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A Study of Theories of Naturalistic Evolution and the Scriptural Account of Creation

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A STUDY OF THEORIES OF NATURALISTIC EVOLUTION
AND THE SCRIPTURAL ACCOUNT OF CREATION

by

Milton W. Hopper

A Thesis

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the Faculty of the
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CHAPTER I

INTRODUCTION

For nearly a full century a war of words has been taking place concerning the origin of this universe, the world, man and animals. There have been many books written on the subject besides many private and public debates. None of these have produced a final and lasting, or for that matter satisfying, answer to the problem.

The Problem. It was the purpose of this research to present an adequate and accurate, but not a bulky picture of the problem that arises between the theory of Naturalistic Evolution, that science claims to have discovered, and the Biblical account as it is given in Genesis chapter one and two.

Some of these problems discussed involve the facts as presented by science; there is reason to question some supposed statements and findings of the proponents of the theory of Evolution.

Much of the discussion from both sides of the question has been from the standpoint of reasoning, that is, logical inferences that certain facts seem to indicate. Many facts are built and dependent on other accepted facts. Many of these have not been proven. This system of facts depends one on the other. The fall of one necessitates the fall of many of the others. Therefore science must fight to hold all or at least most of their suppositions.

The problem of Naturalistic Evolution becomes even more difficult and involved when compared to the Scriptural account of the be-

ginning and creation of all things.

This research has presented a comparison of the two views of the origin of all things. They are Naturalistic Evolution as opposed to the Scriptural Doctrine of Creation.

It is necessary to state here that the argument between the two theories has been a stumbling block to young and old alike. Few have the time to study the problem from all its angles and aspects and as a result have accepted the theories and statements of scientists, many of whom work in fields that are not even remotely connected with the field of evolution and consequently have no more authority for their statements than the average man they may pass on the streets. This shortcoming is also evident on the part of clergymen. Many will denounce evolution while at the same time they must confess that they have never made a study of the subject. There seems to be a wide lack of knowledge and understanding on this subject. Many claim to know about it and do somewhat superficially, but lack true understanding of the facts and thought on both sides.

Importance of the Study. This is a very important area of study because of the confusion, misunderstandings, and disagreements between Bible believing fundamental Christians and Naturalistic Evolutionists.

Naturalistic Evolutionists will not accept the Scriptural account of Creation as scientific and Bible believing Christians claim that the Naturalistic Evolutionists are not scientific or fair in their conclusions about evolution.

This was an attempt to clear up the confusion centering around these theories and to establish a better understanding of the problems

involved.

Purposes. It was the purpose of this thesis to (1) point out in the most simple way possible the theories involved in the problem of Naturalistic Evolution, so that they could be used for a comparison with the Scriptural Doctrine of Creation and that there might be a better understanding of the theory. (2) To present the Scriptural Doctrine of Creation, so that it can be used in a comparison with Naturalistic Evolution and that those reading the thesis might have a clear picture of the Scriptural account. (3) It was not the purpose of this thesis to argue from pure reasoning, conjecture, or theory alone, or to argue from the standpoint of only one or a few men acclaiming, or disacclaiming a theory. (4) It was the purpose of this thesis to present facts only.

Limitations. This research was not intended to solve every problem in every detail, but rather it was an attempt to present an outlined and generally thorough description of some problems involved in the theory of evolution and to present, for the help of the Bible believer, facts that will support him intellectually, that he may hold to and believe the narration of creation as presented in Genesis.

There has been no attempt in this research to prove the inspiration, or reliability of the book of Genesis, or for that matter, any part of the Bible; this is assumed. Neither has any attempt been made to directly prove, or disprove any writings of men supporting Naturalistic Evolution. Only their writings have been presented and if they do not agree no attempt has been made to explain why they do, or do not agree.

Method of Procedure. Sources presenting the generally accepted

views were used in accumulating the information that has been used in this thesis. There is a great deal of variance within each theory, so it has been necessary to consider the view that seems to be accepted by the most men within each theory. Many of the references used are a combination, or the summary of a group of men who generally agree within each of the two theories. This was the most fair and accurate method of procedure to secure a representative view of any theory.

Definitions. (1) When God is referred to, it is the Holy Trinity, the Creator; the being with personality and consciousness, the all present, all wise God. (2) Naturalistic Evolution refers to that theory that claims that all life has evolved from something inferior. God is not involved, or considered, all things consist of matter and matter alone. (3) By the word "facts" is meant the discoveries of true science, scientific discoveries that are not interpreted by prejudice or supposition.

Organization of Findings. There are five chapters in all in this thesis. An introduction to the problem was given in chapter one. The Naturalistic Evolutionary theory of the origin of things was presented as accurately and as comprehensibly as possible in chapter two. This included a discussion of the explanation of the origin of the universe and this world, along with the evolutionist's explanation of the development of all organic life from the most minute protoplasm down to the complex animal called man. This included a further discussion of the tremendous amount of time involved in this supposed evolution along with a discussion of the periods of development and the characteristics of each period. All in all a complex system built

to explain the origin of all the things was described in chapter two. This explanation was found to be built upon the theory that all things are in their present state of existence because of the inevitability of progress and development in the universe. God, as a Personal Transcendent creator and sustainer is not generally acknowledged as necessary to our existence in this theory. However, it was found that there are many who call themselves theistic evolutionists, who claim that whereas a transcendent God created all things, evolution was His method.

The Scriptural Doctrine of Creation as related in the Holy Bible was dealt with in chapter three. This doctrine affirms God as the Almighty Creator and ruler of all things. The manner in which God created this universe was also considered. Three main theories were set forth: one, the Interval Theory, which maintains that an indefinite period of time elapsed between the happenings recorded in the first and second verses of the first chapter of Genesis while insisting that the days spoken of in Genesis were actual twenty-four hour periods of time; two, the theory that there was no gap in time between verses one and two in chapter one of Genesis but that each of the days was a geological age; three, the theory that there was no time gap between verses one and two in Genesis and also that each of the days were twenty-four hour periods. Thus, according to this theory, God accomplished His work of creation in a very short period of time.

Chapter four contained an examination of the theory of Naturalistic Evolution as presented in chapter two with the Scriptural Doctrine of Creation in chapter three, showing the facts considered in this examination.

The summary and conclusion of the thesis were put in chapter five.

CHAPTER II

NATURALISTIC EVOLUTION

A. Introduction

This chapter has given a definition of evolution, a discussion of its earlier history, and then the actual teaching of this theory as it relates to the origin of the universe and its development. In the latter portion of the chapter the main arguments of evolution that are used to support the theory were presented.

B. Definition of Evolution

Evolution, the drawing of one thing out of another, is deep in nature. It proceeds from causation, which is universal. In the world things are so connected that one thing proceeds from some other. This arises from the universal action of causation. A cause (in physical nature) develops into an effect, and an effect is an evolution from a cause.¹ It is a theory which holds that all things have been brought to their present status by a series of progressive changes according to certain fixed laws, and by means of resident forces.²

All natural causation is produced by two or more bodies acting on each other, the effect being that both are changed. Nature thus becomes reticulated and flexible. The evolution of living beings is an organized causation.

Suppose that nature from the beginning consists of a hundred or a thousand agents. These act upon each other according to their own properties, and new products are ever appearing. Such is the plan in the cosmos. It is man's business not to rebel against the plan, but to fall in with it and profit by it. Looking to the causes operating, man can from the present so far find out the past and forecast the future.³

C. The Nature of Evolution

Strictly and properly speaking, the evolutionary theory is purely biological, and is concerned with the natural history of organic life. It does not profess to deal with the origin or ultimate cause of life, but presupposes the existence on this planet of some form or forms of living organisms. It can be stated very simply as the doctrine that all existing forms of life are derived by unbroken descent from a few primitive types, perhaps from one, the present large number and diversity of species being due to progressive modification of earlier species, brought about by natural forces and laws which still operate. This theory includes in its reference both the animal and vegetable kingdoms and claims in particular to describe the production of the human organism. Some evolutionists hold that the development of species is fully accounted for by the operation of natural forces and laws. But others acknowledge that naturalistic evolution has been attended by involution, that is, by superphysical causation, which has determined the upward direction and the results of the operation of natural forces.⁴

This, in general, is the evolutionary theory. It should not be confused with particular explanations of the method of origin of new species, such as the theories of Lamarck and of Darwin, nor with wider theories which profess to explain the development of the inorganic world and the progress of human history, thought, and religion

by an exclusively natural evolution.⁵

The logic of all branches of science points to the existence of some system of evolution of the universe, its complete nature hidden in the vastnesses of time and space but nevertheless developed in accordance with nature's laws. The earth is one of the celestial host, its beginnings are bound up with that of other bodies.⁶

D. The Early History of Evolutionary Thought

As a speculative conjecture the idea of a development of the world out of primordial matter is as ancient as is human philosophy. Christianity has enriched human thought with the doctrine of the creation of matter by the will of God, and teaches the doctrine of divine imminence and of sovereign control by God of the course of nature. But the evolutionary form of thought was not prejudiced by the publication of these truths. On the contrary, the narrative of creation in Genesis and the progressive nature of God's self-manifestation as recorded in the Scriptures, were commented on by certain patristic writers in terms that were favourable to evolutionary conceptions of history, whether natural or spiritual. Mediaeval realists, starting with the doctrine of an original creation of matter, described its differentiation by individualizing principle into specific forms in terms suggestive of evolution.⁷

E. Establishment of the Theory

The early appearance of such forms of thought and their wide

prevalence were the natural and inevitable result of men's observation of the phenomena of growth in individual organisms, and of the gradation of species in the animal and vegetable kingdoms. But previous to the development of modern biological science, evolutionary theories were necessarily conjectural; and they could not gain a serious foothold so long as no credible explanation of the method of evolution was forthcoming. Moreover, up to Paley's time, modern theologians and scientists alike believed in the fixity of species. With a very few exceptions the notion that species undergo mutation was confined to speculative philosophers. The older allegorical interpretation of Genesis was without support, and theologians naturally read existing science into the Biblical account of creation, assuming that the account should be taken literally, and should be regarded because of its inspiration as scientifically accurate. The conclusion that the purpose of Biblical inspiration did not include a revelation beforehand of the results of scientific investigation, although clearly expressed in the twelfth century by Peter Lombard, did not emerge in modern thought until the unscientific nature of the opening chapters of Genesis had been established by the results of nineteenth century scientific induction. Thus it was that theologians adopted the theory of special creation and of the fixity of existing species, and the idea of mutation of species upon which modern evolution hypothesis depends, was alien in the eighteenth century to the minds both of theologians and scientists.⁸

The task of giving the evolutionary theory an established place in biological science was achieved principally by Charles Darwin, whose Origin of Species is one of the most epoch-making books that has ever

been written. It put much of previous scientific literature out of date, and caused a revolution in thought which has not only extended its transforming influence into every department of natural science and philosophy, but has largely determined the lives and methods of subsequent speculative and apologetical theology.

