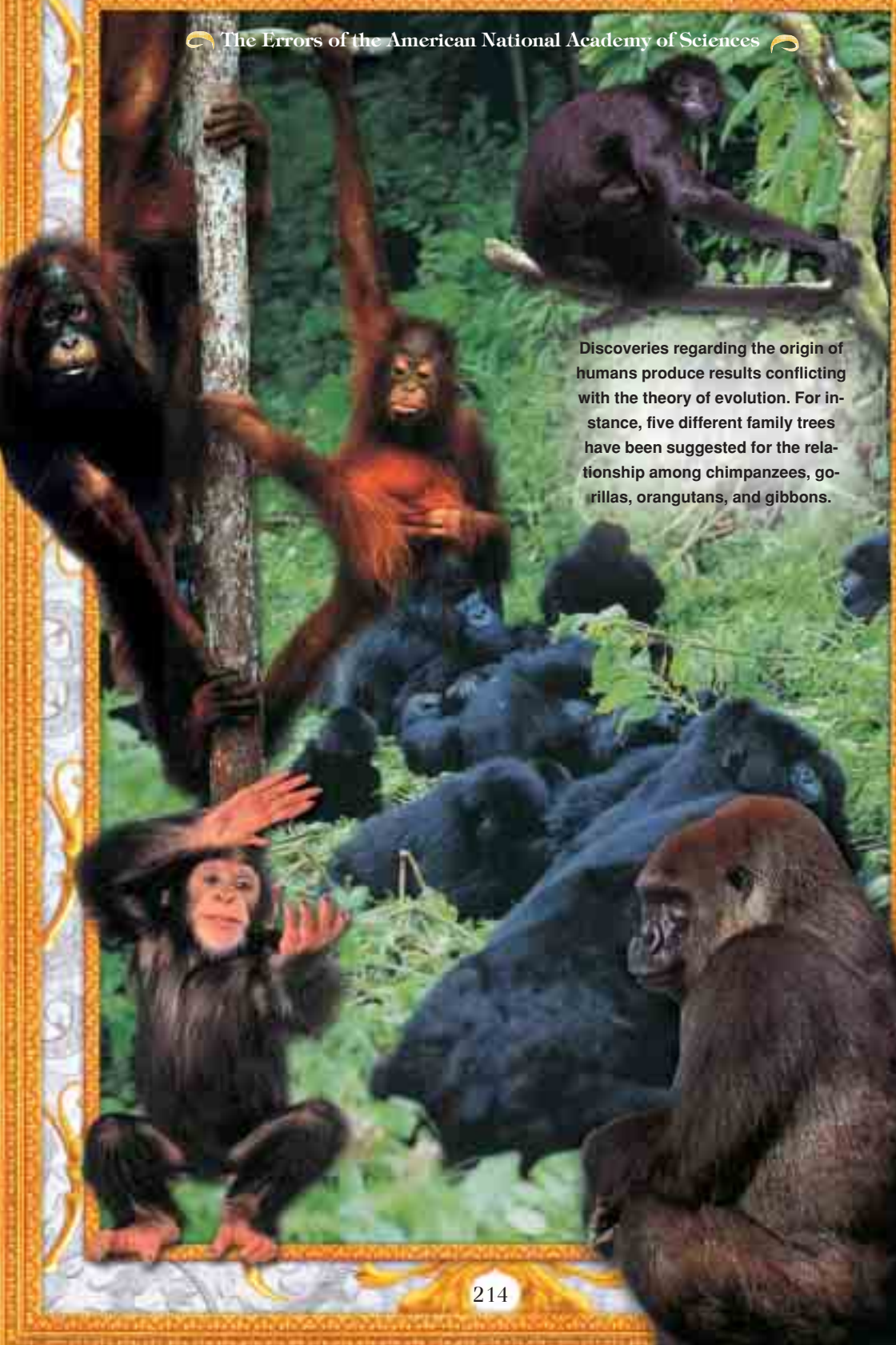
Following are the views of some other evolutionists on this subject:

J. Bower:

> It is true that the data are fraught with numerous problems, . . . Many fossils are fragmentary, and the bones are sometimes difficult to restore to their original condition. An added problem is that the dating of human fossils [is] often complex and ambiguous. Finally, there are serious gaps in the fossil record.[36]

A. Hill:

> Compared to other sciences, the mythic element is greatest in paleoanthropology. Hypotheses and stories of human evolution frequently arise unprompted by data and contain a large measure of general preconceptions, and the data which do exist are often insuf-



Discoveries regarding the origin of humans produce results conflicting with the theory of evolution. For instance, five different family trees have been suggested for the relationship among chimpanzees, gorillas, orangutans, and gibbons.

ficient to falsify or even substantiate them. Many interpretations are possible. [37]

Niles Eldredge and Ian Tattersall:

So the pattern emerges. We do not see constant progressive brain enlargement through time, or a climb to a more completely human posture. We see instead new "ideas," like upright posture, developed fully from the outset. We see the persistence, through millions of years, of species which continue on unchanged…[38]

D. Willis:

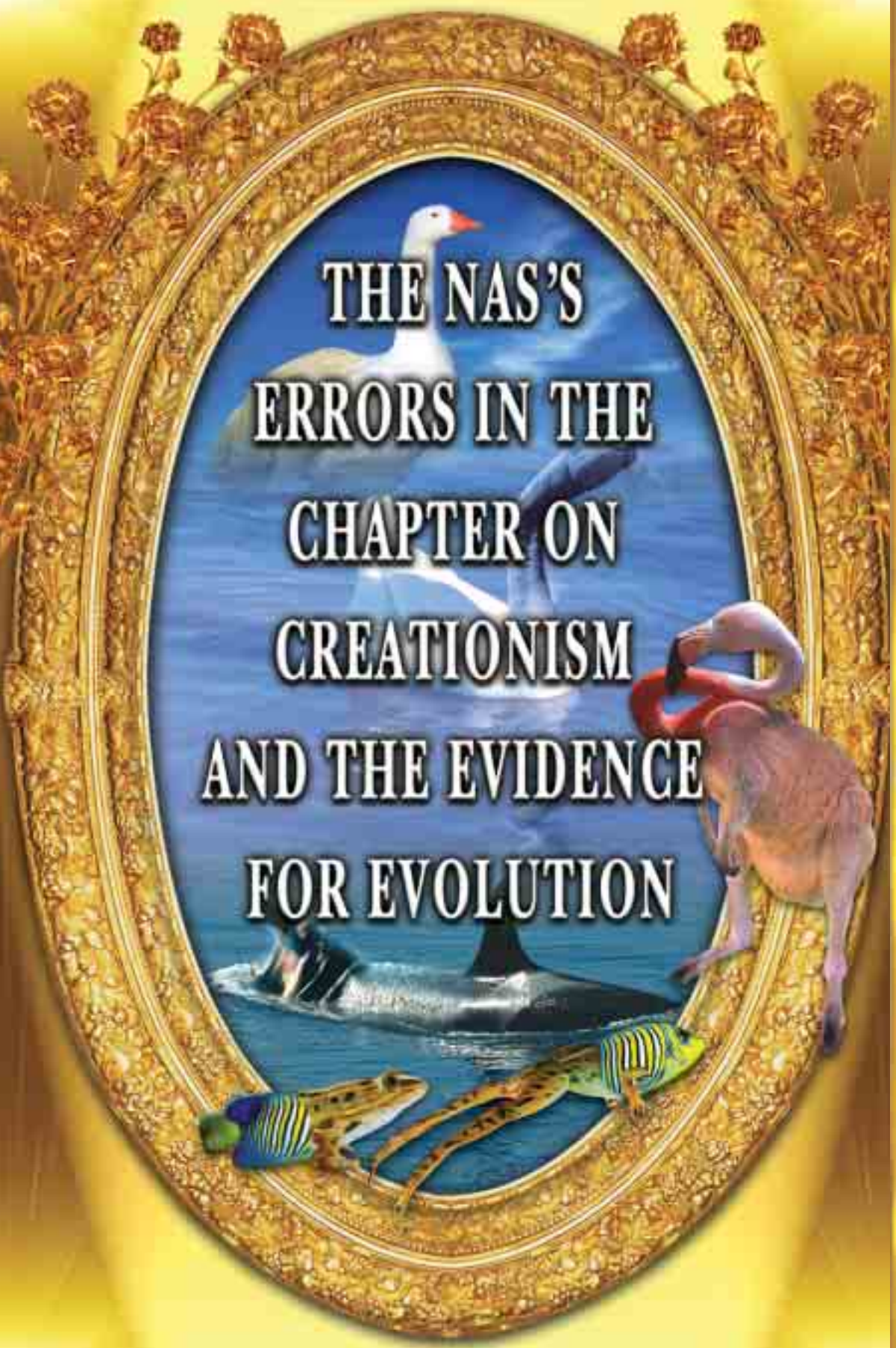
Within the past few years five different trees have been offered for the branching order among hominids, chimps, gorillas, orangutans, and gibbons.[39]

[T]he account of our own origins on earth remains largely unknown.[40]

G.L. Stebbins:

With respect to human origins, the discoveries made during the past fifteen years present a complex picture. The facts do not support the hypothesis of a simple progression *Ramapithecus—Australopithecus—Homo habilis— H. erectus—H. sapiens*.[41]

As we have seen, even evolutionists accept that so-called human evolution is not supported by the scientific findings. As has been shown throughout this book, the theory of evolution is not supported with facts but with totally ideological preconceptions. The theory of evolution—which is unable to explain how even a single cell came into being by random mechanisms, how man acquired the consciousness that makes him human (that is, the features of the human soul), or how lifeless and unconscious matter could turn into a thinking, speaking, rejoicing, and doubting human being, capable of feeling excitement and making discoveries—is one of the most irrational and unscientific claims ever made.


THE NAS'S
ERRORS IN THE
CHAPTER ON
CREATIONISM
AND THE EVIDENCE
FOR EVOLUTION

Why The Geological Column Is Not Evidence for Evolution

Since the NAS authors are blindly devoted to the theory of evolution, they are even capable of interpreting evidence that works against the theory as evidence in favor of it. One example of this is their interpretation of the fossil record: according to the NAS, fossils are found in an orderly sequence in the Earth, and similar species are set out in consecutive layers. Evolutionists then portray this as evidence of evolution. However, this claim is exceedingly deceptive and totally ignores the real message of the fossil record.

It first needs to be made clear that even if living things were set out in order in the Earth's geological strata, this would still not be proof of evolution. In order for such an arrangement to be considered evidence of evolution, fossils of those creatures that provided transitions between species alleged to have evolved from one another should also be found in the strata. As we have seen in earlier chapters, however, these transitional forms are nowhere to be found. Furthermore, beyond the fossil record, branches of sciences such as morphology, genetics, and biochemistry have all proven that such transitional forms are impossible. These branches of science have demonstrated that living species cannot descend from one

another by evolution. In conclusion, even if there were a fossil sequence in the Earth, as evolutionists claim, this would not constitute proof of evolution.

The most important aspect of this is, without a doubt, the fact that the evolutionary history referred to by the NAS does not exist. The Cambrian explosion, which is known to have taken place some 550 million years ago, is a clear indication that life on Earth did not come about through evolutionary development, but rather emerged suddenly with all its complex forms of life already in existence. The NAS authors fail to make a single reference drawing attention to the Cambrian explosion. Yet this booklet claims to be a response to the proponents of creationism. The Cambrian explosion heads the list of subjects of interest to the proponents of creation, and is one of the most important dilemmas facing the theory of evolution.

All the animal phyla known today emerged at the same time, in the geological age known as the Cambrian Period. This lasted some 65 million years and took place some 570 to 505 million years ago.

The "Cambrian explosion" refers to a shorter time within the Cambrian period, when the main animal groups suddenly emerged. In an article from 2001, based on a detailed examination of the literature, Stephen C. Meyer, P.A. Nelson, and Paul Chien wrote, "Cambrian explosion occurred within an exceedingly narrow window of geologic time, lasting no more than 5 million years."[1]

In the fossil record before that period, there is no trace of life other than single-celled creatures and a few very simple multi-celled ones. Yet, all the animal phyla emerged suddenly, fully formed, in a period as short as 5 million years (which is very short in geological terms)! An article published in *Science* in 2001 said: "The beginning of

the Cambrian period, some 545 million years ago, saw the sudden appearance in the fossil record of almost all the main types of animals (phyla) that still dominate the biota today."[2] The same article also stated that in order for such complex and very different forms of life to be accounted for in terms of the theory of evolution, fossil beds showing a rich and gradual development from earlier periods should be found, but that this is out of the question:

> Other paleontologists have questioned whether such rapid evolution is possible and have instead postulated a phylogenetic "fuse"—an extended period of evolutionary genesis that has left little or no fossil record. [3]

The fossils found in Cambrian beds belong to such very different creatures as snails, trilobites, sponges, worms, star fishes, sea urchins, and sea lilies. Most of the living things in these strata possess complex systems such as eyes, respiratory and circulatory systems, and other advanced physiological structures no different from those of modern specimens. These structures are both very complex and very different from each other. They all emerged suddenly, with no evolutionary ancestors.