In 1859 a new world was born, thinking new thoughts and using new language. The results have been that Christian apologists have been compelled either to think the new thoughts and use the new language, or to abandon hope of successfully propagating Christian doctrine among the intelligent, says Francis J. Hall.⁹

Darwin's view had been partly anticipated by Dr. W. C. Wells in 1813. Credit ought also to be given to A. R. Wallace, who had independently sketched the theory of natural selection before Darwin was ready to publish his own speculations. Mr. Wallace sent his sketch to Darwin and Darwin's first impulse was to present Wallace's sketch without publishing his own. However, Darwin's friends dissuaded him and instead a joint statement of Darwin and Wallace was published in 1858 in the Journal of the Linnaean Society. Following this, Wallace acknowledged the priority of Darwin.¹⁰

It remains now to proceed to the theory of naturalistic evolution and the facts formulated concerning the development of the earth, man, plants, and animals.

F. Origin of the World

Science alone has no sure word concerning the beginning of the formative period of the earth, nor does it know the end.

According to the well known theory of Kant and Laplace, started by each independently of the other, there was a mass of matter with an impulse given to cause it to rotate from west to east, and throwing off the earth as a fiery liquid, to move in the same direction. As the earth rotated it formed into an oblate spheroid. As it cooled it developed a solid crust with thick, gaseous substances surrounding it, which in the process of time were condensed into water. As it then presented itself, it was composed of seventy elements, more or less. In it were mechanical, chemical, and gravitational forces, probably also magnetic and electric, whatever these may have been. As they operated divisions and combinations took place, which were called differentiations and concentrations. The atmosphere was separated from the land, and as the oscillations of the cracking earth went on, portions of land rose above the waters. "Mountain chains", says Le Comte, "seem to be produced by the secular cooling, and therefore, contraction of the earth greater in the interior than the exterior, in consequence of which the face of the old earth is become wrinkled." There was yet no sun, which in fact was being condensed out of the nebular mass, but light and heat were generated, ready to nourish the tiny plants which were ready to spring up on the rocks lying under the waters.

For a summary of the earth's changing surface and climate during geological time, the following facts have been selected for emphasis.

First, geological time is very, very long indeed, so vast as to be beyond human comprehension. Few geologists today think that the evolution of the earth and its life could have taken place in less than one thousand million years. In all of this one perceives how slowly

the physical and organic processes bring about the results of nature. Second, the constant shrinking of the earth leads to an instability of surface that brought about periodic changes, not only in the areal space relations of the water and land, but in the shapes and heights of the lands as well. Third, no sooner were the lands elevated above the sea level than the weathering processes became more active and through the agency of the rain and wind all high places were, according to human standards, slowly but surely moved into the seas and oceans. Fourth, as a result of the transference of the high lands into the water areas, the latter were to a certain extent displaced, and periodically flooded more or less of the lands. Fifth, due to these surface changes the atmosphere and the climate were constantly changing in a small way, but every now and then when the lands were largest, highest, and driest, a cold period appeared and disarranged the entire organic world, both on the lands and in the waters. Sixth, when these "critical periods" were upon the world, the face of the earth was scenically grand and beautiful and at the same time the struggle for existence among the living was most intense. The rulers of the various domains found themselves overtrained and overspecialized, and succumbed one after another to the changing environment. Organic supremacy was and is attained only through constant vigilance.¹¹

G. The Appearance of Life

In this long period of time called the Archeozoic or Eozoic Age, there was no life; indeed, there could have been none, owing to the intense heat. It is possible however, that there was a rise of simple

primitive unicellular types in the latter part of this Era. There were also large deposits of limestone, graphite and iron ores of unicellular origin; no fossils remain, if any were even formed. Life appeared first in the Laurentian rocks which stretch through Canada, where they are forty thousand feet in depth, on into the United States; they are also found in Scotland, and bulk largely in Bohemia. These are not primary rocks, for they are formed of matter carried by rivers into the sea. In them are found the Eozoon, of so amorphous a character that it has been disputed whether it is an animal or a mere mineral.¹² First life on this planet was probably forms of great simplicity, endowed like existing fungi, with the power of determining the formation of new protoplasm from such matters as ammonium carbonates, oxalates and tartrates, alkaline and earthly phosphates, and water, without the aid of light.¹³ If there were animals there must also have been plants, vitalizing minerals, to feed them. Evidence shows there probably was life, from graphite and limestone in the formations.¹⁴

H. History of the Earth

1. Its Formation. The History of the earth is read in the rocks which have been thrust up by internal forces and beveled across by erosion. The nearer events are clearly recorded in the sequence and nature of the sedimentary rocks and their fossils. But the oldest formations have been folded, mashed, and crystallized out of all resemblance to their original nature, and intruded by molten masses now solidified into granite and other igneous rocks. Fossils, the time markers of geology if once existent, have been destroyed, and

SUCCESSION OF THE AGES

ERA	ARCHEOZOIC		PROTEROZOIC			PALEOZOIC					MESOZOIC					
PERIOD	Lower Precambrian	Upper Precambrian	Cambrian	Ordovician	Silurian	Devonian	Carboniferous		Permian	Triassic	Jurassic	Cretaceous	TERTIARY			
EPOCH							Lower or Mississippian	Upper or Pennsylvanian					Paleocene	Eocene	Oligocene	
YEARS	STARTED TWO BILLION YEARS AGO		STARTED 500 MILLION YEARS AGO	STARTED 425 MILLION YEARS AGO	STARTED 360 MILLION YEARS AGO	STARTED 325 MILLION YEARS AGO	STARTED 280 MILLION YEARS AGO		STARTED 230 MILLION YEARS AGO	STARTED 205 MILLION YEARS AGO	STARTED 165 MILLION YEARS AGO	STARTED 135 MILLION YEARS AGO	STARTED 75 MILLION YEARS AGO	STARTED 60 MILLION YEARS AGO	STARTED 40 MILLION YEARS AGO	
CHARACTERISTICS OF THE TIMES AND VARIOUS TYPES	Rise of simple, primitive, unicellular types; large deposits of limestone, graphite, and iron ores of unicellular origin; no fossils remain, if any were even formed.	Rise of primitive, multicellular invertebrate animals; very few, imperfect fossils; traces of marine algae, bacteria, shelled protozoa, coelenterates, segmented worms, sponges, and trilobites.	Only invertebrate animals present; segmented worms, mollusks; rise of brachiopods, echinoderms, jellyfishes, sponges, corals; abundant trilobites.	Rise of land plants; rise of fishes (cartilaginous and sharklike); rise of corals (coelenterates), brachiopods, trilobites.	Many parts of the world very arid; rise of air-breathing animals (as insects, scorpions, etc.). Abundant corals (coelenterates), armored fishes, mollusks, brachiopods, decline of trilobites.	Rise of amphibia, crabs, and snails; bony fishes, brachiopods; Mayflies; abundant mollusks; decline of trilobites.	Coal-forming plants common. Amphibia, fishes, mollusks, crinoids (coelenterates).	Coal-forming plants common; earliest reptiles, amphibia, fishes; mollusks, arthropods (crayfishes; beetles, cockroaches, centipedes, spiders), echinoderms.	Periodic glaciation; elevation of continents; several climatic changes; aridity pronounced. Rise of land vertebrates and modern insects; rise of ammonites (Mollusca with coiled, chambered shells).	Rise of dinosaurs, primitive mammals, bony fishes; amphibia and mollusks.	Giant reptiles (dinosaurs, Ichthyosaurs, pterodactyls); rise of birds; clams and snails dominant; bony fishes, butterflies; decline of brachiopods; abundant ammonites (Mollusca with coiled, chambered shells).	Climates quite mild; large deposits of chalk due to foraminifera (Protozoa); very specialized reptiles followed by extinction of giant reptiles; birdlike reptiles; toothed birds, bony fishes, rise of snakes, crocodiles, turtles, extinction of ammonites (Mollusca with coiled, chambered shells).	Rise of primitive mammals.	Vanishing of primitive mammals.	Rise of higher mammals.	

S U C C E S S I O N O F T H E A G E S

PALEOZOIC						MESOZOIC				CENOZOIC						
Cambrian	Ordovician	Silurian	Devonian	Carboniferous		Permian	Triassic	Jurassic	Cretaceous	TERTIARY					QUATERNARY	
				Lower or Mississippian	Upper or Pennsylvanian					Paleocene	Eocene	Oligocene	Miocene	Pliocene	Pleistocene	Recent
STARTED 500 MILLION YEARS AGO	STARTED 425 MILLION YEARS AGO	STARTED 360 MILLION YEARS AGO	STARTED 325 MILLION YEARS AGO	STARTED 280 MILLION YEARS AGO		STARTED 230 MILLION YEARS AGO	STARTED 205 MILLION YEARS AGO	STARTED 165 MILLION YEARS AGO	STARTED 135 MILLION YEARS AGO	STARTED 75 MILLION YEARS AGO	STARTED 60 MILLION YEARS AGO	STARTED 40 MILLION YEARS AGO	STARTED 30 MILLION YEARS AGO	STARTED 10 MILLION YEARS AGO	STARTED ONE MILLION YEARS AGO	PRESENT TIME
Only invertebrate animals present; segmented worms, mollusks; rise of brachiopods, echinoderms, jellyfishes, sponges, corals; abundant trilobites.	Rise of land plants; rise of fishes (cartilaginous and sharklike); rise of corals (coelenterates), brachiopods, trilobites.	Many parts of the world very arid; rise of air-breathing animals (as insects, scorpions, etc.). Abundant corals (coelenterates), armored fishes, mollusks, brachiopods, decline of trilobites.	Rise of amphibia, crabs, and snails; bony fishes brachiopods; Mayflies; abundant mollusks; decline of trilobites.	Coal-forming plants common. Amphibia, fishes, mollusks, crinoids (coelenterates).	Coal-forming plants common; earliest reptiles, amphibia, fishes; mollusks, arthropods (crayfishes; beetles cockroaches, centipedes, spiders), echinoderms.	Periodic glaciation; elevation of continents; several climatic changes; aridity pronounced. Rise of land vertebrates and modern insects; rise of ammonites (Mollusca with coiled, chambered shells).	Rise of dinosaurs, primitive mammals, bony fishes; amphibia and mollusks.	Giant reptiles (dinosaurs, Ichthyosaurs pterodactyls); rise of birds; clams and snails dominant; bony fishes, butterflies; decline of brachiopods; abundant ammonites (Mollusca with coiled, chambered shells).	Climates quite mild; large deposits of chalk due to foraminifera (Protozoa); very specialized reptiles followed by extinction of giant reptiles; birdlike reptiles; toothed birds, bony fishes, rise of snakes, crocodiles, turtles, extinction of ammonites (Mollusca with coiled, chambered shells).	Rise of primitive mammals.	Vanishing of primitive mammals.	Rise of higher mammals.	Maximum numbers of mammals.	Elevation of continents; development of pre-man, rise of modern insects, decline of various mammals.	Periodic glaciation, elevation of continents. Primitive man, modern mollusks, extinction of great mammals.	Civilized man, modern mammals, birds, modern insects.

as in the dawn of human history, vast periods of time are dimly sensed through the disordered and illegible record. This crystallized and intricately distorted series of the oldest terrestrial rocks tells of an earth surface on which air and water played their parts, much as now. But it was a surface repeatedly overwhelmed by outpourings of basaltic lava on a vaster scale than those of later ages, and the crust was recurrently broken up and engulfed in the floods of rising granitic magmas. Here the geologic record begins, but the nature of its beginning points clearly to the existence of a pre-historic eon. At the farther bounds of this unrecorded time, forever hidden from direct observation, lies the origin of the earth. This period of time roughly covers the Archeozoic and Proterozoic eras.¹⁸

2. The Paleozoic Era. The next main period of time within the Paleozoic Era is the Silurian Period, or the Age of Invertebrates, especially of Molluses. This formation lies unconformably on the Laurentian, showing long deposits and numerous upheavals. It is found in the borders of Wales and in the state of New York, and in many other places. There was an abundance of plants, mainly marine, chiefly algae or seaweeds. Animals were also numerous such as sponges, radiates, corals, forming reefs, medusae, and jelly-fishes. There were cephalopods, the most highly organized and most powerful of the tribe. They are represented in the present day by the nautilus, the squid, and the cuttle-fishes. In this age articulated animals appeared, especially soft, fleshy worms, not having preserved themselves, but two hundred species were made known by their tracks and borings, so important in producing soil. In this age there were also evidences of

terrestrial or fresh-water life.¹⁹

The first living inhabitants of the earth must have been far simpler than the lowest bacteria that are known. In fact, it would be correct to say that there were no "first" living things. Inorganic matter slowly developed into organic and this was slowly shaped into living units. This particular evolution must have taken ages. There was no more a "first" living thing than there was a "first" man. Many difficulties are avoided by bearing in mind the extremely slow and gradual nature of these evolutions.

The next great point was the division of early life into plant and animal. There is really no essential difference between the two. They are made of substantially the same plasm and in the lower circles of life today it is often impossible to say whether a living thing is a plant or an animal. But some of the early inhabitants continued to feed on inorganic matter, the chemicals in the soil. This is mainly what is meant by a "plant" or vegetal organism.

Some of the early living things formed the habit of devouring their neighbors instead of building up plasm out of inorganic matter. This was the beginning of the animal. It is quite plain that this means a precisely opposite development from that of the plant. It means "hunting"; so the hunter and the hunted developed very gradually, organs of locomotion, sense spots, mouths, stomachs, weapons, armour, etc.

In time the cells clung together and larger animals ("many celled") were formed. This afforded a better opportunity for specializing. Some cells became muscle-cells, some nerve-cells, some stomach-

cells, some weapon-cells, and so on.²⁰

It is said that before the Silurian Age closed, may be found vertebrates of a low type.²¹

All of these things certainly took millions of years, and probably tens of millions of years! During all that time animals were soft-bodied and have left no "fossils". It is by studying them in nature today that we trace the lines of their evolution. But at last animals with hard parts were developed, and we begin to find these preserved as fossils in the rocks. Some began to form coats of lime (shells) and the great family of Molluses (mussels, cockles, oysters, etc) spread over the floor of the ocean. Natural selection is very useful in explaining protective parts of this kind. Others had their bodies drawn out into sections, with a tough coat on each section (crabs, waterfleas, shrimp). Others had long wriggling bodies (worms). The seas now teemed with life. The less fit perished, age by age. Organization crept higher and higher.²²

During this time the land was rising above the water as the ocean sank into deeper beds. It was probable that these changes were often acute and violent. Great continents, which had for ages spread out very flat and swampy, were tilted. Mountain chains arose and the rivers, which had been sluggish for ages, became far swifter. This meant a great change for the swimming population. Already the hunt for food and escape had developed swifter means of locomotion. Now the water would have washed them away if they had not developed more power and speed. No doubt whole vast populations of floating and swimming things perished, and the speed of others was more rapidly developed.

At the close of these great changes the fish, the king of the early ocean, appeared. How beautifully his long boatlike body, with powerful fins, his eyes and nose and mouth and teeth at the fore-end, responded to the new conditions. They were the outcome of a very long and hard struggle.²³

The next period of time is referred to as the Devonian Period, or the fish age. Hitherto the plants had been chiefly marine. Now land plants became abundant. The remains show that there were even trees as well as smaller plants. There were forests of moderate growth and great jungles over wide-spread marshes. The first fishes which came were ganoids and sharks, some of them three feet thick and from fifteen to eighteen feet long.

"The most fundamental law of evolution," says Le Comte is, "where is differentiation?" This question has to do with a separating of generalized into several specialized forms, a separation of one stem into several branches. The Devonian fishes are an admirable illustration of this law. The first introduced fishes were not typical fishes, but sauroids, that is, fishes which combined with their distinctive fish characters others which allied them with reptiles. They were the representatives and progenitors of both classes. From this common stem diverge two branches, fish on the one hand, and reptiles on the other. This is but one example of a very general law which may be formulated thus: The first introduced of any class or order were not typical representatives of that class or order, but connecting links with other classes or orders, the complete separation of two or more classes or orders being the result of subsequent evolution.²⁴

The next period is the Carboniferous or Great Plant and Coal

Age. This age is divided into the Low or Mississippian and the Upper or Pennsylvanian.²⁵

Here it is found that the great classes and orders of plants scatter and are more firmly organized than in any other age. Between two thousand and three thousand fossil plants have been found, and one fourth of them are of this formation. The lower forms of plant life continued but rising above them were the ramified forms of conifers, lepidodendrons, sigillariae, and calamites. These creatures sinking in a warm, moist, stifling climate, and in stagnant water, became hardened by heat and pressure into coal. This was the great coal-bearing era with its sand stones, shales, and limestones, and with metalliferous veins running through them. Without the plant deposits and the power from the sun stored up in them, human factories and man's working capacity would have been greatly limited. There are coal measures with thickness of ten thousand feet, indicating what a length of time this age must have lasted. The fishes became reptilian in character, and amphibia made their appearance. The Paleozoic Era now passed away and a new era appeared.²⁶

3. The Mesozoic Era. This new era is called the Mesozoic Era or that of the Reptiles. It is divided into the Triassic, Jurassic, and Cretaceous Periods. Here there were changes in the earth itself that had enormous influences in directing these variations at birth into the formation of new species. The land rose, the rivers flowed more rapidly, and the need for speed, which was already great on account of the struggle of hunter and hunted, became greater than ever. The fish family appeared in the waters, beginning with their uncouth forms that no longer existed, passing on to the shark and then branch-

ing rapidly into hundreds of types. The fins were probably at first folds of the skin, which were gradually strengthened by ribs of cartilage. Bones were not yet developed. The lower fishes of today (sharks, rays, etc) have no bones. They are the survivors of one of the earliest families. But now in this age the backbone is the chief new departure. Here the great "back-boned" (vertebrate) family has begun. There was little solid land, a warm ocean rolled over the greater part of the surface of the globe. The atmosphere was foul and thick, unsuitable for land animals; an almost tropical climate existed all over the earth. There was no winter season. Frost and snow were unknown anywhere.

The land began to rise, ridges of hills arose, and on these shores life began to crawl from the overcrowded ocean. Plants probably led the way, since animals would need them for food. The vegetation consisted mainly of plants, such as ferns, cycads, and conifers.²⁷

In this age reptiles reigned in the sea, on the land, and in the air. Some of the reptiles had mammalian characters, especially in the teeth.²⁸

This age of the reptiles is referred to as the "Middle Ages" of the earth's history. It was the age of the giant reptiles, whose hundred-foot-long skeletons are seen in museums. They were developed in the latter part of the coal forest age. They were a plain response to the change of conditions.²⁹

The Cenozoic Era, that of the mammals, naturally followed closely that of the reptiles, and was characterized by animals such as eagles, owls, and woodpeckers. This age closed with the great glacial

epoch, in which a great portion of the earth was covered with ice and snow, believed, for instance, to have been seven thousand feet thick in Norway. The cold accompanying the ice age led to the destruction of many species of plants and animals. In this age placentals, such as monkeys, made their appearance.

4. The Cenozoic Era. The last and present age within the Cenozoic Era is that called the Quarternary, that of the largest mammals. Here the animals have become what they now are. In various countries mammals took on a gigantic size, such as the extinct elks, the mammoth, and mastadon. This mammal age gave away to that of man, intelligent and responsible.³⁰

It is usual to explain very carefully that man has been evolved from a monkey or an ape. Certainly no existing monkeys or apes are in the line of man's ancestry. However, it is important to realize, says Joseph McCabe, that apes and monkeys are related to man only through a common ancestral tribe of three or four million years ago. They are remote cousins.³¹

The difficulty that some people still have in imagining the descent, or rather "ascent" of man from an ape-like form of long ago is caused by the foolish habit of contrasting themselves with a gorilla or an orangutan. There is about themselves a dignity, a wisdom, a virtue that are lamentably absent from the gorilla. But if, instead of taking that finished product of human evolution, and man were to adopt the more sensible course of taking a lower type of human being, the argument grows thinner. After all, it is not man who descended from the ape-like form; it is a remote ancestor. So let man get as near as he can to the common ancestor. The Australian black takes

man back a long way. Many of them look much like the orangutan. Some central Africans go back still further. Take the ugliest and most stupid of these that one can find, imagine something far more ugly and stupid, and then one has the human ancestor. He goes very near the higher ape family.

Even highly civilized and refined folk have in their characters many traces of brute ancestry. Why does the male human being have breasts? He has real, though stunted, milk glands behind those little warts or teats that are visible. Man comes from a very ancient group of animals in which the male helped to suckle the young. Why does man have those shrivelled pieces of cartilage which are called ears? They have no function. They do not help him to hear. Evolution and evolution alone answers the question. Man comes of a remote animal ancestor which had movable, pointed, useful ears like those of the horse. There are about a hundred organs or parts or traces of organs in the human body today that can be explained only in this way.³²

It is generally held that men and apes had a common animal ancestor of the primitive humans and the primitive apes something like two to four million years ago. This common ancestor was of a monkey type, a branch of the very large simian type of the time. Then the ape-like creature descended from the trees and gradually began to walk upright on the ground. This process would also stimulate the brain, increasing its capacity and ability.³³

It is probable that the cradle of the race was in the region on the south-west of Asia. It is significant that one finds the earliest human remains in the island of Java, which was part of the

last continent that connected Asia with Africa and Australia. The law of natural selection now took its course and has produced the man that exists today.³⁴ A further discussion of man has been given on pages 30 to 32, also see pages 34 to 36 and pages 82 to 90.