The only modern phylum whose origins in the Cambrian Period have ever been in doubt is *Chordata,* which includes vertebrates. However, two fossil fish found in 1999 demolished the evolution hypothesis with respect to chordates, as well. These fish, known as *Haikouichthys ercaicunensis* and *Myllokunmingia fengjiaoa*, belong to the Cambrian Period and are 530 million years old. A report by the well-known paleontologist Richard Monastersky, called "Waking Up to the Dawn of Vertebrates," described the importance of the discovery:

Paleontologists have long regarded vertebrates as latecomers who straggled into evolutionary history after much of the initial sound and fury had fizzled. Chinese paleontologists, however, **have discovered fossils of two fish that push the origin of vertebrates back to the riotous biological bash when almost all other animal groups emerged in the geologic record.** Preserved in 530-million-year-old rocks from Yunnan province, the paper clip-size impressions record the earliest known fish, which predate the next-oldest vertebrates by at least 30 million years.[4]

This evidence that vertebrates also emerged during the Cambrian Period demolished all hopes of locating the history of life within an evolutionary framework.

Professor Phillip Johnson of University of California at Berkeley, one of the most important critics of evolution in the world, describes how this fact openly conflicts with Darwinism:

Darwinian theory predicts a "cone of increasing diversity," as the

> first living organism, or first animal species, gradually and continually diversifies to create the various levels of the taxonomic order. The animal fossil record more resembles such a cone turned upside down, with **the phyla present at the start and thereafter decreasing.**[5]

As Johnson makes clear, far from emerging gradually, all the phyla emerged suddenly, with some becoming extinct in later periods.

It is therefore possible to understand why the NAS authors failed to mention the Cambrian explosion, described by Roger Lewin as "the most important evolutionary event during the entire history of the Metazoa"[6]—neither the NAS authors nor any other evolutionist dares say anything about the Cambrian explosion. Therefore, they choose to ignore the phenomenon, as well as all the other evidence that undermines the theory of evolution.

The Missing Argument: "No One Has Seen Evolution Occur"

The NAS authors suggest that one of the creationists' main theses is that "no one has seen evolution occur." In fact, however, this is not a creationist thesis, and can only be a claim put forward by a few individuals. We do not claim that "the theory of evolution is not true because no one has seen evolution occur." As the NAS authors make clear, there is no need for evolution to be witnessed in order for the theory of evolution to be proven; if the theory of evolution is true, all that is needed is for its results or mechanisms to be observed. If evolution did take place, then we should find ample evidence of this fact. For example, transitional forms should be discovered in the fossil record that prove that living things descended from one another. Genetic analyses should show that the structures of living things claimed to have an evolutionary family relationship are similar to one another and different from other species. Family trees built on the basis of genetic and morphological similarities should be mutually consistent. The way in which complex structures came into being through chance mechanisms should be capable of explanation. And the increases in genetic information in living things caused by mutation should be observed in laboratory experiments.

As we have seen throughout this book, however, the fact is that neither natural history, nor branches of science such as biology, morphology, paleontology, microbiology, biochemistry, and genetics, provide any results suggesting that evolution ever took place. On the contrary, the results from all these branches of science offer evidence that living things are individually created. In conclusion, although it is impossible for us to observe creation, the information from all the research and experiments in these branches clearly indicate that living things are created.

EVOLUTIONISTS HAVE BEEN LOOKING FOR THESE TRANSITIONAL FORMS FOR A HUNDRED YEARS, BUT HAVE FAILED TO FIND A SINGLE ONE

Had evolution really taken place, transitional forms such as half-reptile/half-mammals and half-reptile/half-birds, similar to those in these pictures, should be found in the fossil record. Yet, no trace of such forms has been found.

"Evolution in Action": Just In the Minds of Its Supporters

The NAS authors cite several examples of evolution occurring every day: bacterial resistance to antibiotics, the resistance of mosquitoes to insecticides, and the resistance of malaria parasites to drugs (*Science and Creationism*, p. 21).

We have already discussed the fact that the gradual acquisition by bacteria of resistance to antibiotics has nothing to do with evolution, and we shall not repeat this material here. In the same way, the acquisition by mosquitoes of resistance to pesticides is also not evidence of evolution.

Why immunity to DDT is not evidence for evolution

Evolutionists often attempt to portray the way in which mosquitoes and other insects acquire resistance to pesticides such as DDT as evidence in favor of the theory of evolution; however, the truth is very different. It is a mutation that makes insects resistant to pesticides. This mutation, however, does not constitute evidence for the theory of evolution.

Before examining this, let us briefly summarize the effect of DDT on insects. A DDT molecule attaches itself to a specific matching site on the membrane of the insect's nerve cells. It thus prevents the nerve from functioning properly. When sufficient DDT molecules attach themselves to the nerve cells, the nervous system collapses and the insect dies. [7]

So, how does an insect acquire resistance to DDT? By losing its sensitivity to DDT. This loss is the result of a mutation that alters the area in the nerve cell to which the DDT molecule normally attaches itself.[8] Any mutation that prevents DDT from attaching to the nerve cell

will make the insect resistant to the poison. Just as in the case of bacteria, insects can also gain resistance if the functioning of a nerve cell protein is reduced in just the right way.

Evolutionists portray the acquisition by insects of resistance by means of mutation as evidence for the theory of evolution. Yet, they forget—or deliberately ignore—one very important point: the alteration of an amino acid within a protein usually affects the functioning of that protein. Although such a change in a protein may bring resistance to poisons such as DDT, it may also lead to the loss of other functions or features. Naturally, as long as the pesticide in question is around, the creature gains resistance and survives, albeit at the cost of being less well adapted in some other way. When the poison is removed, however, the non-resistant species is again at an advantage.

M.W. Rowland from the Rothamsted Experimental Station in England reported that mosquitoes made resistant to dieldrin became less active and slower to respond to stimuli than other insects.[9] The resistance of insects to the poison was acquired at the cost of a "sluggish" nervous system. The loss of information at the molecular level emerges as a loss in the insects' performance.

Therefore, it is erroneous to regard the mutations that bring

about resistance to pesticides as an example of evolution. Such resistance mechanisms stop the poison or antibiotic from working by causing damage to the structure of the insect or bacterium. This may bring about resistance, but it cannot increase the insect's or bacterium's genetic information. On the contrary, in all observed cases a loss of one sort or another has always been identified. There is, therefore, no evolution here. The resistance of bacteria to antibiotics and of insects to DDT does not constitute evidence of evolution.

A Problem Too Complex for NAS: Irreducible Complexity

The "irreducible complexity" of structures and systems in living things is one of the most serious dilemmas facing the theory of evolution. According to the theory, all the stages undergone as one living thing evolves into another need to be advantageous. To put it another way, in a process of evolution from A to Z, all the intermediate stages, B,C,D … W,X,Y, must be of some benefit. Since it is impossible for natural selection and mutation to consciously identify an objective in advance, the theory depends on the assumption that all the systems in living things can be "reduced" to myriad small steps, and that each individual transition from one step to another is beneficial to the organism.

That is why Darwin said, "If it could be demonstrated that any complex organ existed, which could not possibly have been formed by numerous, successive, slight modifications, my theory would absolutely break down."[10]

Darwin may have imagined, in the primitive state of science in the nineteenth century, that living things did possess a reducible structure. Scientific discoveries during the course of the twentieth century, however, have revealed that many organs and systems in living things cannot be reduced to simple forms. **This fact, known as "irreducible complexity," destroys Darwinism, just as Darwin himself feared.**

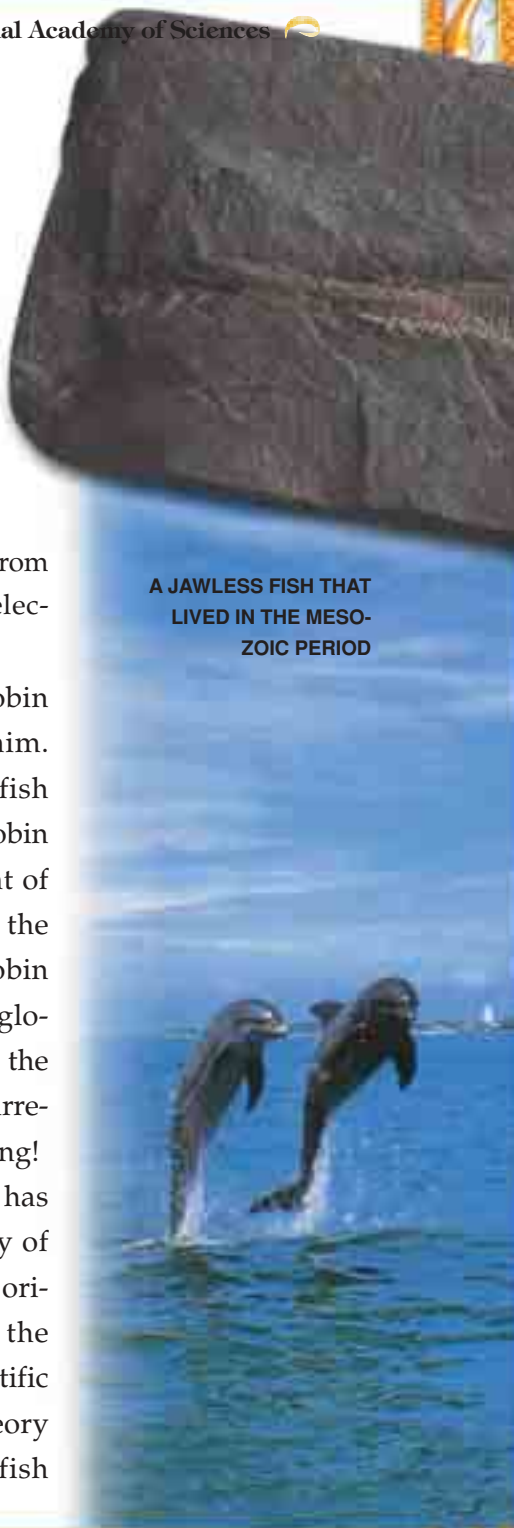
Although the concept of irreducible complexity is sufficient to demolish the theory of evolution all on its own, the NAS authors do devote some space to it. However, they do so only to suggest, in a manner devoid of any proof or logic, that irreducibly complex struc-

tures are really nothing of the sort:

> However, structures and processes that are claimed to be "irreducibly" complex typically are not on closer inspection. For example, it is incorrect to assume that a complex structure or biochemical process can function only if all its components are present and functioning as we see them today. Complex biochemical systems can be built up from simpler systems through natural selection. (*Science and Creationism*, p. 22)

The NAS authors cite the hemoglobin molecule as an example of their claim. According to the NAS claim, jawed fish evolved from jawless ones. The hemoglobin of the former is more complex than that of the latter. In other words, according to the NAS, the irreducibly complex hemoglobin of a jawed fish evolved from the hemoglobin in a simpler animal. With this claim, the NAS **imagines** it has explained how an irreducibly complex molecule came into being!

This is pure fantasy, since nothing has been said that might benefit the theory of evolution. In attempting to explain the origin of irreducibly complex structures, the NAS authors rely not on a concrete scientific truth but on the assumptions of the theory of evolution. The evolution of jawed fish



A JAWLESS FISH THAT LIVED IN THE MESOZOIC PERIOD

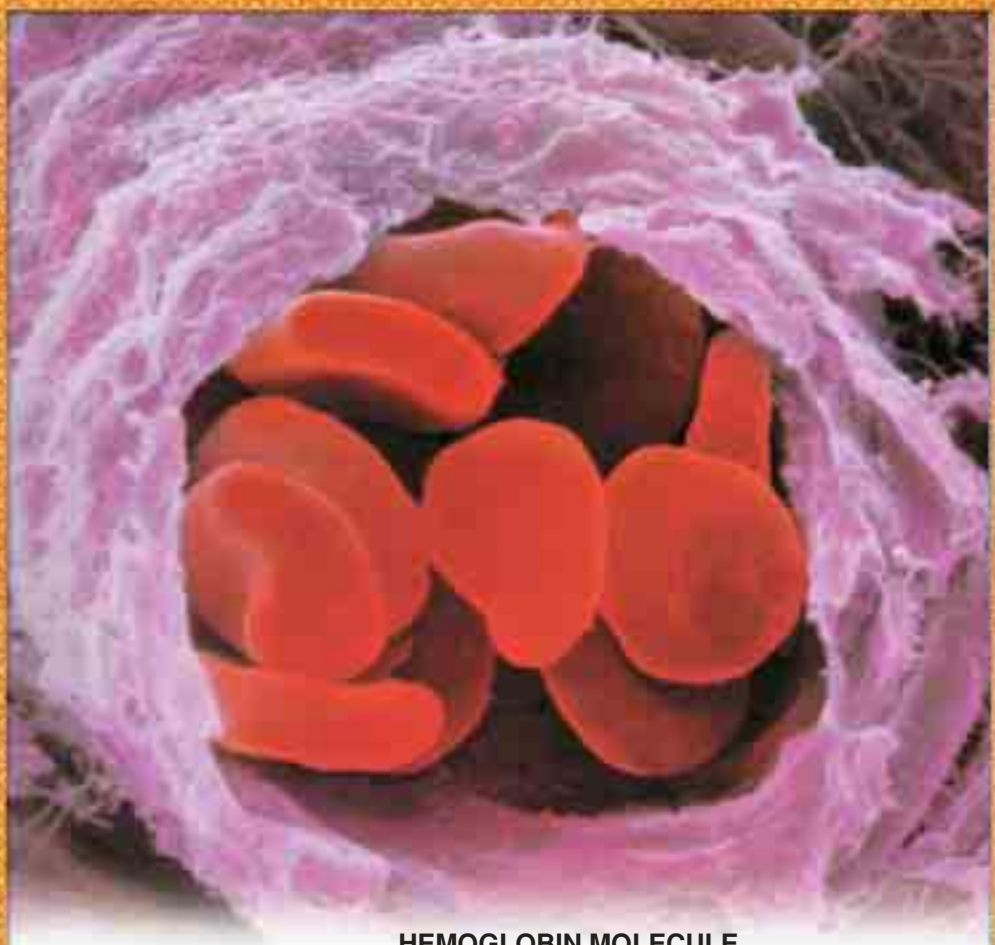
According to NAS, the reason why the hemoglobin of jawed fish is more complex than that of jawless fish is that the former evolved from the latter. The fact is, however, that there is no scientific evidence to support this claim.

from jawless fish is a Darwinist assumption, not a scientific fact. Offering one assumption, itself lacking any proof, as evidence for another is at best a logical fallacy and at worst an outright deception. But this is precisely what the claim that "irreducibly complex organs can actually be reduced" amounts to!

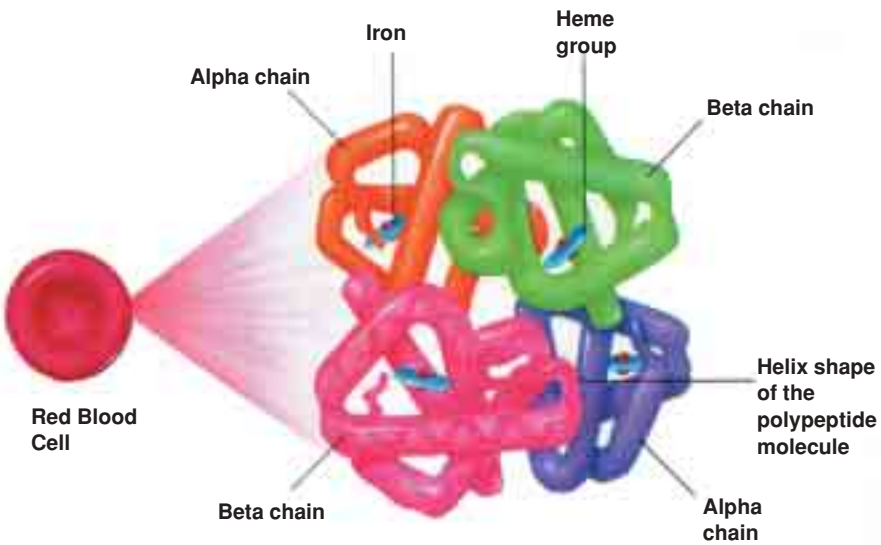
It is also erroneous to portray the degree of complexity among the hemoglobin molecules in different living things as evidence for evolution. This is because what evolutionists need to do is not just to determine the degree of complexity between two different hemoglobin molecules, but rather to explain how hemoglobin (and all other proteins) came into being in the first place.

By claiming that a simple hemoglobin molecule turned into a more complex one, the NAS authors may imagine that they have accounted for the origin of an irreducibly complex molecule; however, they overlook (or else choose to ignore) the fact that **the hemoglobin they refer to as "simpler" itself has an irreducibly complex structure.**

The way the NAS authors seek to avoid the problem of irreducible complexity is by dreaming up a series of "primitive" intermediate stages for these complex structures. They write that "Natural selection can bring together parts of a system for one function at one time and then, at a later time, recombine those parts with other systems of components to produce a system that has a different function." (*Science and Creationism*, p. 22) Fine, but what are these different functions? That is the real question, and it is one to which the NAS authors have no answer and for which they are unable to offer any evidence or examples. What they need to do is to give an example of a structure or organ acquiring functions while changing from a simpler to a more complex form, and to back this up with evidence. Moreover, it is also apparent that if these intermediate functions are also com-



HEMOGLOBIN MOLECULE



plex, they will still be left facing the same difficulty.

In addition, the NAS authors also refer to natural selection as if it were a conscious force. They speak of it as though it already knew what the future desired function was and as though it always produced a useful function by gradually adding the appropriate components together. In point of fact, however, natural selection is an unconscious natural mechanism and cannot act according to any plan.

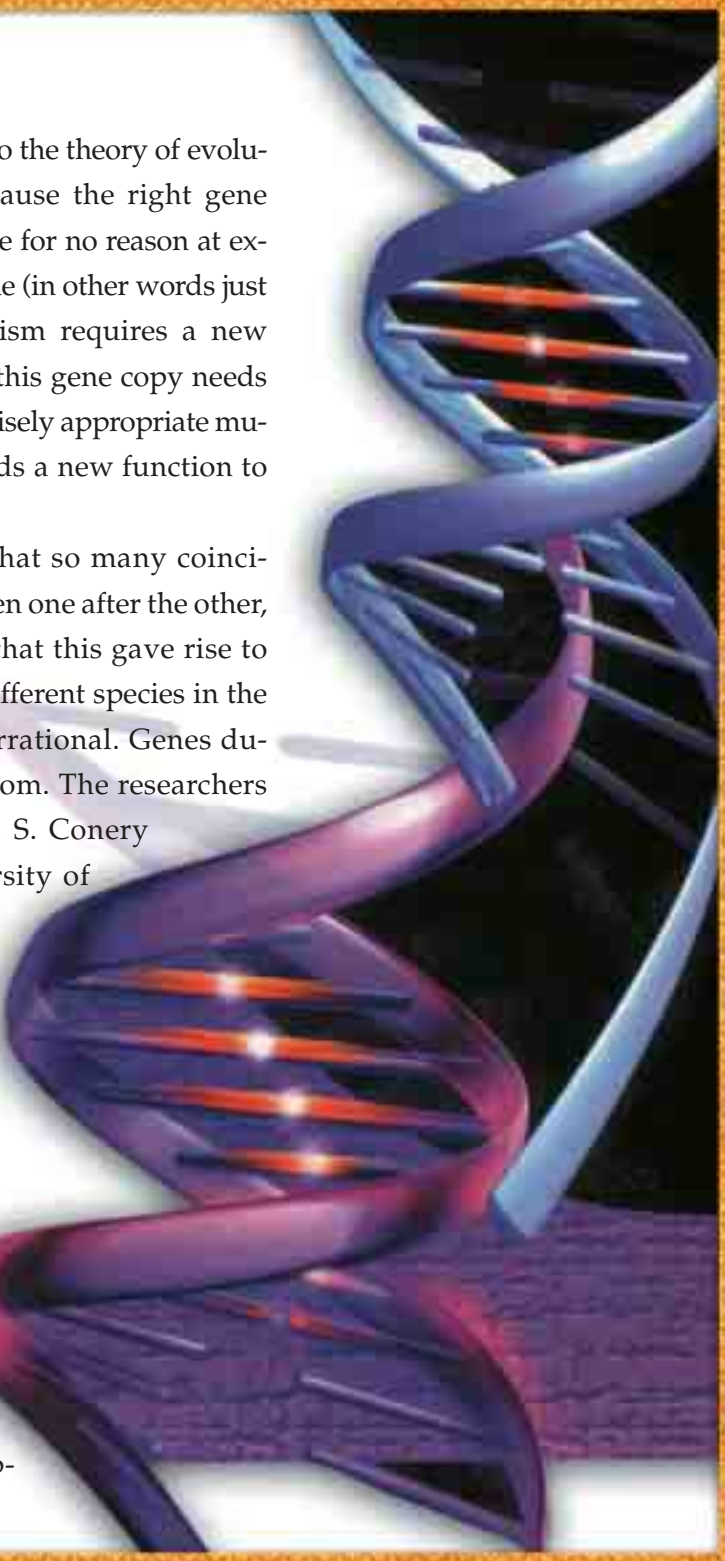
What is the origin of the particular organs and systems in living things? How did new genetic information to describe them come about? Like all evolutionists, the NAS authors have not the slightest idea. As we saw in earlier chapters, mutations cannot acquire beneficial characteristics for living things. So, how are the new functions they hope will be chosen by natural selection acquired? That vital question goes unanswered. The world's most prominent evolutionists merely say, "Natural selection does this," without offering any evidence, believing that they have thus put forward an evolutionary explanation of the irreducible complexity in the structures and systems in living things.

For example, the NAS evolutionist authors attempt to explain the complicated biochemical processes that take place during blood clotting in terms of genes' being duplicated and altered, and their effects amplified by natural selection. Gene copying is one answer that the NAS authors give to the question of how genetic information can be added to a living thing. According to this account, a living thing makes more than one copy of its genes. A mutation then takes place in that extra copy and a change thus takes place in the living thing's genetic information. Since this change occurs in the duplicate gene, it does not affect the organism, and thus the functioning of the gene is not impaired. The mutated gene is a copy.

Unfortunately, however, the gene duplication explanation con-

tributes nothing to the theory of evolution. This is because the right gene needs to duplicate for no reason at exactly the right time (in other words just when the organism requires a new function). Then, this gene copy needs to undergo a precisely appropriate mutation, which adds a new function to the organism.

To believe that so many coincidences can happen one after the other, and to imagine that this gave rise to the millions of different species in the world, is quite irrational. Genes duplicate very seldom. The researchers M. Lynch and J. S. Conery from the University of Oregon have stated that gene duplication takes place on average once every 100 million years.[11] Furthermore, the great majority of duplicated genes have been found to disap-



pear within a few million years.[12] If we consider that the most obvious characteristic of structures with irreducible complexity is that they consist of several components, then it can be seen just how impossible it is for a gene to bring together the right components at exactly the right time by duplication.

In fact, even evolutionists greet the claim that gene duplication gave rise to evolution with suspicion. Lynch and Conery, for instance, state that the mechanisms that allow gene duplication to contribute to evolution are unclear:

> However, it is unclear how duplicate genes successfully navigate an evolutionary trajectory from an initial state of complete redundancy, wherein one copy is likely to be expendable, to a stable situation in which both copies are maintained by natural selection. Nor is it clear how often these events occur. [13]

The impossibility of the mechanisms favored by the NAS as gradually giving rise to evolution is evident. Moreover, the NAS authors, who claim that the blood clotting process may have gradually evolved by means of these mechanisms, need to prove these claims in some detail. For example, they should address such questions as "which genes underwent what kind of change, when, and how?," or "what feature or function did this change bring about that was advantageous to the organism, without causing collateral damage?" A diagram of the blood clotting process can be seen in the figure on page 240. It is clear from this diagram that the chance mechanisms of evolution cannot possibly answer the question of how such a system came into being, and that evolutionist accounts are nothing more than baseless demagogy.

Finally, the NAS booklet considers the irreducible complexity in the structure of the eye. The error of logic made regarding hemoglobin is repeated here, where it is suggested that the complex eye evolved from

a simpler one. The fact is, however, that every eye, no matter what its level of complexity, still possesses irreducible complexity. The NAS authors claim that the complex eye gradually formed from a single, very simple, light-sensitive spot, saying "The steps proceed from a simple eye spot made up of light-sensitive retinula cells (as is now found in the flatworm)..." (*Science and Creationism*, p. 22) The point that needs to be considered here, though, is how simple—or rather how complex—the spot referred to by the NAS authors actually is.

In order for "sight," even in its simplest form, to emerge, certain cells in an organism need to become sensitive to light and to possess the ability to transform that sensitivity into electrical signals. Then, a special nerve network is needed to transfer these signals from the light-sensitive cells to the brain, as well as a visual centre in the brain to analyze that information. It is irrational to suggest that all this could happen by chance, all at once and all in the same creature. In his book *Evrim Kurami ve Bagnazlik* (The Theory of Evolution and Bigotry), written with the aim of defending the theory of evolution, the Turkish evolutionist author Cemal Yildirim accepts this fact in these words:

> In order to see, there is a need for a large number of mechanisms to cooperate: we may speak of links between the eye and its internal mechanisms and between the eye and the special center in the brain. How did this complex structure come about? According to biologists, during the process of evolution the first step in the formation of the eye was taken with the formation of a small, light-sensitive region in the skins of certain primitive creatures. However, **what evolutionary advantage could such a small occurrence bestow on an organism all by itself?** Together with that region, a nerve network connecting it to a visual centre in the brain would also need to be constructed. Unless these rather complex mechanisms are linked together, we cannot expect the phenomenon we know as "sight" to

emerge. Darwin believed that variations emerged at random. If that were so, would it not be a mysterious puzzle how the great number of variations necessary for sight all came together and cooperated at the same time in various different parts of the organism's body? ... The fact is that a string of complementary changes—all of which must work together—are necessary for sight ... Some molluscs' eyes have retina, cornea, and a lens just like ours. How can we account for this construction in two species on such very different evolutionary levels solely in terms of natural selection? … It is a matter for debate whether Darwinists can supply a satisfactory answer to that question…[14]

Another point which makes that question even more of a dilemma for evolutionists is the eye of the trilobite, one of those creatures which suddenly emerged during the Cambrian explosion. This 530-million-year-old compound eye structure is an "optical marvel" which functions with a double lens system, and is the oldest known eye. This totally undermines the evolutionists' claim that "complex eyes evolved from primitive eyes."