I. Immutability

The subject around which the question of evolution is centered is the immutability of species. Are species so stable that they always produce offspring like themselves, or can they change so as to give rise either slowly or rapidly to new ones? Most naturalists such as Darwin, Le Comte, Lamarck, and others, claim that the evidence accumulated is sufficient to establish beyond a reasonable doubt the fact that species are mutable. They look upon those living today as descended from past species, from which they differ, and as continually changing so that they will, in turn, give rise to new species in the future. Once it is recognized that species are derived from each other by descent, the method of this derivation and the number of originally created forms are simply matters of detail.³⁵

Natural selection selects, it does not originate or create.³⁶ It is repeatedly proved by facts of everyday observation that species are subject to a certain amount of variation and change. Everyone is aware of the effect of food, climate, hardship and ease upon animals. No child is precisely like its parents. The man of the nineteenth century is very different from the man of two thousand B. C. The European is very unlike the African. Variations do occur, then, and may (by being transmitted from generation to generation) give rise

to races. Among animals and plants it is everywhere recognized that there are species and varieties, and all of the varieties of a species are understood as having descended from the same ancestor. Indeed, the commonly recognized distinction between species and varieties has been, until evolution modified it, that varieties are descended from the same parent, while species are not thus genetically related. Few would attempt to deny that the variations which thus arise are very great, equaling or sometimes even exceeding the amount of difference between species. In many cases the common origin of varieties is frequently a matter of observation. Individual differences are everywhere found, for no two animals are alike. Nor are these variations confined to isolated individuals. They are inherited and transmitted. Changes in the environment produce very great effect upon organisms, changes which gradually increase by inheritance. Changes in food affect the color of animals and changes in temperature, climate, moisture or dryness, and winds all have been found to produce marked effects upon organisms.³⁷

There is evidence enough to prove that not only do variations occur under nature, but that they may, by being transmitted, become sufficiently great to give rise to varieties which all naturalists rank as species.³⁸

J. Comparative Anatomy and Rudimentary Organs

The strongest arguments in favor of evolution come from study in comparative anatomy. The strongest arguments which are found in favor of the theory of descent frequently, too, come from the innu-

merable little points which familiarity with animals brings under one's observation; too many to introduce into any discussion for the sake of argument and too minute, most of them, to seem worth publication, but all together forming a complete whole, whose weight is very great.³⁹

An important feature in connection with the classification of animals and plants, is the series of organs known as rudimentary organs. They have always been an object of interest, for utterly functionless, their presence seems entirely unaccounted for unless they are assumed to be rudiments of organs previously of value.

The theory of types meets the question in a manner which at first sight seems to be intelligible. Animals are built according to certain plans and it is necessary, in order that the plan be complete, to have all its parts represented.⁴⁰

The vermiform appendix of the human body affords a critical instance, one that obtrudes itself upon man's attention with painful insistence in the disease known as appendicitis. This and other organs of the same apparently useless nature bear the appearance of being survivals of a previous stage of evolution, for they are found in lower species and there discharge useful functions. Mr. A. R. Wallace gives interesting examples. He says, "All the higher animals present rudiments of organs which, though useless to them, are useful in some allied group, and are believed to have descended from a common ancestor in which they are useful." Some of these rudiments appear only in exceptional individuals. Thus certain persons carry a projecting point on the outer fold of the ear, corresponding faintly to the pointed ear of numerous species of lower animals, an earmark of an-

cestry.⁴¹

K. Paleontology and Paleobotany

The next important argument in favor of evolution is the study of Paleontology.

The fossils of the stratified rocks are believed to give a history more or less complete of the life of the world during past ages. There have been many additions to the collections and knowledge of fossils and a great amount of positive evidence has been accumulated. The evidence collected has, it is true, added very much positive evidence in support of the general theory, and in many cases science now has practical proof of the gradual origin of species from each other.⁴²

Much of this proof has been developed from a group of fossils found from the Silurian age, and are well adapted for preservation as fossils. Their bones are found in abundance in the later formations. They are better known and more studied than any other group and it is not surprising, therefore, that most of our advance in Paleontology (ancient or fossil life) has been in regard to the vertebrates.

Another very interesting result of Paleobotany has been the growth of the brain in mammals. Marsh gives this his own summary.

- (1) All Tertiary mammals had small brains.
- (2) There was a gradual increase in the size of the brain during this period.
- (3) The increase was mainly confined to the cerebral hemispheres or higher portions of the brain.
- (4) In some groups the convolutions of the brain have gradually become complicated.
- (5) In some the cerebellum and

olfactory lobes have diminished in size. These are very significant results when compared to the enormous size of many of the older animals and the comparative small size of the modern ones. It appears that till the time of the appearance of mammals the struggle for existence had been confined to physical superiority, but with the beginning of the Tertiary period a new era ensued, resulting in the growth of the brain, and from that time the contest has been one of intelligence.⁴³

The fossil history of plants has not been so much studied as that of animals, and much less is known about it. Plants are not so easily preserved as animals with hard parts. In general, Paleobotany (study of plants) offers somewhat the same sort of testimony as that concerning the animals.⁴⁴

L. Embryology

Embryology also takes an important place in evolution.

The fundamental principle which underlies all modern research in this direction is simply the assumption that the development of the individual repeats briefly the development of the race: that if science could trace perfectly the development of any animal from the egg, then science could get an epitomized history of the development of the race to which the animal in question belongs, through the countless ages of the past. This gives the student with his microscope and section instrument the opportunity of studying in the laboratory the past history of animals, of discovering thus the exact blood relationship of animals to each other, and thus explaining most of the anom-

alies of classification. In short, if embryology is a summary of past history, it is a key to the problem of the origin of the animal kingdom as it exists today.⁴⁵

M. Blood Tests

Precipitin blood tests show a definitely graded relationship between living creatures and the procession of types of animal life as is demanded by evolution.

Human blood is allowed to clot and the watery portion is drawn off and injected into a rabbit. An anti-toxin is formed that neutralizes the toxic effects of the human blood. This "anti-human serum" may be used as an indicator of blood relationship, when mixed with the blood of old world monkeys, but is negligible with Lemurs. When stronger solutions and longer time periods are used on various animals the reactions establish the same degree of relationship as is indicated by the theory of evolution in its ascending classifications. The blood tests have brought very strong confirmation to the theory of evolution and from an entirely unexpected quarter. This comes as near to giving definite demonstration of the theory as science is likely to find.⁴⁶

A remarkable similarity is found in the manner of development in different species of the same general group. The similarity is most complete in the earliest stages, so complete indeed that prior to a certain stage of development, the embryos of the different species were indistinguishable from each other. It is also noticed that the higher organisms to an observable extent recapitulate in their embryonic growth the phases of development of their several species which the evolutionary theory

hypothecates. These phenomena are most readily interpreted and accounted for from the evolutionary standpoint. The parallelism between the growth of individual organisms and the development of species is not indeed complete, but this is easily accounted for by the supposition that the variations which result in the divergence of species may to some extent modify the embryonic stage of growth. The more or less defective but recognizable resume of earlier natural history which is still discoverable seems to declare an ancient pedigree, and a common ancestry for the species which are thus shown to be mutually related.⁴⁷

N. Geographical Distribution of Animals

The geographical distribution of animals in the world today is another source of collateral evidence as to the evolution of species. It is of particular interest, since it was the study of this subject which first led Darwin to the theories which have made his name immortal. Today it is still the subject of geographical distribution which offers some of the most convincing proofs of the modification of species, while at the same time, it presents some problems for solution.

It is supposed that animals are exactly adapted to the localities they inhabit, but this is not found to be true. Of course there is some general relation of animals to climate. However there are many cases where localities with almost identical physical conditions have utterly different animals and plants.⁴⁸

Climate is a factor in regulating distribution, but since like habitats may possess unlike fauna and unlike habitats possess like fauna, it is evident that the influence of climate is only secondary.⁴⁹

It is natural that, according to the descent theory allied species should inhabit neighboring localities, but that barriers limiting the migration of a species must be the limits of the extension of the species. The theory would also require a close relationship between the present and past inhabitants of any country.⁵⁰

The tendency of the evidence seems to show that mammals originated in Europe or north of Europe and then migrated east, west, and south, finally filling the whole world except ocean islands.⁵¹

All the facts of distribution point toward one fact, that the species of animals always develop by migrating continuously from their centers. Just as the evidence from the rocks shows that all organisms have developed continuously in time from one age to another, so the evidence from distribution shows that they have spread by steady advance from a center where they originated.⁵²

O. Development of Man

The discussion of man's relation to the rest of the organic world has been reserved for special consideration at this time since, in many respects, it stands by itself.

It is well at the outset to acknowledge that as far as man's body is concerned, there is no valid reason for exempting him from an origin such as has been ascribed to the rest of the organic world. Man is just as truly a member of the vertebrate sub-kingdom as is the monkey, bone for bone, muscle for muscle, nerve for nerve. It appears that man does not have a sub-kingdom to himself; he does not belong to a distinct order or even family. He forms simply a genus

of primates closely related anatomically to the chimpanzee and gorilla. The difference between man and the apes is less than between the ape and the ordinary monkey. Man has certainly a very large brain, but it is contrary to every principle of nature to found such distinction on a single character. There are rudiment organs in man which are well developed in other vertebrates. If evolution applies elsewhere, it applies here also.⁵³

The oldest human remains which have been found are certainly much more like those of the apes than the man of today, particularly in the shape of the skull. One point, however, that geology has definitely settled is that man is a very old animal. Instead of existing only a few thousand years, there is positive evidence that he has lived many, many thousands of years. The intelligence of man has been developed through this time. Because of the advance in organization higher methods of defense made their appearance. There has been since the Tertiary age a gradual increase in the size of the brain, affecting all mammals.⁵⁴

Man needed no natural weapons, for he manufactured artificial ones of more efficiency. Man's body therefore remained little changed except in such particulars as relates to his advance in intelligence. The continued use of the hand caused it to become more delicate; the growth of his brain caused his skull to increase in size. But, except in a few such features, his body has remained much as it was. Meantime, all of the intervening half-intelligent animals had become exterminated, for this animal had its severest contests with others like itself. The advance in intelligence from lower animals to man has not been a continued one. Up to a very late geological age, when

higher primates appeared, intelligence was a very secondary feature in development. After this, intelligence was a primary factor.⁵⁵

From this point man made tools and built fires, all brought about by his intelligence. Man also learned to communicate by using language. This also affected his intelligence until man has developed to what he is today.⁵⁶

P. Summary

The main stem of thought concerning the theory of the development of the world through the process of evolution was noted in this chapter.

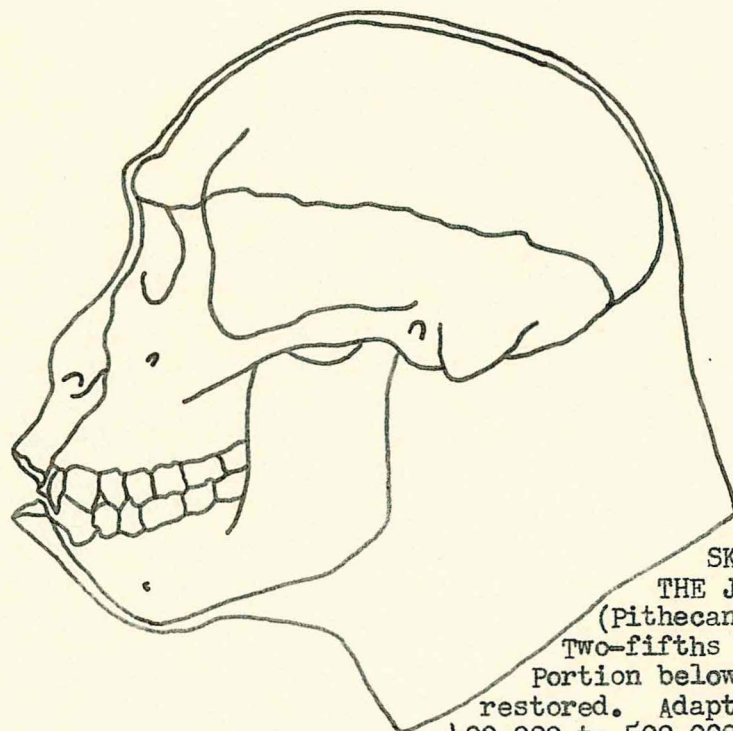
The definition and nature of the term "evolution" was considered. The early thought and establishment of evolution during the nineteenth and twentieth centuries was also traced.