This question poses such a severe problem for the theory of evolution that the more detailed the analysis, the more intractible the problem becomes. One important "detail" that needs to be examined at this point is the tale of the "cell becoming sensitive to light." What kind of design does this structure—which Darwin and other evolutionists have glossed over by saying, "sight may have begun by a single cell becoming light-sensitive"—actually have?

BLOOD CLOTTING: AN IRREDUCIBLY COMPLEX SYSTEM

You know that when you cut yourself, or when an old injury starts bleeding, the bleeding will eventually stop. A scab will form over the injury and the wound will heal. This may seem very simple and normal. Yet, biochemical research has revealed that this is the result of the working of an extremely complex system. (Michael Behe, *Darwin's Black Box*, New York: Free Press, pp. 79-97) Damage to, or the absence of, just one of the components of this system will cause it to stop functioning.

The blood must clot at the right time and in the right place, and the clotting must stop once normal conditions have returned. The system must work flawlessly right down to the very tiniest detail.

In the event of bleeding, clotting needs to take place at once if the creature is not to die from loss of blood. It is also essential that the clotting take place all over the wound and, most important of all, that it should only take place at the site of the injury. Otherwise, all the creature's blood will clot and solidify, which will kill it. Blood clotting, therefore, has to be kept under careful control, and has to occur at the right time and place.

The blood platelets or thrombocytes, particles produced by the bone marrow, possess an indispensable property. These particles are the main components of clotting. A protein known as von Willebrand factor ensures that the thrombocytes which keep moving around in the blood do not go past the wound. The thrombocytes become caught at the injury site, and release a substance that

brings others to the same location. Working together, these cells eventually close up the wound. Then, the thrombocytes die, after having served their purpose. The way they sacrifice themselves is just one part of the blood clotting system.

Another protein that brings about blood clotting is thrombin. This substance is only produced where there is an open wound. There must be neither too much nor too little produced. Moreover, production must occur and stop at just the right times. So far, more than 20 bodily chemicals have been identified as playing a role in the production of thrombin. These enzymes can trigger its reproduction or halt it. The system is so controlled that thrombin only forms when there is injury to tissue. As soon as all the enzymes needed for blood clotting have arrived, thrombin trims some protein chains in fibrinogen. The trimmed protein, now called fibrin, soon form a network. This network covers the area where the blood is flowing out. The thrombocytes in the blood also attach themselves to this network. As this accumulation grows thicker, it stops the flow of blood by acting as a plug. What we know as a blood clot is the plug formed by this accumulation.

When the wound is completely healed, the clot falls apart.

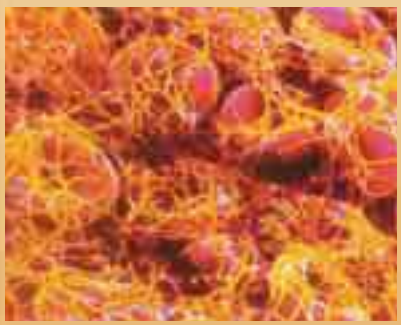
This system—which brings about the formation of a blood clot, and either strengthens or removes it, as necessary—possesses the feature of irreducible complexity. The clotting of the blood emerges from a chain of events in which one component spurs another into action. A diagram setting out the process appears on page 240. It can be seen at a glance just what a complex process is involved. The system works flawlessly, right down to the smallest detail.

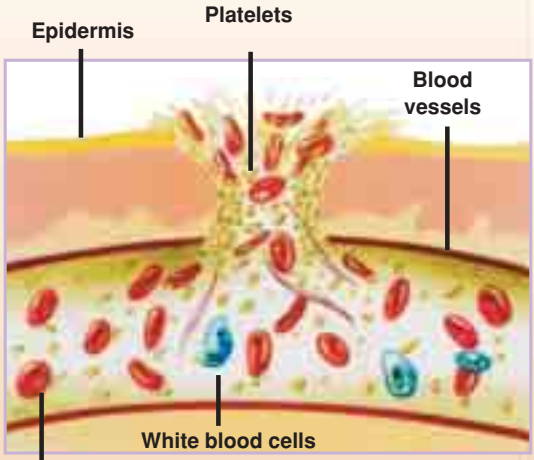
What would happen if even the smallest thing were to go wrong in this magnificently functioning system—if, say, there was blood clotting in the absence of any wound, or if the scab forming over the wound came off too easily? There is only one answer to these questions. In such an event, the bloodstream to such essential organs as the heart, liver, or brain would be clogged with clots. That, in turn, would inevitably end in death.

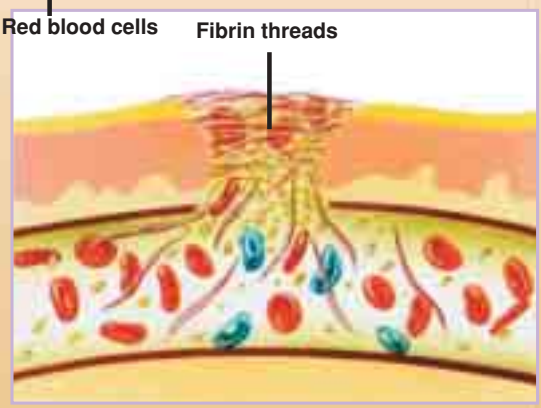
Whenever bleeding takes place anywhere in the body, all the proteins responsible for halting that bleeding immediately travel to the injured tissue. Clotting, which takes place with the cooperation of a great many proteins, is an irreducibly complex process that cannot be explained by evolution.

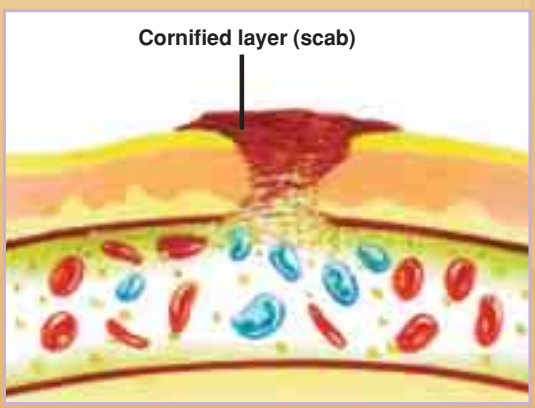
Clotting cells

Blood clotting



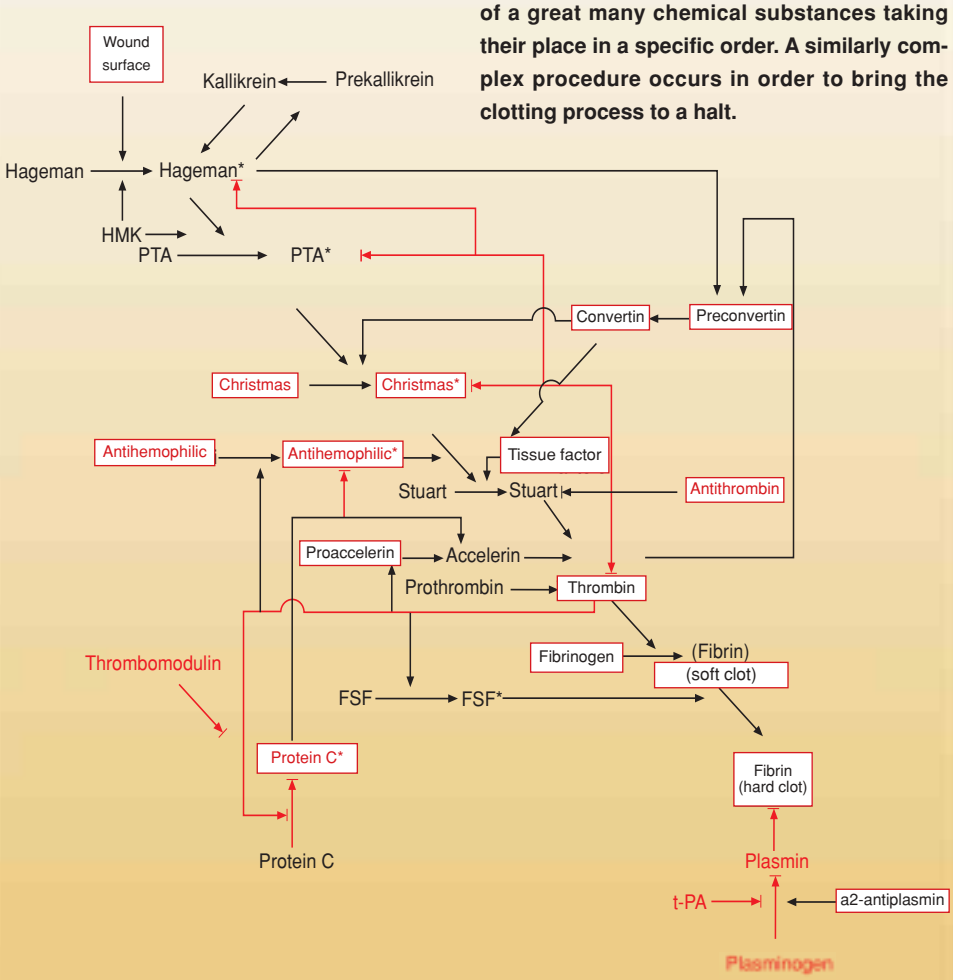






THE CLOTTING MECHANISM

The diagram below shows the blood clotting mechanism. Clotting comes about as a result of a great many chemical substances taking their place in a specific order. A similarly complex procedure occurs in order to bring the clotting process to a halt.



●	→	*Proteins that are involved in promoting clot formation*
●	→|	*Proteins that are involved in the prevention, localization, or removal of blood clots.*

Once again, this shows us that the human body has been flawlessly designed. It is impossible to account for even the blood clotting system in terms of chance and the theory of evolution's notion of "gradual development." This system, every detail of which is the product of a separate plan and calculation, reveals the perfection of creation. Our Lord Who creates us has created our bodies with this system, which protects us throughout the course of our lives from injuries great and small.

Blood clotting is important not just for visible cuts, but also for the repair of ruptured blood vessels, something which happens in our bodies every day. Although you are not aware of it, you constantly experience tiny hemorrhages throughout the course of the day. When you knock your arm against the door frame or sit down hard on a chair, hundreds of tiny blood vessels rupture. The hemorrhaging that occurs as a result of these blows is immediately halted thanks to the coagulation system, and the body later goes on to repair the ruptured blood vessels. If the blow is quite violent, the hemorrhaging that occurs before clotting sets in is rather more violent—which is the reason "bruising" occurs. An individual who lacks this clotting system in the blood will need to be protected from the slightest blow throughout his life, and even wrapped up in cotton wool. Hemophiliacs, who do lack just this system, spend their lives in this very manner. Seriously afflicted individuals tend not to live long. Internal bleeding caused by something as slight as tripping while walking can be enough to kill them. In the face of this, everyone should stop to consider the miracle of creation within his own body and give thanks to God Who has created that body so flawlessly. This body, of which we are unable to create a single system or even a single cell, is a blessing from God. As God states in one verse:

We created you so why do you not confirm the truth? (Qur'an, 56: 57)

THE COMPLEX SYSTEM OF SIGHT

How does the system of sight, which the NAS evolutionists gloss over as being a simple structure, work? How do the cells in the retina perceive the light particles that fall on them?

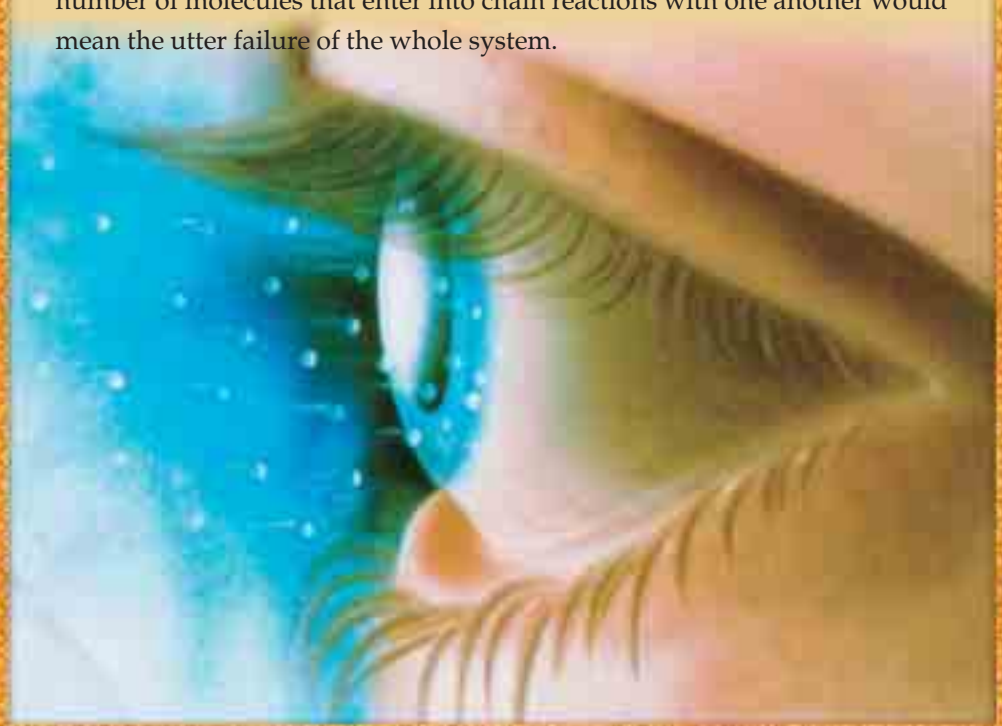
The answer to this question is rather complicated. When photons strike the cells in the retina, they activate a chain reaction, rather like a domino effect. The first of these dominoes is a molecule called "11-cis-retinal," which is sensitive to photons. The moment a photon strikes it, the 11-cis-retinal molecule changes shape. This change also alters the form of the protein "rhodopsin," which is linked to 11-cis-retinal. In this way, rhodopsin becomes able to bind to another protein called "transducin."

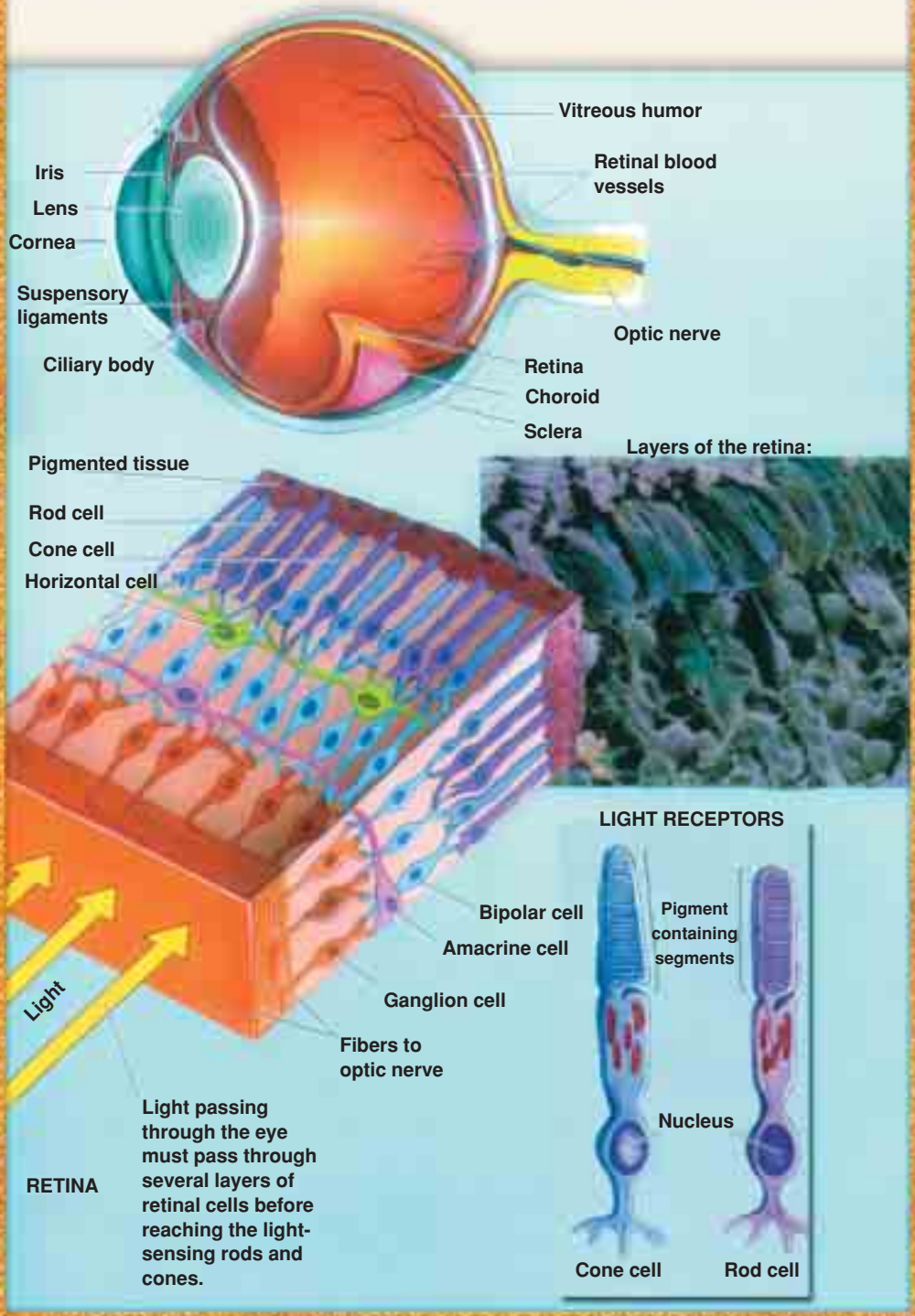
Before reacting with rhodopsin, transducin is attached to another molecule called GDP. When it binds to rhodopsin, it releases GDP and attaches to another molecule called GTP. Two proteins (rhodopsin and transducin) and one phosphate molecule (GTP) are now attached to one another. This entire structure is known as "GTP-transducinrhodopsin." Yet, the process has barely begun. The new compound GTP-transducinrhodopsin is now compatible with yet another protein, called "phosphodiesterase," which is already in the cell. This connection is immediately made. As a result of this, the phosphodiesterase protein acquires the ability to split a molecule called cGMP, which is again already in the cell. Since this process is carried out by not just a few, but by millions of proteins, the level of cGMP in the cell falls rapidly.

What has all this to do with sight? In order to find the answer to this question, let us have a look at the final stage of this interesting chemical reaction. The drop in the density of cGMP within the cell affects the "ion channels" in the cell. These are proteins that regulate the number of sodium ions in the cell. Normally, the ion channel allows sodium ions to flow into the cell from outside, while another molecule expels the unnecessary ions, thus creating a balance. When the number of cGMP molecules falls, so does the number of sodium ions. This quantitative change gives rise to an electrical imbalance in the cell. This electrical imbalance affects the nerves connected to the cell, and what we call an "electrical impulse" forms. The nerves forward these signals to the brain, where what we refer to as "sight" is experienced.[1]

In short, a single photon strikes just one of the cells in the retina, and thanks to the ensuing chain reaction, the cell is enabled to produce an electrical impulse. This varies according to the energy of the photon, giving rise to the concept of "strong" and "weak" light. One of the most interesting aspects of this whole process is the fact that all of the complex reactions described above take place in one-thousandth of a second, at most. Even more interesting is the fact that when this chain reaction is completed, certain special proteins within the retinal cell—including 11-cis-retinal, rhodopsin, and transducin—return to their previous states. Thus, as the eye is struck by new photons every moment, the chain reaction system within the cells of the retina enables the person to perceive every one of these photons.

The process of seeing that we have summarized here actually contains a great many more complex details. Yet, even this crude picture is enough to show what a magnificent system we are dealing with. The eye is such a complex, such a finely tuned system that it is totally irrational to maintain that it could have come about by chance. The system possesses a complex structure that is completely irreducible. The absence of even a single one of the huge number of molecules that enter into chain reactions with one another would mean the utter failure of the whole system.




Vitreous humor
Iris
Retinal blood vessels
Lens
Cornea
Suspensory ligaments
Optic nerve
Ciliary body
Retina
Choroid
Sclera
Layers of the retina:
Pigmented tissue
Rod cell
Cone cell
Horizontal cell
LIGHT RECEPTORS
Bipolar cell
Pigment containing segments
Amacrine cell
Ganglion cell
Light
Fibers to optic nerve
Nucleus
RETINA
Light passing through the eye must pass through several layers of retinal cells before reaching the light-sensing rods and cones.
Cone cell
Rod cell

The lethal blow that this system deals to the Darwinist explanation of life as something random is obvious. Michael Behe makes this comment on the chemistry of the eye and the theory of evolution:

> Now that the black box of vision has been opened, **it is no longer enough for an evolutionary explanation of that power to consider only the anatomical structures of whole eyes**, as Darwin did in the nineteenth century (and as popularizes of evolution continue to do today). Each of the anatomical steps and structures that Darwin thought were so simple actually involves staggeringly complicated biochemical processes that cannot be papered over with rhetoric.[2]

The irreducibly complex structure of the eye causes the Darwinist theory to "absolutely break down,"[3] as Darwin himself put it. It also demonstrates conclusively that life is created with a most superior design.

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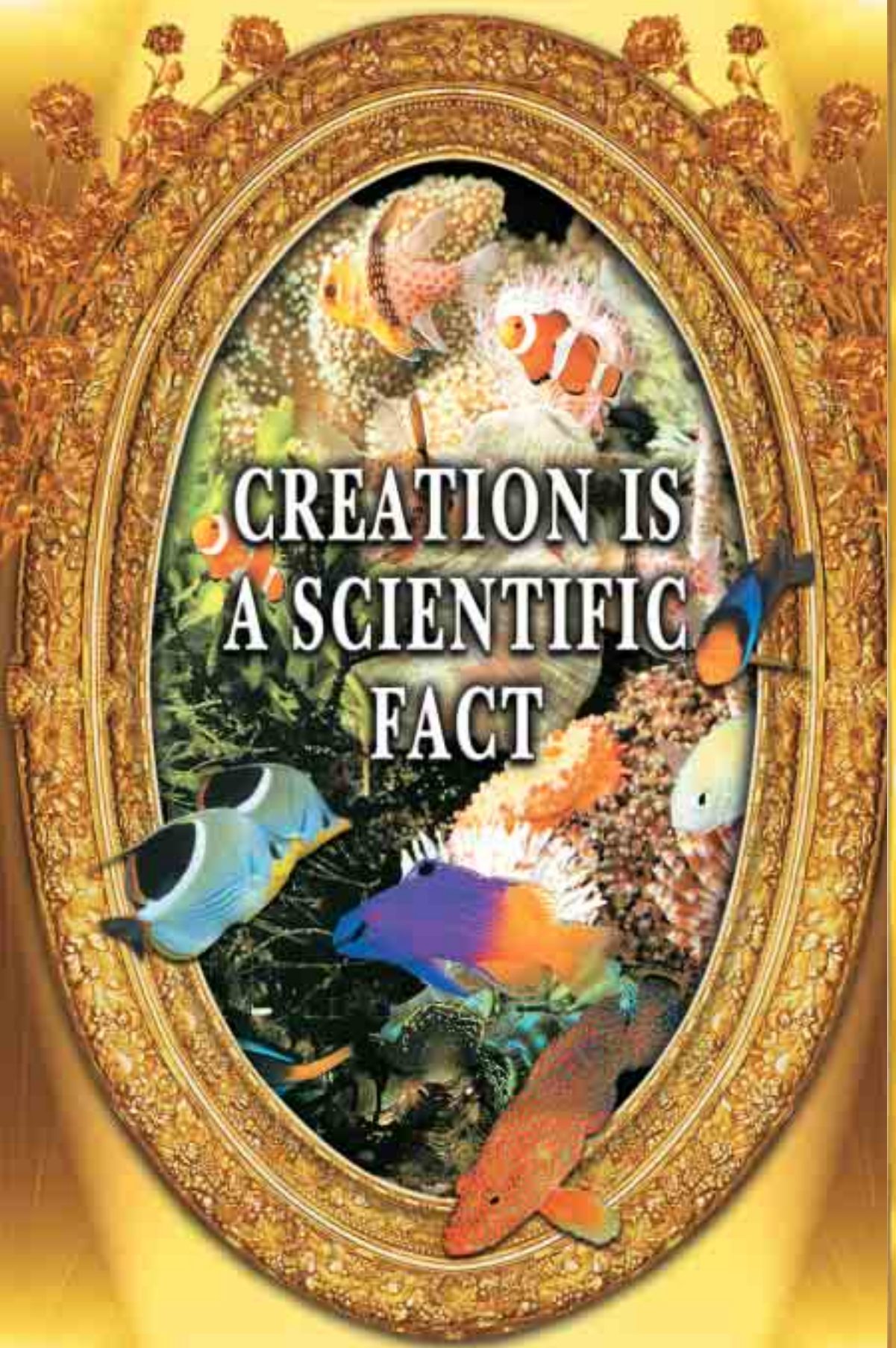
1. Michael J. Behe, *Darwin's Black Box*, The Free Press, New York, 1996, pp. 18-21.
2. Michael J. Behe, *Darwin's Black Box*, The Free Press, New York, 1996, p. 22. (emphasis added)
3. Charles Darwin, *The Origin of Species: A Facsimile of the First Edition*, Harvard University Press, 1964, p. 189.