Evolutionists have now shown how the world developed from a molten mass of liquid and flame, burning its way through space; how it cooled and the water gathered over the thin, hardening crust covering the earth until it evolved into its present condition.

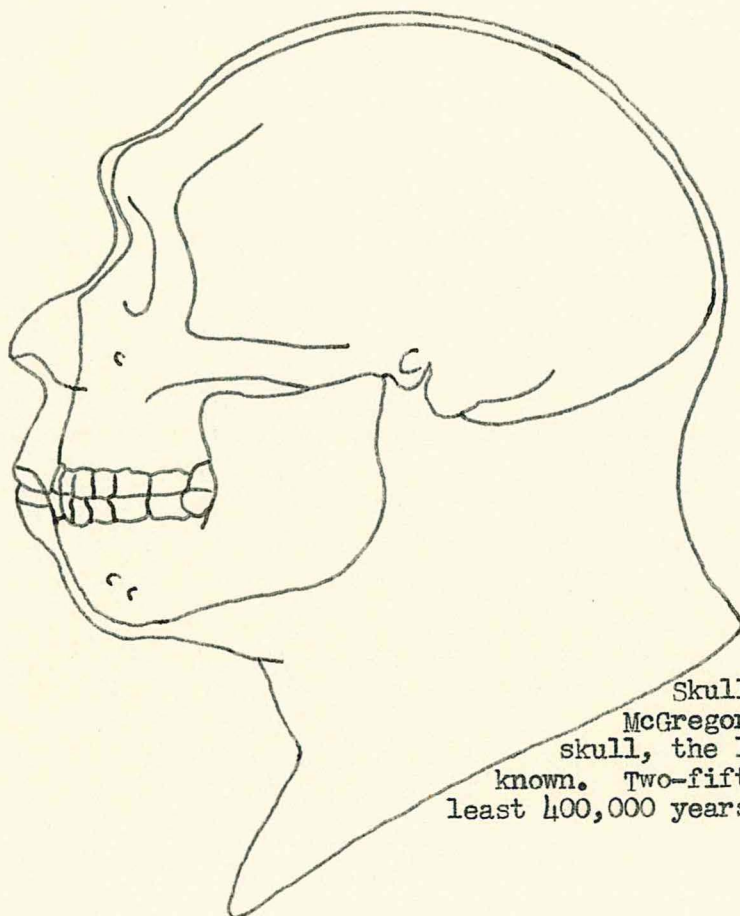
The earth, after ages of cooling and upheavals, finally established itself and through intricate and accidental means produced life in its most primitive and simple state, slowly developing over hundreds of millions of years from the Paleozoic Era till the present Quarternary Period.

In this chapter problems have been discussed necessary to the understanding, proof, and study of evolution, problems such as the Immutability of Species, Comparative Anatomy and Rudimentary Organs,

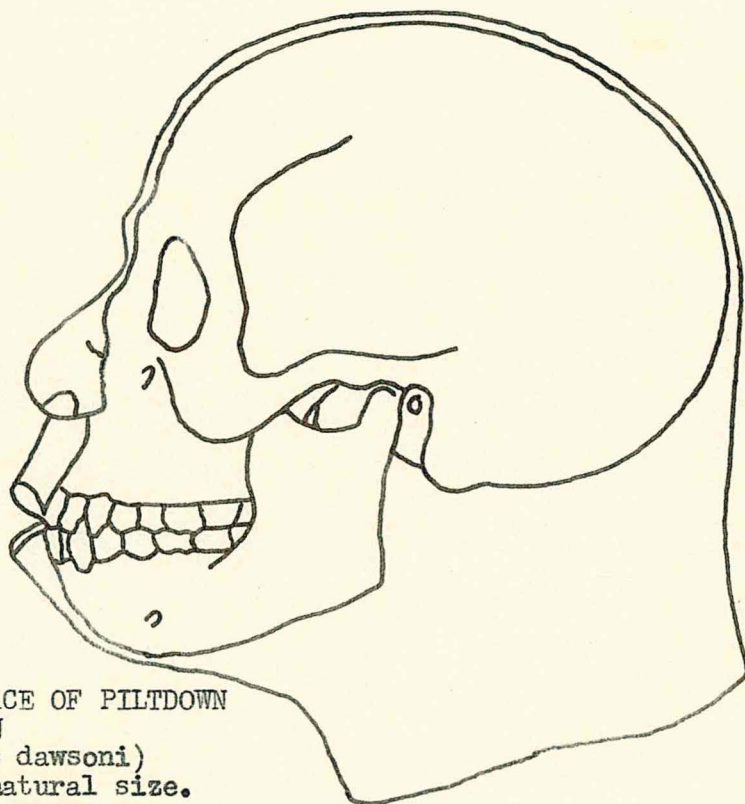
Paleontology and Paleobotany, Embryology, Blood tests, the Geographical Distribution of Animals, and the Development of Man.



SKULL AND FACE OF
THE JAVA MAN
(*Pithecanthropus erectus*)
Two-fifths natural size.
Portion below irregular line
restored. Adapted from McGregor.
400,000 to 500,000 years old.⁵⁷



HOMO HEIDELBERGENSIS
Skull and face, based upon
McGregor's restoration of the
skull, the lower jaw only being
known. Two-fifths natural size. At
least 400,000 years old.⁵⁸



SKULL AND FACE OF PILTOWN
MAN

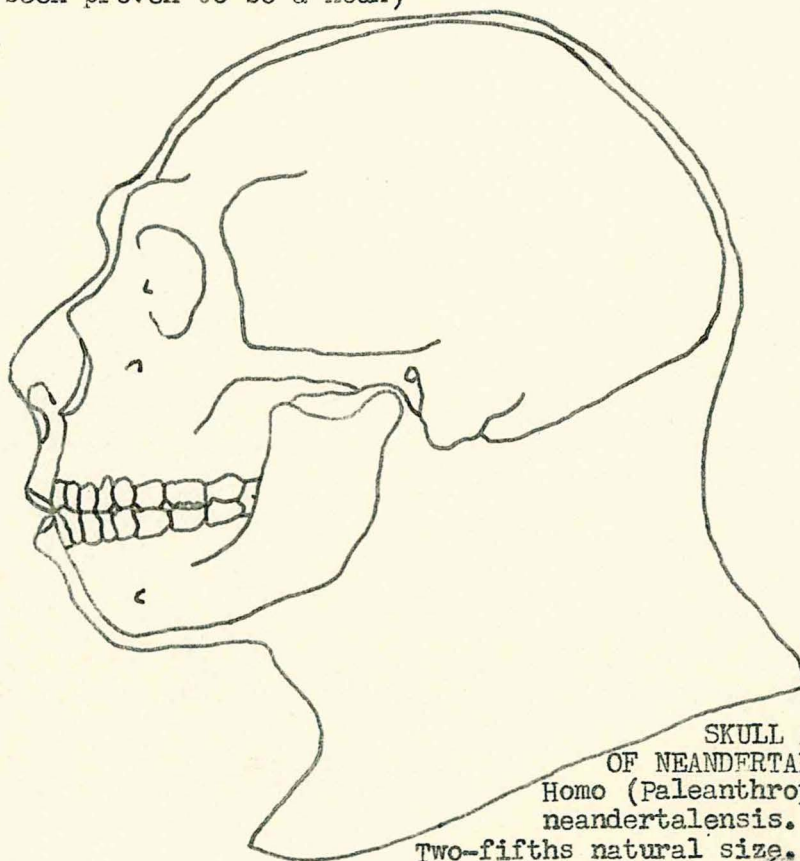
(*Eoanthropus dawsoni*)

Two-fifths natural size.

Adapted from McGregor.

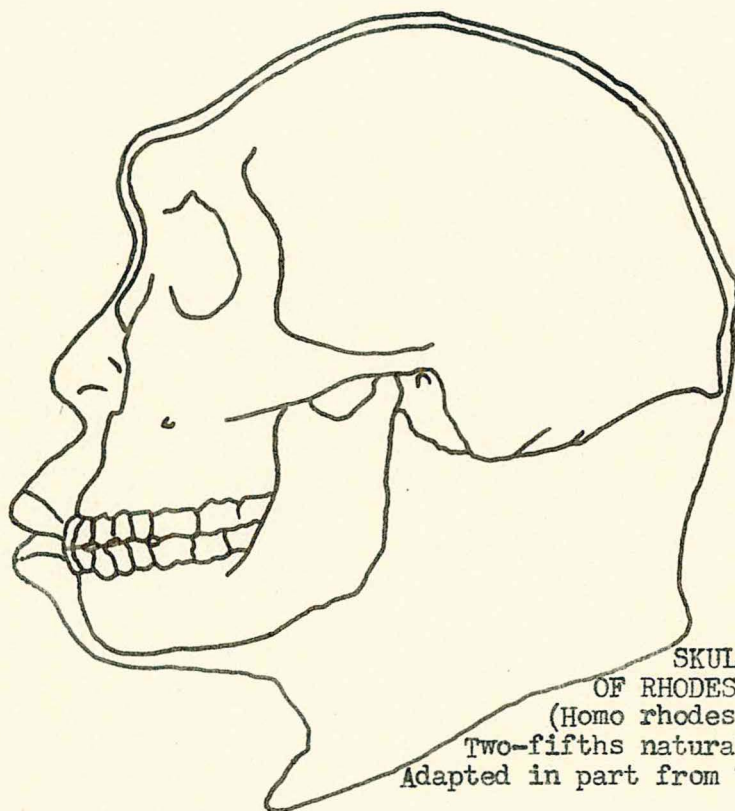
300,000 to 400,000 years old.⁵⁹

(this has been proven to be a hoax)

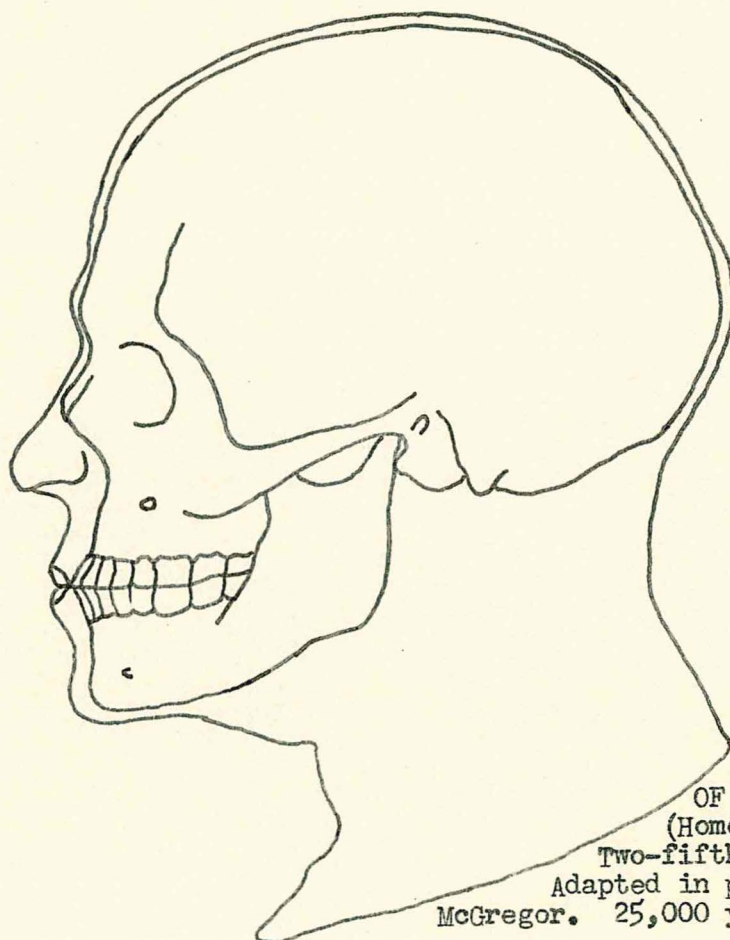


SKULL AND FACE
OF NEANDERTAL MAN
Homo (*Paleanthropus*)
neanderthalensis.

Two-fifths natural size. Adapted
from McGregor and Boule.⁶⁰



SKULL AND FACE
OF RHODESIAN MAN
(*Homo rhodesiensis*)
Two-fifths natural size.
Adapted in part from Woodward.⁶¹



SKULL AND FACE
OF CRO-MAGNON MAN
(*Homo sapiens*)
Two-fifths natural size.
Adapted in part from
McGregor. 25,000 years old.⁶²

CHAPTER III

THE SCRIPTURAL DOCTRINE OF CREATION

A. Introduction

Chapter II has presented a purely mechanistic and materialistic "world view". This view in its primary state takes no account of God. God is completely ignored except for some who believe God is the one who started the process called "Evolution".

This chapter has dealt with the words of Genesis as they related to the "creation", presenting several theories as to the period of time, and the length of this period of time of creation.

A portion of the chapter is devoted to evidence in the rocks, when they are not classified according to the "fossil index" system. Here there are found many startling facts that encourage and fortify the Christian thought concerning the "creation".

B. In the Beginning

It is of interest here, to consider the theories which have been set forth by astronomers and physicists in recent times regarding the possible date of the beginning of the universe and the earth. Edwin P. Hubble, astronomer of Mt. Wilson Observatory, Pasadena, California, estimated the age of the sun at seventy billion years. Sir James Jeans, the British physicist, gives thirty billion years for

the age of the earth. Albert Einstein estimates it at ten billion years. Professor Ernst J. Opik of the Tartu University Observatory in Estonia suggested that the universe was created all at once three billion years ago.

An examination of these suggestions shows a wide variation in the dates advanced for the beginning of the universe and the earth ranging from three to ten to thirty to seventy billion years ago. If one should ask an individual, "What is your age?" and receive the answer, "It may be three, or ten, or thirty, or seventy years," one would conclude the person did not know the exact or sure answer. Likewise, one concludes that when no definite date can be assigned for the beginning of the universe, it is still well to think of the time of creation as a "dateless date". It may be that God did not state the time in numbers of years because of the possibility that it could be misunderstood in some periods of the world's history, and would be best described for all time, as it has been by Divine Inspiration, in the words, "In the beginning..." Genesis 1:1.⁶³

The creation story in the scripture begins, "In the beginning God created the heavens and the earth," Genesis 1:1. Beginning of what? It was the beginning of time. Time is marked by the heavenly bodies and before the beginning there were no heavenly bodies, says Dr. S. J. Bole in Battlefield of Faith; therefore, there was no such thing as time. With the beginning of a "new heaven and a new earth" on the other side of the Millennial Kingdom, time once again shall be no more.

What was there before "the beginning"? There were four things in eternity before the beginning: the Father, the Son, the Holy Spirit,

and the eternal plan of the infinite and triune God. "The beginning did not make God, but God made the beginning, proving that He existed from eternity."⁶⁴

God created the heavens and the earth. Heaven here refers to the physical universe; the fixed stars, the planets, satellites, and other heavenly bodies. The earth refers to the world, water, land, atmosphere, sunshine, plants, and animals.

How long was God in creation? In a human problem we divide the amount of work by the rate of work to find the time. But an infinite God has infinite power and an infinite rate of work. The heavens and earth are finite; they have limits and bounds. But when any finite number is divided by infinity, the result is zero. This would mean that the primal creation was instantaneous.

The Hebrew word for create is bara, which means to bring into being something which had not yet existed. This is that greatest miracle of creation.⁶⁵

The date of the creation of the universe is an entirely different question from the date of the creation of man. The universe may have been created shortly before the creation of man (about four thousand to eight thousand B. C.), or long before, depending on whether or not a long period of time is involved in the first two verses of Genesis and whether or not the days of creation were twenty-four hours or long periods of time.

C. Theories of the Beginning

Dr. Joseph P. Free states that there are three main views con-

cerning the creation of the world. The first theory is that the original creation of the universe and the earth is described in Genesis 1:1, "In the beginning God created the heavens and the earth." Then a period of time followed during which "the earth was without form and void." (Hebrew, "the earth was desolate and waste,") Genesis 1:2a. This period of time may have been of any length, from a few thousand to a few million years, and could include the geological ages observed in the earth's surface. According to this theory the fall of the angels may have occurred, "For if God spared not the angels that sinned, but cast them down to hell, and delivered them into chains of darkness, to be reserved unto judgment;" II Peter 2:4, "And the angels which kept not their first estate, but left their own habitation, he hath reserved in everlasting chains under darkness unto the judgment of the great day." Jude 6. The fall of Satan may also have occurred then. These are scriptures that are used by those that hold to this theory to support their claim.

How are thou fallen from heaven, O Lucifer,
son of the morning! how art thou cut down to
the ground, which didst weaken the nations!
For thou hast said in thine heart, I will
ascend into heaven, I will exalt my throne
above the stars of God: I will sit also upon
the mount of the congregation, in the sides
of the north: I will ascend above the heights
of the clouds; I will be like the most High.
Isaiah 14:12-14.

Thou hast been in Eden the garden of God;
every precious stone was thy covering, the
sardius, topaz, and the diamond, the beryl,
the onyx, and the jasper, the sapphire, the
emerald, and the carbuncle, and gold: the
workmanship of thy tabrets and of thy pipes
was prepared in thee in the day that thou
was created. Thou art the anointed cherub
that covereth; and I have set thee so: thou
was upon the holy mountain of God; thou hast

walked up and down in the midst of the stones of fire. Thou was perfect in thy ways from the day that thou wast created, till iniquity was found in thee...thou hast sinned: therefore I will cast thee as profane out of the mountain of god... Ezekiel 28:13-16.

And again God said:

Thou hast said in thine heart, I will ascend into heaven, I will exalt my throne above the stars of God...I will ascend above the heights of the clouds: I will be like the most High. Yet thou shalt be brought down to hell, to the sides of the pit. Isaiah 14:13-15.

It is possible that Satan and the angels were created by God and used by Him to care for the earth before their fall. From these passages it seems that Satan wanted to be God. According to this theory Satan and the angels that fell revolted, and God had to cast them out. From what were they cast out? Not from the earth because they are still here, but from Eden, the Garden of God, from the rulership of the earth and the fellowship of God. Those holding to this theory say that it should be kept in mind that the Garden of God is not the same as the garden eastward in Eden, "And the Lord God planted a garden eastward in Eden; and there he put the man whom he had formed." Genesis 2:8, where Adam was placed. Their geographical location may or may not have been the same, but they are separated by an unknown period of time. The judgment of Satan and the Angels that revolted with him, it is said, must have affected the earth greatly for the earth was waste and void and darkness was upon the face of the deep.

After this cataclysmic period, the putting of the world in order is described in Genesis 1:2b-10. After this began the reconstruction of the chaotic world. "And the Spirit of God moved upon the face of the waters, and God said, Let there be light: and there was light."

The succeeding creative acts may have taken place in six days of twenty-four hours each and included the creation of plants, animals, and man. It is possible that the period of reconstruction was not the beginning of light, Dr. Bole states, for the fossil plants and animals in the rocky layers of the earth bear witness of countless years of sunshine prior to this time. It seems during this time of chaotic condition that both the water and the atmosphere were thrown into confusion, which resulted in darkness.

This chaotic condition probably did not last long nor did the angry waves wash all over the land very long.

In the original creation God did not command for there was no opposition. He spoke, and the materials for a universe came into being. But Satan and the fallen angels had power and influence in the primal earth (and still have), so God had to make commands in the restoration. Each of His thirteen commands begins with the word "let", and they are as follows:

Let there be light. (verse 3)
 Let there be a firmament in the midst of the waters. (verse 6)
 Let it divide the waters from the waters. (verse 6)
 Let the waters be gathered unto one place. (verse 9)
 Let the dry land appear. (verse 9)
 Let the earth bring forth grass, herbs and fruit trees. (verse 11)
 Let there be lights to divide the day from the night. (verse 14)
 Let them be for signs, seasons, days and years. (verse 14)
 Let them give light upon the earth. (verse 15)
 Let the waters bring forth moving creatures and fowl. (verse 20)
 Let the earth bring forth cattle, creeping things and beasts. (verse 24)
 Let us make man after our image. (verse 26)
 Let them have dominion over the fish, fowl, cattle, and every creeping thing. (verse 26)⁶⁶

The period of time between the first two verses of Genesis is called the interval.

Fossil remains seem to indicate preadamite ages of sin, for they may be proved to be the relics, not of the "Six Days", but of far earlier creations. The fossils show that not only were disease and death inseparable companions of sin, which was then prevalent among the living creatures of the earth, but even ferocity and slaughter. And the fact proves that these remains have nothing to do with our world, since the Bible declares that all things made by God during the "Six Days" were very good, and that no evil was in them until Adam sinned. It was through the fall that the ground was cursed.⁶⁷

According to the second theory, the days of Genesis were long periods of time, perhaps corresponding to the various geological ages. This is referred to as the "day-age" theory. It is said that this view was held by Josephus, the Jewish historian of the first century A. D., by many rabbis, and by some early Christian fathers, including Irenaeus (second century), Origen (third century), and Augustine (fourth century). Bible believers who hold this view today are not necessarily theistic evolutionists, inasmuch as the latter usually hold that God used evolution as a means of finally producing man, and they often attempt to fit the evolutionary process into the creative days of Genesis. On the contrary, most Bible believers who hold the view that the days of Genesis are long periods of time reject the theory of evolution.