CREATION IS
A SCIENTIFIC
FACT

The NAS repeats the evolutionists' classic claim and suggests that creationism is not a scientific explanation (*Science and Creationism*, p. ix). The fact is, however, that creationism is very definitely supported by scientific findings, especially at the present time.

In order to see whether a theory is scientific, its claims must be tested by observation and experiment, and the results must be shown to be compatible with those claims. The explanation that living things are created with an intelligent design can be tested in precisely this scientific manner. What emerges from these tests is the fact that living things and the whole universe were created.

We should also make clear that any unprejudiced person who is capable of thinking freely, and who is not fanatically devoted to a particular ideology, can easily see that the entire universe and all living things were created with a flawless design. They are clearly the work of a Creator Who possesses infinite power and intelligence. To see this, it is sufficient for anyone to consider his own body, or a single flower in his home, or the air he breathes. However, we feel the need here to set out some of the proofs that living things were created in accordance with an intelligent design, in the hope that it will assist those people who are fanatically devoted to the theory of evolution to think and use their powers of reason.

1. Living things did not evolve from one another in stages and through random processes, but were created at a single moment, together with their particular body plans.

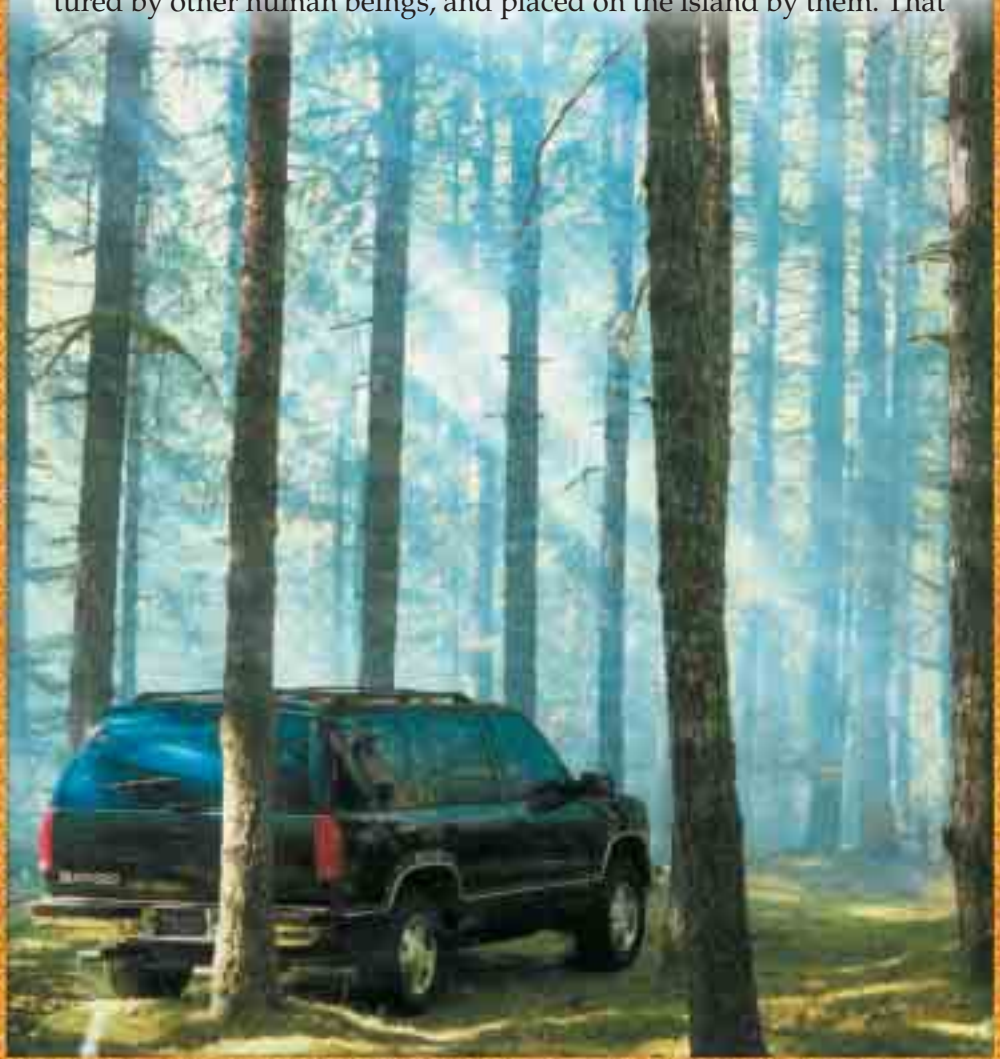
The most certain way of testing the truth set out here is by means of the fossil record, which definitively confirms the creation account. The life forms in the layers of the Earth emerge fully formed, suddenly, and with all their individual features. The Cambrian explosion, which took place some 550 million years ago, is one of the clearest proofs that living things are created. The 100 or so phyla in these strata emerge all of a sudden, with no evolutionary ancestors below them in the fossil record. The sudden appearance of life forms belonging to 100 different phyla, on an Earth in which there had only been single-celled and a few simple multi-celled creatures, and the fact that they possessed very different and exceedingly complex organs and systems, is of course evidence of an intelligent design, and thus of creation. The reason why the NAS authors neglect to refer to the Cambrian explosion even once throughout their book is their desire to conceal these facts.

2. The complex structures and systems in living things cannot have come about by random natural mechanisms.

Another proof that living things are created is the complex structures and systems that can only be explained by intelligent design. Many organs and structures—such as the cell, the bacterial flagellum, the blood clotting system, proteins, the brain, and the eye—all possess an extraordinary design and irreducible complexity. To claim that these systems came into being from unconscious, inanimate matter and as the result of chance natural events is even less logical than claiming that the video or television in your home came into being from a pile of scrap caused by an earthquake. If there is a complex, meaningful design somewhere, which cannot be accounted for by unconscious effects, then that means there is an intelligent power which brought that design into being. This much is self-evident.

One of the irrational objections which evolutionists put forward in order to deny this obvious truth is the question of how design is to

be identified. The answer to this is very clear. First and foremost, common sense shows us the way here. For instance, imagine you were shipwrecked on an unspoiled, forested island, and believed yourself to be the first person who had ever set foot there. Then, if you came across an automobile upon the shore, you would not conclude that the car had come into being all by itself, as the result of chance. Despite the fact that you had not seen anyone else on the island, you would surely conclude that that car had been designed and manufactured by other human beings, and placed on the island by them. That



is to say, the evidence (the car) would lead you to understand that you were not the first rational being to visit the island.

Regarding the question of how design can be identified in biological structures, the scientific criteria put forward by the mathematician William Dembski may serve as a guide. In his book *The Design Inference: Eliminating Chance Through Small Probabilities*, Dembski mathematically shows at which stage it is impossible for a structure to be explained by chance and when the existence of an intelligent design is beyond dispute. Evolutionists are hopeless in the face of these criteria of Dembski's.

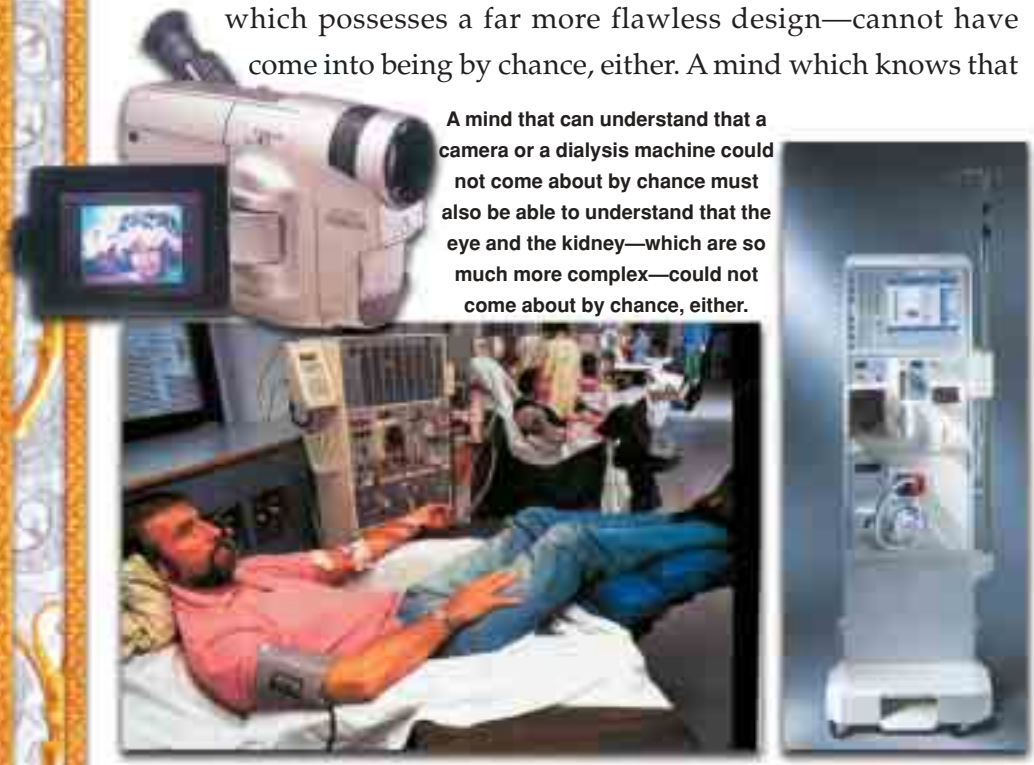
The way out of this dilemma sought by evolutionists is the same one we have examined elsewhere: they claim that structures referred to as complex could actually evolve by means of natural selection. Yet, this is a very easy claim to test. For example, it can be observed in a laboratory whether, over thousands of generations, a bacterium lacking flagella comes to develop these irreducibly complex structures when exposed to mutations. If, as the result of this experiment, flagella appear, the claim that chance and natural selection can lead to irreducibly complex structures will be meaningful. Even the appearance of a single new protein in that bacterium would be chalked up as a success for evolutionists. Yet, no experiment has ever produced such a result. In fact, to conduct such an experiment would be as futile as observing a pile of scrap for a million years to see whether a jet airplane will emerge.

In fact, we are witnessing the collapse of this strange logic, which is unable to see the most obvious facts due to a fanatical devotion to materialist philosophy. If a person sees a note reading "I SHALL BE HOME AT 10" on the table when he enters a room, he will not imagine that the note was written by chance—say, by the wind blowing through the window and knocking over a bottle of ink. He will be

sure that it was written by his wife or children. There is no need for an investigation using scientific methods here. The things that can come into being of their own accord and the things that cannot—that is, the things that are and are not the work of intelligent design—are in fact quite obvious. For instance, if you are walking in a forest and notice

that a tree has fallen over, you will think that it fell over by itself or else was pushed over by the wind or some other force. However, if only the trees to the right of the footpath have been knocked over, you will realize that there has been intelligent design here, and that intelligent beings have come here and felled the trees one by one, according to a plan.

Therefore, let us consider living things and creation. If we learn that, at a time when there was not even one living thing on the Earth—when the Earth consisted only of inanimate soil, rocks, minerals, and sand—if under these conditions a cell no less complex than a city suddenly sprang into existence, this will prove that it was created by a force possessed of consciousness and intelligence. The same mind which knows that a camera cannot come into being by chance can also see that the eye—which was the model for the camera and which possesses a far more flawless design—cannot have come into being by chance, either. A mind which knows that



A mind that can understand that a camera or a dialysis machine could not come about by chance must also be able to understand that the eye and the kidney—which are so much more complex—could not come about by chance, either.

a dialysis machine cannot be the work of chance—that such a machine is designed, produced, assembled, and used by doctors, engineers, and technicians—can also understand that the kidneys—which were used as the model for the dialysis machine, but which are much more efficient and adaptable than it is, and which have a far greater capacity than the machine despite their much smaller size—cannot be the work of chance, either. A mind which knows that thousands of intelligent, educated, experienced, and talented engineers, technicians, programmers, and designers joined forces to produce a computer can also see that the human brain—with a complexity and abilities thousands of times greater than a computer's—could not be the work of chance, either.

Those who are blind to these evident truths have slavishly devoted themselves to materialism and Darwinism, as if to a pagan religion. In order not to lose their materialist worldviews, evolutionists reject out of hand the ideas of all those who seek to offer a non-material explanation of the world, life, and the laws of nature, without even listening to what they have to say. It is clear that the NAS authors and other evolutionists who criticize the truth of creation have never thought about creation or examined their own claims. Their only aim is to hold onto their ideology, which the words they speak and write out of their anxiety to do so make abundantly clear.

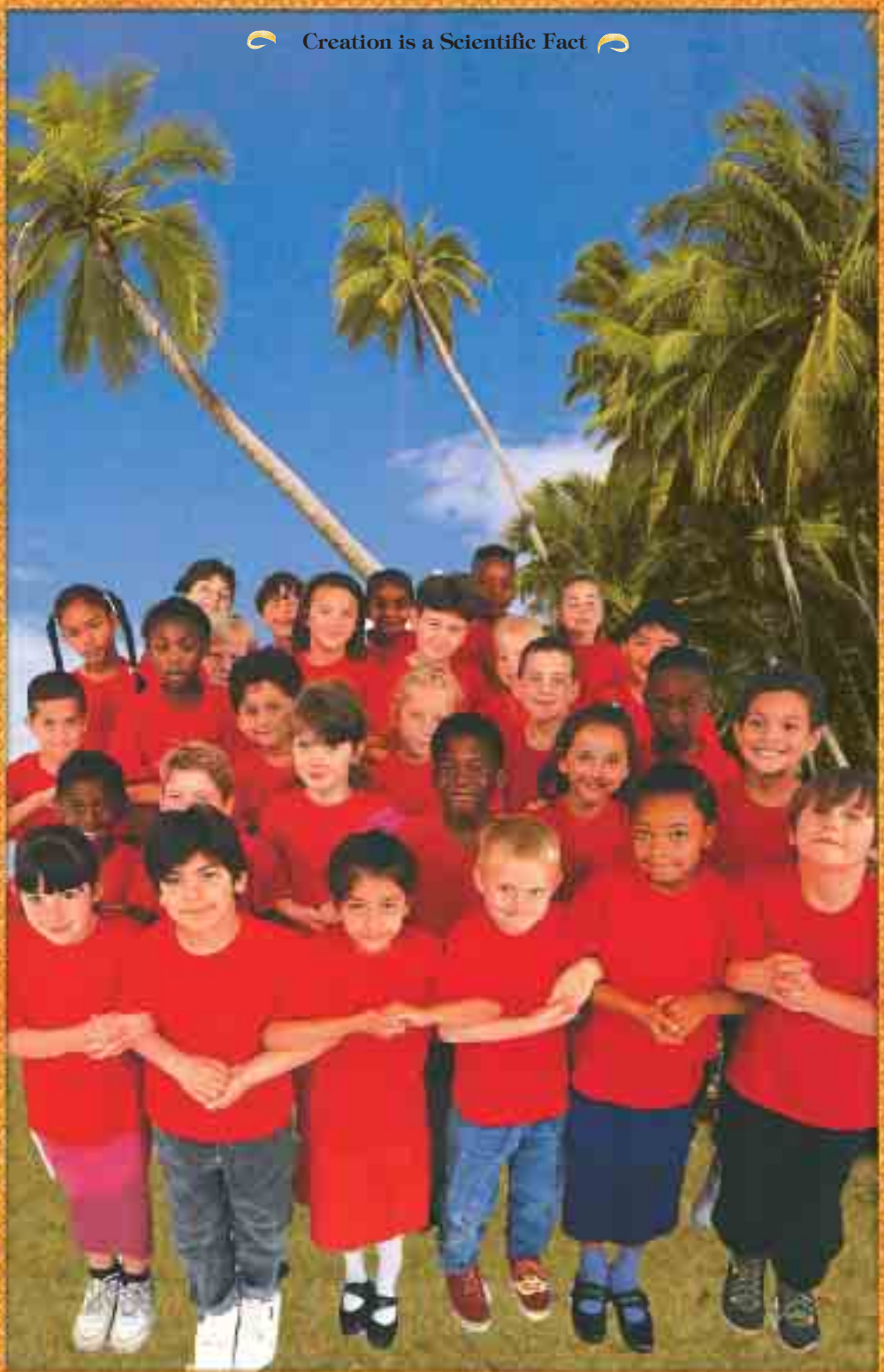
Returning to the above example, we can draw an analogy to illustrate the peculiar position in which evolutionists finds themselves. As you may recall, we earlier described how if you believed you were the first human being to set foot on a deserted island, you would naturally understand that other people had been there before you as soon as you came across an automobile. But what if you were a person who was extraordinarily and doggedly convinced that he was indeed the first person on that island? In that case, you would have to account for the presence of the car, although none of the explanations

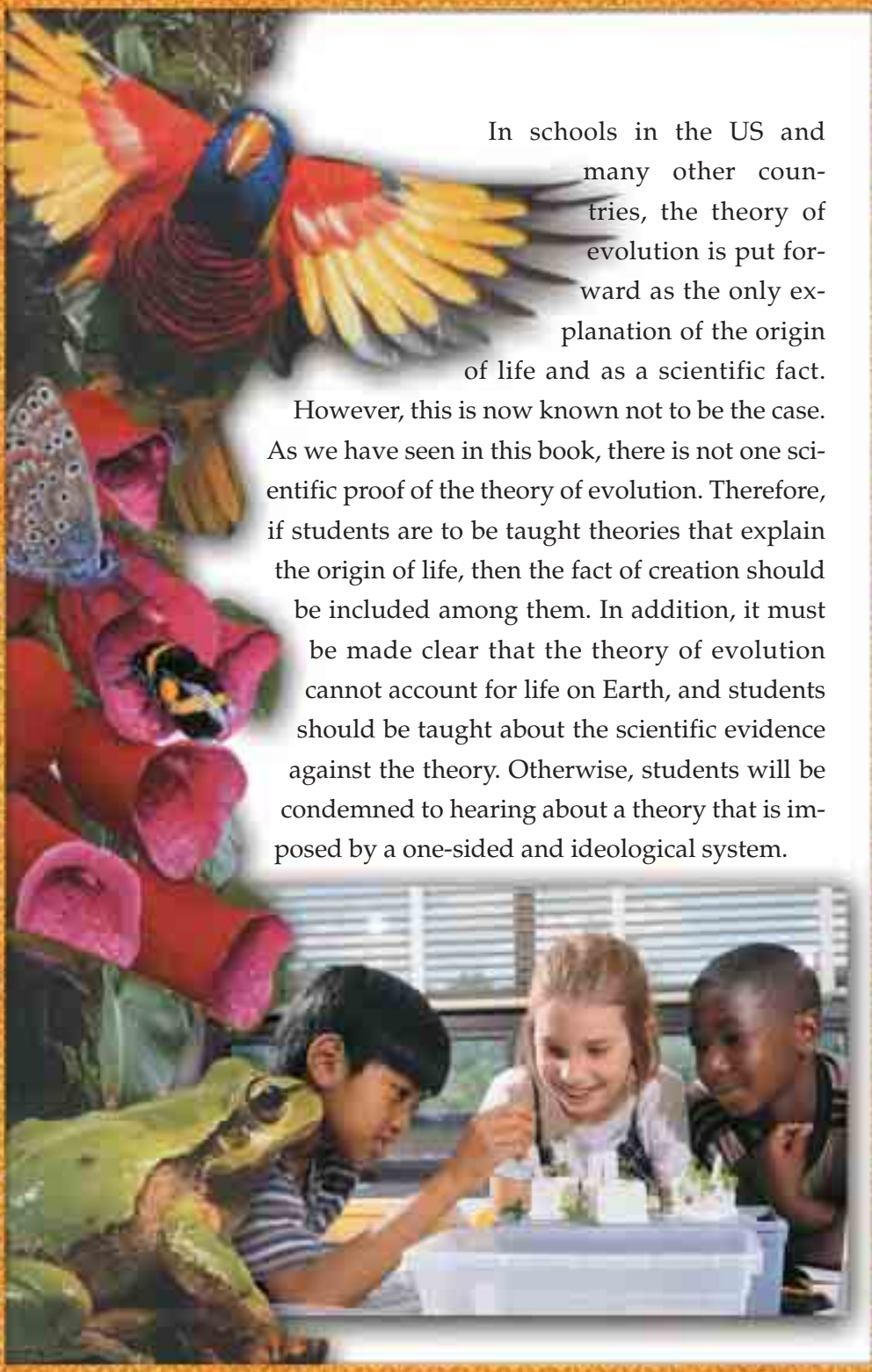
you came up with would be anything more than nonsense. You might persist in your illogicality, even to the extent of claiming that the car had been carried to the island from the nearest piece of dry land by a storm, or else that over millions of years storms had brought together sticks and twigs, animal skins and bones, out of which the car had emerged. You might spend your entire life in coming up with theories in an attempt to prove that you were the first person on the island, and that the car had not been brought there by someone else. However, close attention would reveal that your true aim was not to discover the truth, but rather to defend the "fixation" under which you were laboring. In other words, you would be ignoring what the evidence plainly showed you, in order to be able to continue believing as you chose.

Evolutionists are no less nonsensically and illogically stubborn and bigoted. Their aim is not to discover the true origin of life, but to keep the only ideology in their lives—materialism—alive. That is why they fail to see the most obvious truths, or, if they do see them, why they hide and distort them. The NAS booklet is the clearest example of this.

WHY EVIDENCE AGAINST DARWINISM SHOULD BE IN THE TEXTBOOKS

In their booklet, the NAS authors claim that creationism should not be taught in schools because it is not scientific, but rather linked to religious belief. As has been made clear in the preceding pages, however, creationism is a fact backed up by the scientific evidence, and can of course be included in science curricula. For instance, the intelligent design in the cell, proteins, the brain, and the communication systems between cells can be taught in biology lessons.





In schools in the US and many other countries, the theory of evolution is put forward as the only explanation of the origin of life and as a scientific fact. However, this is now known not to be the case. As we have seen in this book, there is not one scientific proof of the theory of evolution. Therefore, if students are to be taught theories that explain the origin of life, then the fact of creation should be included among them. In addition, it must be made clear that the theory of evolution cannot account for life on Earth, and students should be taught about the scientific evidence against the theory. Otherwise, students will be condemned to hearing about a theory that is imposed by a one-sided and ideological system.

It is the popular reaction against this dogmatic Darwinist order that lies at the heart of the debate on the place of evolution in the science curriculum in America.

Until recently, criticizing Darwinism meant risking a severe backlash. Teachers who criticized Darwinism were removed from their posts, scientists' papers were not published in scientific journals, and a fierce negative propaganda campaign was waged against such people in the media. Yet, as the scientific evidence against Darwinism began to increase in quantity at a great speed, criticisms of Darwinism started to attract more support and have more influence. One outcome of this was the effect on the education system. Many scientists, politicians, teachers, and parents who realized that the theory of evolution was not a scientific fact initiated an intensive campaign against the one-sided teaching of the theory of evolution. As a result of this campaign, the decision was taken to allow the evidence contrary to Darwinism in schools in the states of Georgia and Ohio. The first decision came from Georgia, one of the states in the southeast of the USA. ABC News reported the story in these terms on its website:

> The board of Georgia's second-largest school district voted Thursday night to give teachers permission to introduce students to varying views about the origin of life, including creationism. The proposal, approved unanimously by the Cobb County school board, says the district believes "discussion of disputed views of academic subjects is a necessary element of providing a balanced education, including the study of the origin of species..."
>
> Supporters, including high school junior Michael Gray, said the board's choice encouraged academic freedom. "I had to do a term paper about evolution and there were just things that I could disprove or have alternate reasons for," said Gray, who attends Pope High School. "I want my brother and sister to be given the option

and not told it's the absolute truth."[1]

Darwinist circles rushed to battle stations in the face of this decision. The interesting thing here is that instead of waging an intellectual struggle, evolutionists resorted to legal means instead. According to ABC News, Barry Lynn, a board member of Americans United for Separation of Church and State, said that they would take Cobb County school board to court. Thus, Lynn employed the same method as that used by the Inquisition in the Middle Ages: he attempted to suppress a scientific opinion by judicial means.

The Inquisition failed to maintain its dogmas—such as the Ptolemaic model of the universe—and scientific discoveries won the day. In the same way, Darwinist circles will fail to keep the dogma known as evolution alive.

Following the state of Georgia, the Ohio State Education Board required that students learn about the evidence against the theory of evolution. An article by John G. West, of the Discovery Institute founded in Seattle, a body which supports work critical of Darwinism, described the collapse of Darwinism and the fanaticism and primitive tactics of its proponents:

> After months of debate, the Ohio State Board of Education unanimously adopted science standards on Dec. 10 that require Ohio students to know "how scientists continue to investigate and critically analyze aspects of evolutionary theory."
>
> Ohio thus becomes the first state to mandate that students learn not only scientific evidence that supports Darwin's theory, but also scientific evidence critical of it… Ohio students will need to know about scientific criticisms of Darwin's theory in order to pass graduation tests required for a high-school diploma.
>
> Ohio is not the only place where public officials are broadening the curriculum to include scientific criticisms of evolution. In

September, the Cobb County School District in Georgia, one of the largest suburban school districts in the nation, adopted a policy encouraging teachers to discuss "disputed views" about evolution as part of a "balanced education." And last year, Congress in the conference report to the landmark No Child Left Behind Act urged schools to inform students of "the full range of scientific views" when covering controversial scientific topics "such as biological evolution."

After years of being marginalized, critics of Darwin's theory seem to be gaining ground. What is going on? And why now?

Two developments have been paramount.