According to the third view, the creation of the earth was followed immediately or at least very soon by the creation of plants, animals, and man during creative days of twenty-four hours. This view

places the creation of the universe and the earth, as well as man and animal life, all within the period since four thousand B. C., or a little before. Other factors which are presented in support of this theory that point to the possibility of a period of time between the creation of the earth and the creation of man are: 1. In warning Israel of God's judgment on backsliding, the prophet Jeremiah presented his vision of the earth as being "without form and void", Jeremiah 4:23, using the same Hebrew words as those applied to the earth in Genesis 1:2. Jeremiah was apparently led to think back to the desolation of the earth before the creation of man and compare it with the cataclysmic state which would result if God's judgment should fall on unrepentant Israel. This use of the very same words could point to a cataclysmic period in Genesis 1:2, which perhaps succeeded the sinning of the angels and Satan, verse 2. The geologic ages seem to give evidence of a period longer than a few thousand years. In some areas several petrified forests have been found superimposed on one another. God could have created them this way, but it is possible that He permitted them to be formed over a long period of time. See page 45.⁶⁸

The date of the creation of man probably falls in the period between four thousand and eight thousand B. C., or possibly earlier, and the creation of the world and the universe may have taken place any time before that, possibly immediately before, but more likely some time before, if there is a long period of time involved in Genesis 1:1, 2. The Bible does not indicate the date of the creation of the universe; it has been referred to as "the dateless date".⁷⁰

Destructive critics have much to say about the two accounts of creation given in the early chapters of Genesis. The great English

SUGGESTED HARMONY OF GENESIS AND GEOLOGY

EVENTS NOTED IN SCRIPTURE	GEOLOGICAL DEVELOPMENT	GEOLOGICAL TIMETABLE	NOTES ON CHART AT LEFT
The heavens and earth light,	Matter, the universe, Earth and other planets.	Cosmic Era	FIRMAMENT-Hebrew "raqia." Means stretched out, an expanse. Could not be solid, for in Gen. 1:20 birds are flying through it. Signifies open atmosphere between the heavy unbroken cloud layers above and waters beneath.
Succession of day and night (Gen. 1:1-5)	Mists surrounding earth oceans in atmosphere.	Azoic	MOVING CREATURES-Hebrew "nephesh chayyah." Same in Hebrew with "living creature" in vs. 21, 24, and with "living soul" in chapter 2:7. Idea of movement is derived from the Hebrew "sherets" which has the significance of swarms, or (swarms of). This is in harmony with the nature of life in the Cambrian and other earlier Paleozoic periods.
Firmament (expanse) * (Gen. 1:6-8)	Waters begin to collect, clouds and oceans.		FOWL-Hebrew "oph." Has the significance of "that which covereth with wings," a flying creature. Could signify any other flyer such as reptiles or mammals.
The earth out of the sea.	Continental shields and start of gradation.	Archaeozoic Era	WHALES-Literally sea monsters. Hebrew "hattanninim." Descriptive of the great reptilian and elasmobranch forms in the sea.
Beginning of plant life, (Gen. 1:9-13)	Algae and other plant forms.	Proterozoic Era	LIVING CREATURES-See "Moving creatures" above. Signifies breathing creatures, or that which has breath of life.
Luminaries made to appear. (Gen. 1:14-19)	Condensation breaks clouds. Sources of light seen from surface.		CATTLE-Hebrew "behemah." Any large quadrupedal animal of the mammalian type. Sometimes in the plural, specifically the hippopotamus.
Sea brings forth: Moving creatures * Flying creatures * Sea monsters * Animal life of all kinds (Gen. 1:20-23)	Invertebrate life of all kinds. Fish and various types. Amphibia and insects.	Paleozoic Era. Cambrian, Devonian, Carboniferous.	CREEPERS-From the Hebrew "ramas" which signifies "to creep, crawl, or glide swiftly." Can be used of a reptile, or other animals that crawl, or move rapidly with very short steps.
Cattle* Creepers * Beasts of the earth *	Mammals of the land, sea, air True birds.	Cenozoic Era	BEASTS OF THE EARTH-In the mind of Hebrews, mammalian organisms of the nondomestic type.
Man * (Gen. 1: 24-31).			
The Sabbath rest (Gen. 2: 1-3).	No notable new forms.	Psychozoic Era	

* For explanatory note see NOTES at right of chart. NOTE -Compare with geological chart on page

Bible scholar, James Orr, explains this as follows:

The two narratives are in no way parallel. The first gives an orderly account of the creation of heaven and earth; the second is not in strictness, an account of the creation at all, but has for its object to show how man was dealt with by God at his creation, how the helpmeet was provided for him, and the whole material is grouped from this point of view.⁷¹

The second narrative also describes the nature and location of man's surroundings (Eden), records the test of obedience (not to eat of the tree of knowledge of good and evil), and relates the details of the creation of Eve, Genesis 1:21,22. The two sections are not contradictory nor divergent, but the second supplements the first, and together they form an overall view of the broad sweep of creation, along with the essential details.

In any modern book which gives a running narrative, one may find that a particular chapter will refer to a certain character in a passing remark, while a succeeding chapter will take up that character and give further details concerning him. The two chapters are written by the same author, and are not contradictory but supplementary. In just such a way, Genesis chapter two elaborates and supplements Genesis chapter one. If one wishes to see the unity of the first chapters of Genesis, let him read Genesis one and then skip to Genesis three; he will notice that the preparation for Genesis three is lacking. Or let the reader begin with chapter two. He will find that many essentials are missing, which are given only in Genesis one. Genesis one is obviously an integral and essential part of the whole record of creation. Oswald T. Allis, formerly professor at Princeton Theological Seminary until 1929, has made a recent study

showing the Mosaic authorship, the unity, and the validity of Genesis and the other books of the Pentateuch in his volume, The Five Books of Moses (AFBM).⁷²

It seems that a reasonable literal interpretation of the Bible does not give as much justification to an acceptance of the "day-age" theory of creation as to the twenty-four hour day theory, though one recognizes that the day-age theory can be and often is held by a Bible believer who is true to the fundamentals of the faith. It is a principle of literal interpretation to take a word in its usual sense unless there is definite evidence to show that it is used figuratively. Until rather conclusive evidence to the contrary is forthcoming, we prefer to take the days of Genesis as literal twenty-four hour days because: 1. This is the natural and usual use of the word. 2. The delimiting of the day by "morning and evening", Genesis 1:5, 8, 13, etc. would point to a literal day. (Holders of the day-age theory point out that "morning and evening" may be figurative also, indicating the beginning and the end of an era, but this usage would seem a little strained in the light of the context.) 3. The reference to the sabbath day in the Ten Commandments refers to the six creative days and the seventh day of God's rest in such a way as to imply literal twenty-four hour days, Exodus 20:11.⁷³

If the interval theory is accepted with the twenty-four hour days, then following the interval there must be a return to the ruined earth, the condition of which only conjecture can be made from what is told of the six days of restoration. The destruction of the pre-adamite world seems to have been caused by tremendous convulsions, and also by a glacial period consequent on the extinction of the sun.

The earth was inundated with the ocean waters; its sun had been extinguished; the stars were no longer seen above it; its clouds and atmosphere, having no attractive force to keep them in suspension, had descended in moisture to be found in the whole planet. "And every plant of the field before it was in the earth, and every herb of the field before it grew; for the Lord God had not caused it to rain upon the earth, and there was not a man to till the ground." Genesis 2:5.

Now the withdrawal of the sun's influence had probably occasioned that glacial period, the vestiges of which, as geologists tell us, are plainly distinguishable at the close of the Tertiary Age. And the same cause will also account for the mingling of the waters that were above the firmament with those that were below it. Both effects are well illustrated by the following extract from one of Herschel's "Familiar Lectures on Scientific Subjects".

In three days from the extinction of the sun there would, in all probability, not be a vestige of animal or vegetable life on the globe; unless it were among deep-sea fishes and the subterranean inhabitants of the great limestone caves. The first forty-eight hours would suffice to precipitate every atom of moisture from the air in deluges of rain and piles of snow, and from that moment would set in a universal frost such as Siberia or the highest peak of the Himalayas never felt, a temperature of between two and three hundred degrees below the zero of our thermometers... No animal or vegetable could resist such a frost for an hour, any more than it could live for an hour in boiling water.⁷⁴

From this description may be seen some of the ruin which befell the preadamite world. Of its main features there is a graphic portrayal in a grand passage of Job, in which the folly of contending with God

is enforced by supposed reference to Satan's rebellion and its consequences.

The wise in heart and mighty in strength, who hath defied Him, and remained unhurt? Who displaceth mountains, and they know not that He has overturned them in His wrath; who maketh the earth to tremble out of her place, so that her pillars rock to and fro; who commandeth the sun, and it riseth not, and sealeth up the stars. Job 9:4-7.

The terrific convulsions by which the earth was shattered and destroyed are almost placed before our eyes in this sublime description; while the suddenness of the catastrophe is vividly presented by the poetic conception that the mountains were overturned before they were aware of it. The extinction of the sun is plainly indicated, and also the veiling of the stars, so that the thick darkness was relieved not even by their scanty lights. Job 9:4-7. In the following verses (8-10) the patriarch alludes to the reconstruction of the Six Days.

Who alone spreadeth out the heavens, and treadeth upon the heights of the sea; who maketh the bear, Orion, and the Pleiades, and the chambers of the south; who doeth great things past finding out, and marvellous things without number. Job 9:8-10

Here, since the spreading out of the heavens evidently refers to the work of the Second Day, it may be, claims G. H. Pember, that "the heights of the sea" are the waters above the firmament. The mention of the constellations points to the reversal of God's previous action in sealing up the stars.⁷⁵

How long the glacial period continued it is impossible even to conjecture; but in the scene which the second verses of Genesis presents, it is possible, according to this theory, that the ice was

broken up, perhaps through some development of the earth's internal heat, which in its convulsive struggles may also have displaced the bed of the ocean. Thus the whole globe was covered with water, on the surface of which the Spirit of God was already brooding.⁷⁶

This conjecture may derive a little support from the following consideration.

The heat increases as we descend into the earth, and hence many scientific men have held that the interior of our globe is a reservoir of liquid fire. With this opinion the Scriptures are in accord; for in Revelation 9:2, when the well or shaft of the Abyss is opened, a smoke like the smoke of a furnace pours forth so copiously that the sun and air are darkened by it. Such a description inclines us also to prefer the translation of II Peter 3:7, which makes the Apostle speak of the earth as "stored with fire". And perhaps the context of the expression suggests that, just as God broke up the foundations of the great deep to cause the Deluge, so will He command His stored fires to burst through the crust of the earth for its future destruction. A heat will then be developed so intense as to fuse the very elements, or materials of which the crust is composed. Nor will this be a new thing; the condition of the non-fossiliferous strata seems to point to the occurrence of a similar catastrophe in former ages.

May not then, argues G. H. Pember, man conceive some development of these internal fires, comparatively slight but sufficient to melt the ice with which the earth was covered? In some localities of volcanic Italy the soil is found to be quite warm, and the newspapers have given accounts of a tract of land in Germany which had

become so heated by subterranean fire that tropical plants were growing upon it.⁷⁷

Then, startling the deep silence and pealing over the black floods of ruin, was heard the thunder of the voice of the Almighty, and the command went forth, "Light be". Instantly it flashed from the womb of darkness, and illumined the rolling globe; but only to reveal an overspreading waste of waters.⁷⁸

D. The Reconstruction

The main events of the creative days may be easily summarized as follows:

First day - Light	Fourth day - Light bearers
Second day - Firmament	Fifth day - Marine and aerial life
Third day - Dry land	Sixth day - Land animals and man.

There was an orderly progression in the process of creation. The light of the first day corresponds to the light bearers of the fourth day; the firmament is established on the second day, and the life which peoples the firmament is brought forth on the fifth; the dry land was made to emerge on the third day, and the chief inhabitants of the dry land were created on the sixth.