First, there has been growing public recognition of the shoddy way evolution is actually taught in many schools. Thanks to the book *Icons of Evolution* by biologist Jonathan Wells, more people know about how biology textbooks perpetuate discredited "icons" of evolution that many biologists no longer accept as good science. Embryo drawings purporting to prove Darwin's theory of common ancestry continue to appear in many textbooks despite the embarrassing fact that they have been exposed as fakes originally concocted by 19th-century German Darwinist Ernst Haeckel. Textbooks, likewise, continue to showcase microevolution in peppered moths as evidence for Darwin's mechanism of natural selection, even though the underlying research is now questioned by many biologists.

When not offering students bogus science, the textbooks ignore genuine and often heated scientific disagreements over evolutionary theory. Few students ever learn, for example, about the vigorous debates surrounding the Cambrian explosion, a huge burst in the complexity of living things more than 500 million years ago that seems to outstrip the known capacity of natural selection to produce biological change.

Teachers who do inform students about some of Darwinism's unresolved problems often face persecution by what can only be termed the Darwinian thought police. In Washington state, a well-respected biology teacher who wanted to tell students about scientific debates over things like Haeckel's embryos and the peppered moth was ultimately driven from his school district by local Darwinists…

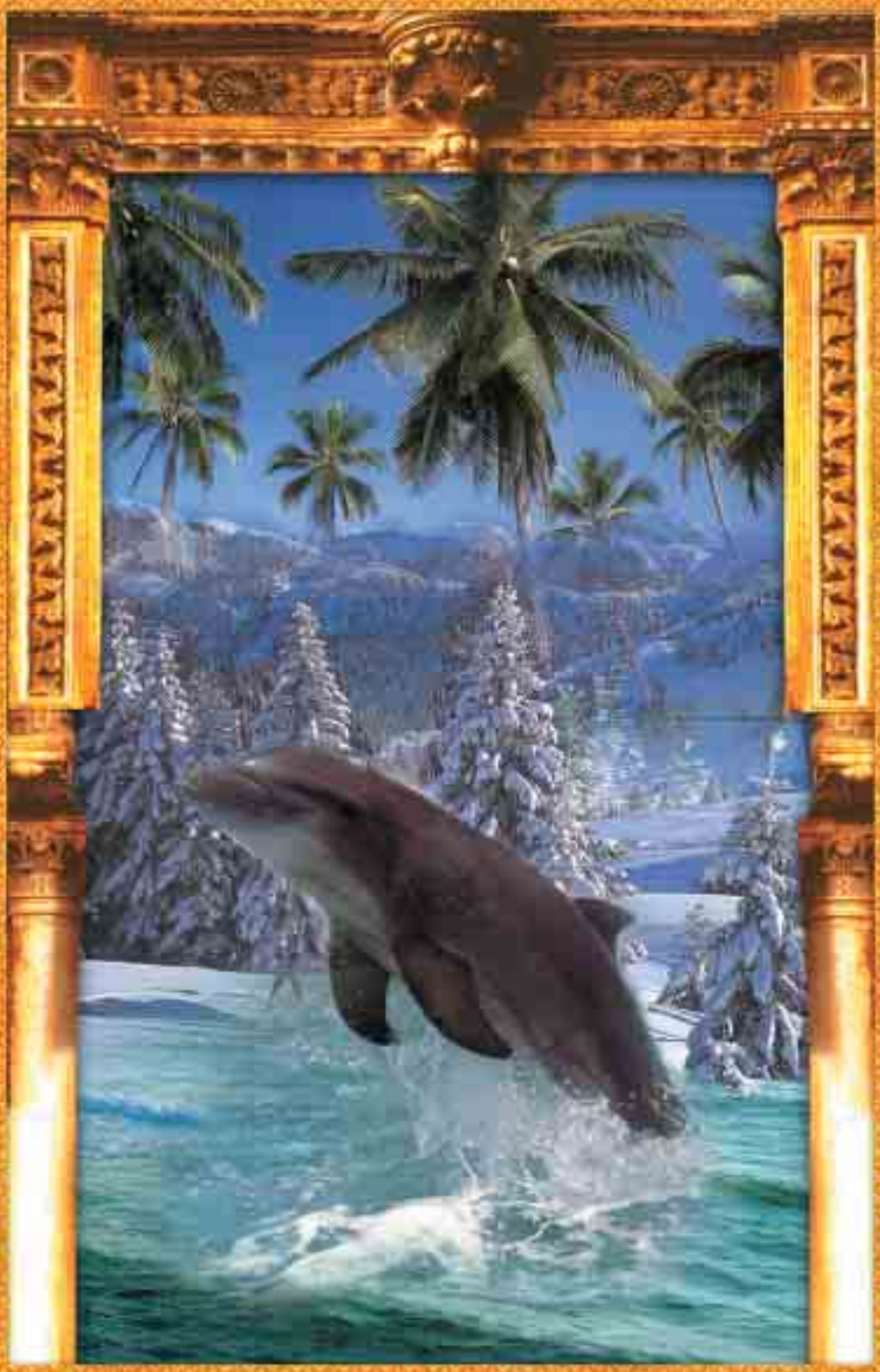
A second development fueling recent gains by Darwin's critics has been the demise of an old stereotype.

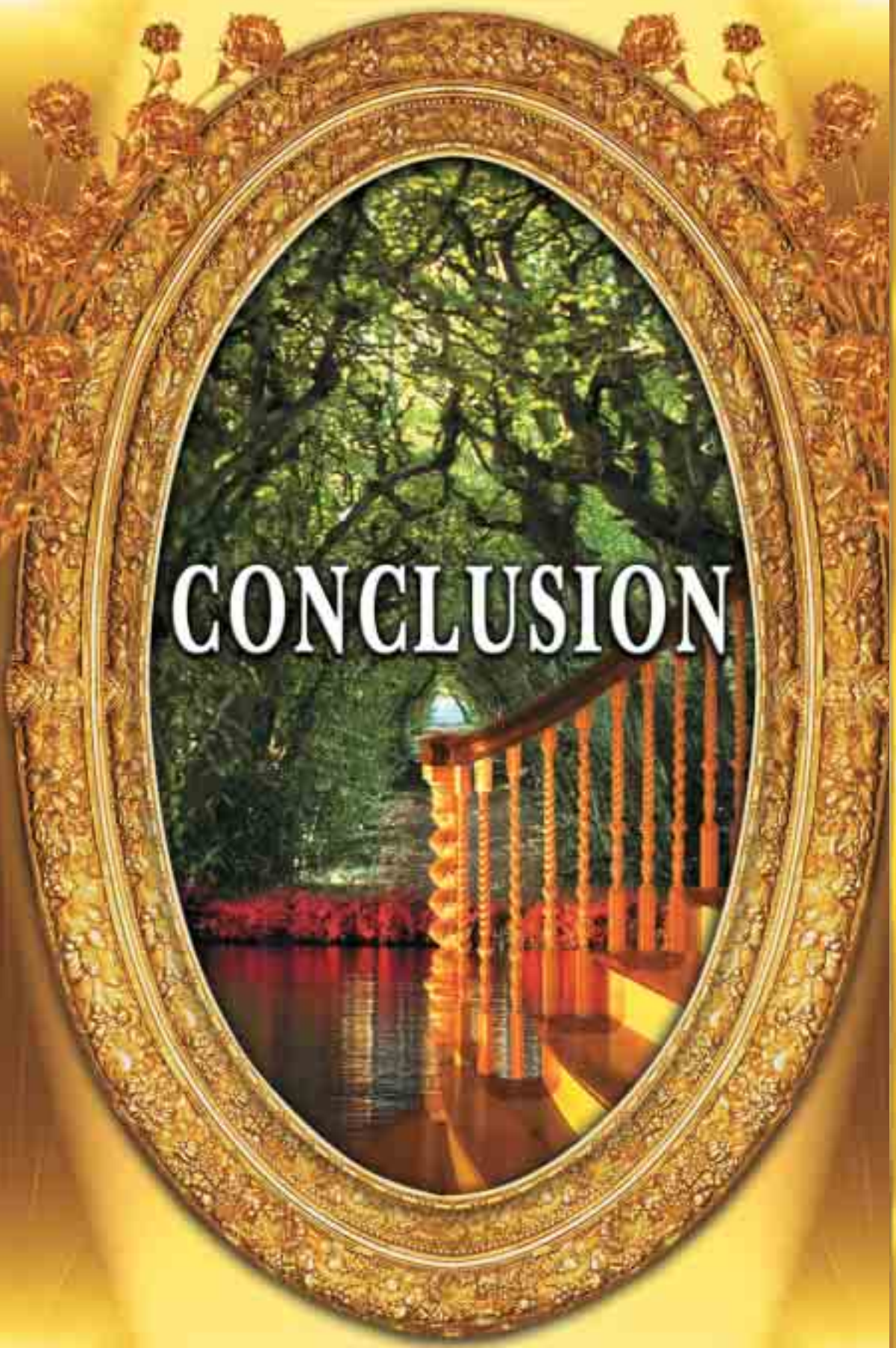
… The new critics of evolution hold doctorates in biology, biochemistry, mathematics, and related disciplines from secular universities, and many of them teach or do research at American universities. They are scientists like Lehigh University biochemist Michael Behe, University of Idaho microbiologist Scott Minnich, and Baylor University philosopher and mathematician William Dembski.

The ranks of these academic critics of Darwin are growing. During the past year, more than 150 scientists—including faculty and researchers at such institutions as Yale, Princeton, MIT, and the Smithsonian Institution—signed a statement expressing skepticism of neo-Darwinism's central claim that "random mutation and natural selection account for the complexity of life."

Deprived of the stock response that all critics of Darwin must be stupid fundamentalists, some of Darwin's public defenders have taken a page from the playbook of power politics: If you can't dismiss your opponents, demonize them.[2]

It appears that this rapid collapse of Darwinism in the United States will continue in the years to come. Only a few decades from now, perhaps, people will look back and wonder how such an empty claim came to dominate the world of science in the twentieth century. Mankind will then accept the truth which the Darwinists tried so hard to conceal: that life and the entire universe are not the work of blind natural forces, but of God, the Lord of infinite might and wisdom.




CONCLUSION

We have seen throughout this book how the theory of evolution has collapsed in the face of findings from such branches of science as paleontology, molecular biology, biochemistry, genetics, and anthropology, and how not one piece of scientific evidence actually supports the theory. As we mentioned in the introduction, the theory of evolution is supported not because there is any scientific evidence in its favor, but because it prepares an allegedly scientific framework for materialists to deny the existence of God. Darwinism is defended not with science, but with philosophy. Random events form the basis of this philosophy. The only explanation of the fact that millions of intelligent people, who have received perhaps the finest education in the world, should believe in such an irrational and unscientific theory is the "spell" that has lingered on since the nineteenth century.

As can be seen from the NAS booklet, evolutionists do not really consider the meaning of what they say and claim. For them, what is important is not the evidence and the real working of nature, but the defense of their ideology at whatever cost. This is why they defend their irrational claims, which violate all known experiments and observations, under a "scientific" mask. As Columbia University professor Erwin Chargaff has stated, "Our time is probably the first in which mythology has penetrated to the molecular level."

Phillip E. Johnson,

known for his books criticizing the theory of evolution, says in his book *Defeating Darwinism by Opening Minds* that evolutionists believe in a preconception without ever thinking about the claims of Darwinism or weighing up what these claims really imply:

> My experience speaking and debating on this topic at universities has taught me that scientists, and professors in general, are often confused about evolution. They may know a lot of details, but they don't understand the basics. The professors typically think that evolution from molecule to man is a single process that can be illustrated by dog breeding or finch-beak variations, that fossil evidence confirms the Darwinian process of step-by-step change, that monkeys can type Hamlet if they are aided by a mechanism akin to natural selection.[1]

In his book *Evolution: A Theory in Crisis*, Michael Denton describes the oddness of a Darwinist's belief that the superior and complex systems in living things could be the work of random processes:

> To the skeptic, the proposition that the genetic programmes of higher organisms, consisting of something close to a thousand million bits of information, equivalent to the sequence of letters in a small library of 1,000 volumes, containing in encoded form countless thousands of intricate algorithms controlling, specifying, and ordering the growth and development of billions and billions of cells into the form of a complex organism, were composed by a purely random process is simply an affront to reason. **But to the Darwinist, the idea is accepted without a ripple of doubt—the paradigm takes precedence.** [2]

Someone who believes that the cell—an organism as complex as the city of New York—emerged as the result of inanimate substances randomly coming together, that human intelligence is the result of mutations, and that the world was suddenly filled with 100 different phyla

as the result of coincidences must genuinely be under a spell. This spell leads those under its power to an "affront to reason."

Others are spellbound by people bearing the title of "scientist," or by institutions called "Academies of Sciences." Such people adopt the logic that everything that scientists say is true, and they simply adopt their views without ever thinking about them. The way to break this spell, which has lain over mankind for approximately two centuries, is to reveal the faulty logic of the theory of evolution and to undermine it, both scientifically and philosophically.

In the present century, mankind has to a large extent been freed of this spell. The book you are holding is reducing the effect of that spell still further, by revealing the invalidity of one of its major sources. By the end of the twenty-first century, this spell will have been lifted entirely, and people will be amazed at the way they were held hostage by such a specious theory for two whole centuries.

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