The First Day. On the first day, God spoke and there was light, Genesis 1:3. Skeptics like Voltaire have inquired, "How could there be light before there was any sun?" Modern science has shown the existence of light apart from the sun, as in the case of phosphorescence and the phenomena of the Aurora Borealis (northern lights). Furthermore, the sun could have been created in the creative activity

in Genesis 1:1 and 2, and could have already been in existence before the first day, or during the first day. Sir James Jeans, the British physicist, referring to the words of Genesis which give the explanation of the origin of light, said, "The whole story of its creation can be told with perfect accuracy and completeness in six words, 'God said, Let there be light.'"⁷⁹

The Aurora Borealis seems to be powerful only when the sun is weak, for its most brilliant displays are restricted to the long nights of the cold north. In more southern climes its appearance is rare, and its development comparatively incomplete, but it is more frequent and vivid at those periods, recurring every eleventh year, when the spots on the sun are larger and more numerous, and the solar power is consequently diminished. It would thus almost seem that the sun absorbs this light and afterwards diffuses it in a modified form. On the purely terrestrial origin of the Aurora Borealis, Humboldt makes the following interesting remarks.

This phenomenon derives the greater part of its importance from the fact that the earth becomes self-luminous, and that a planet, besides the light which it receives from the central body, the sun, it shows itself capable in itself of developing light. The intensity of the terrestrial light, or rather the luminosity which is diffused, exceeds, in some cases of the brightest coloured radiation towards the zenith, the light of the moon in its first quarter, occasionally as on the seventh of January, 1831. Uninterrupted development of light in the earth leads us by analogy to the remarkable process exhibited in Venus. The portion of this planet which is not illumined by the sun often shines with a phosphorescent light of its own. It is not improbable that the moon, Jupiter, and the comets, shine with an independent light, besides the reflected solar light visible through the polariscope. Without speaking of the problematical but yet

ordinary mode in which the sky is illuminated, when a low cloud may be seen to shine with an uninterrupted flickering light for many minutes together, we still meet other instances of terrestrial development of light in our atmosphere. In this category we may reckon the celebrated luminous mists seen in 1783 and 1831; the steady luminous appearance exhibited without any flickering in great clouds observed by Rozier and Beccoris; and lastly, as Arago well remarks, the faint diffused light which guides the steps of the traveller in cloudy, starless, and moonless nights in autumn and winter, even when there is no snow on the ground.⁸⁰

This "light" of the First Day must be carefully distinguished from the "light-holders" of the Fourth, since the word used conveys in itself no idea of concentration of locality. Nevertheless the light must have been confined to one side of the planet, for we are told that God at once divided between the light and the darkness, and that the alternation of day and night immediately commenced.

In past times infidels have scoffed at the idea of light being called into existence independently of the sun. And certainly it does not seem difficult to conceive that Moses could have anticipated science by so many centuries except upon the one supposition that he was instructed by the Spirit of God, Who is not circumscribed by the limits of human knowledge. But now science has discovered that the sun is not the only source of light; but that the earth itself, and at least one other planet in our system, may under certain conditions become self luminous.⁸¹

The fact, then, that at a time when terrestrial luminosity was probably unknown, Moses spoke of the existence of light without sun, is a strong proof of the divine source of his knowledge. For though the Bible gives no information by which science is likely to

be advanced, yet it does here and there drop mysterious utterances, the truth of one after another of which is discovered as scientific men become better acquainted with the laws of the universe.⁸²

We next observe that God called the light day and the darkness night, and that the evening and the morning were the First Day. Now in order to verify certain systems of interpretation, attempts have been made to show that in this chapter a day must be understood to signify an age.

According to the proponents of this theory, the word "day" is sometimes used of prolonged periods, as in the expression "the day of temptation in the wilderness," and many others. Those holding to this theory say that whenever a numeral is connected with it, the meaning is at once restricted thereby, and it can only be used in its literal acceptation of the time which the earth takes to make one revolution upon its axis. It is therefore clear, according to this theory, that we must understand the Six Days to be six periods of twenty-four hours each.

But still further, these days are mentioned as comprising an evening and a morning, as being made up of day and night. Here, then, is another warning against the figurative interpretation, which we must carefully avoid lest we expose ourselves to attacks.

It is evident that the theory that a day means an age of immense geological period might be made to yield some rather strange results. What becomes of the evening and morning of which each day is said to have consisted? Was each geologic age divided into two long intervals, one all darkness, the other all light? And if so, what became of the plants and trees created in the third day or per-

iod, when the evening of the fourth day, the evenings be it observed, precede the morning, set in? They must have passed through half a seculum of total darkness, not even cheered by that dim light which the sun, not yet completely manifested, supplied on the morning of the third day. Such an ordeal would have completely destroyed the whole vegetable creation, and yet it did survive and was appointed on the Sixth Day as the food of man and animals. In fact, it is necessary only to substitute the word period for day in the Mosaic narrative to make it very apparent that the writer at least had no such meaning, nor could he have conveyed any such meaning to those who first heard the account read.⁸³

In the beginning force was created, therefore the command, "Let there be light" does not indicate the absolute bringing forth of a new creature, but rather that it is a new form of function of some existing creature or condition.

It is not probable that light is a new form of matter, but that it is a function of force, for matter, even when endowed with great force, is not appreciably increased in weight, neither does a ray of light impinging upon a mass of matter seem to increase its weight. Therefore, the indications are that light is a new form or function of force, inasmuch as both are without apparent weight and hence exist as intangible essences or conditions, and yet are creatures. It must also be considered that, thus far, but two created states or conditions are mentioned, force and matter, that is (verse one) the heaven and the earth, upon which the vitality of the whole creative system is based.

"And God saw the light, that it was good; and God divided the

light from the darkness." In the division here mentioned the great law is indicated that light should traverse in straight lines, whereby the line of demarcation between light and darkness would become unmistakably manifest. If light be considered as a correlative or function of force, and if in one of its visible properties it projects or produces itself in straight lines, the condition may be considered as an indication that this property also appertains to force itself and to all its invisible correlatives, a manifest confirmative of which is found in the radiation of heat, in the natural growth of plants, in the free electric path, as well as in the line of demarcation between light and shade.

"And God called the light day, and the darkness he called night. And the evening and the morning were the first day."⁸⁴

The Second Day. On the next day, says G. H. Pember in his book Earth's Earliest Ages, a second command went forth, and in obedience to it a movement commenced among the waters. At the word of God the firmament, or atmosphere, was formed; and by its insertion the waters which float above the earth were again raised to their own place, and separated from those which are upon the earth.

There is, however, in the account of this day's work, an omission which is probably significant, for the usual conclusion, "And God saw that it was good," is in this case left out. G. H. Pember's explanation for this omission is as follows:

May not the withholding of God's approval be a hint of the immediate occupation of the firmament by demons, those indeed, which are its present inhabitants? Since they were concerned in the fall of man, they must have speedily appeared in the newly-formed atmos-

phere. May they not, therefore, have been imprisoned in the deep, and having found some way of escape at the lifting up of the waters, have swarmed into the dominion of the air, of which their leader is prince. In this case the firmament might have been teeming with them before the close of the Second Day, and we need not wonder that God refused to pronounce their kingdom good.⁸⁵

The word firmament seems to imply that the Bible writer conceived of the sky as a solid vault, "something firm", in which the sun, moon, and stars are fixed like light bulbs. The liberal writer, Skinner, held that this was the unscientific view of the ancient Hebrew writers. He said, "the firmament is the dome of heaven, which to the ancients was no optical illusion, but a material structure..." A further analysis gives us the answer to the charge that the Bible is unscientific in this regard. The word "firmament" is a mistranslation due to the false astronomy of the Greeks of the third century B. C., who believed that the sky was a solid crystalline sphere. Hence, the Hebrew word "rakia" was rendered "stereoma" in the Greek translation of the Old Testament. Then when Jerome translated the Old Testament into Latin, he used the Latin word firmamentum, which in turn was rendered by the English word firmament in our King James translation. The original word in the Hebrew, "rakia", does not have the idea of something "firm" but comes from a root meaning that which is stretched out, attenuated, or extended, and is best translated "expanse". It perfectly describes the expanse of the atmosphere of our earth, and is correctly noted in the footnote of the American Revised Version. In summary, the word firmament is a faulty translation arising from the false science of the third century B. C., and incorrectly translates the original word. Hart-Davies well comments,

Thus what has been frequently exhibited as a blunder in the Biblical narrative proves to be the product of a mistake in the realm of science; or, shall we say, a misguided attempt on the part of the modernists of two thousand years ago to "restate" the ancient faith in terms of modern thought?⁸⁶

The second day of the creation indicates the division of matter. The division of matter involves motion, and motion involves force; therefore it follows that this division was accomplished by force, which force, by the text, is called the firmament or heaven. According to verse one, the heaven was created in the beginning or in the first day, hence it does not follow that the firmament is an absolutely new creation of the second day, but that in the second day, some function of force acted upon matter whereby it became divided, and that this particular condition or correlation of force was developed in the second day. Then the earth was placed in space, space being a void or an emptiness; hence the command, "Let there be a firmament in the midst of the waters," indicates a new working form of force, the firmament being neither space nor matter.

At this stage of the creation matter seems to exist in a fluid state, that is, its atoms are not in actual contact, they being kept asunder by some form of force. Hence it follows from the command that large masses of matter in a fluid or mobile state took up new positions, separate and independent the one from the other, without regard to intervening space, and were governed in such positions by the strength of the forces involved. It becomes manifest that the separating force must be checked by a counterforce, when any desired position of matter is reached, that force itself may not become a dead function. This counterforce is recognizable in the attraction of gravity or the mutual

attraction existing between two bodies of matter. The separation of aggregate matter, at this time, into detached masses may be considered confirmative evidence that the primary motion of matter was that of revolution about an axis; but by the text, the separation of aggregate matter into detached masses was accomplished during the second day.⁸⁷

The Third Day. On the third day, God caused the waters of the earth to be gathered together, perhaps by the depressing of low places and by the elevation of solid ground. The earth was not ready for vegetation and God said, "Let the earth bring forth grass...herb...fruit tree..." Genesis 1:11.

The voice of the Lord was again heard, and in quick response the whole planet resounded with the roar of rushing floods as they hastened from the dry land into the receptacles prepared for them, and revealed the mountains and valleys of the earth. This grand movement is thus described in the hundred and fourth Psalm.

He established the earth upon the foundations thereof, that it should not be moved for ever and ever. With the deep as with a garment thou didst cover it, above the mountains did the waters stand. At thy rebuke they fled, at the voice of thy thunder they hasted away, the mountains rose, the valleys sank, to the place which thou hadst established for them. Thou has set them a bound which they cannot pass, that they turn not again to cover the earth.⁸⁸

In this passage we find a strong confirmation of the view that has been adopted. For while the deep is represented as spread over everything, the mountains together, of course, with all their fossil enclosures, are mentioned as already existing beneath it. They had evidently been formed long before the Third Day. And in strict ac-

cordance with this fact is God's command, "Let the dry land appear," or more literally, "be seen", not, "Let it come into existence." The words, "the mountains rose, the valleys sank," are a parenthesis and describe, of course, or they would conflict with the statement in the sixth verse, the general effect of the scene to a spectator as the waters subsided to their proper level.

On the same day the word of God went forth a second time, and the now liberated soil began to cover itself with a garment of vegetation, the fresh verdure of which was diversified with the hues of countless flowers.⁸⁹

The command, "Let the waters be gathered together and the dry land appear," is said to involve the institution and development of the great field of chemical affinities which is but another condition, state, function, or correlation of force, and force was called in the beginning. By its action diverse atoms rapidly approached each other, and clashing together, reacted in huge bodies, some solid, some liquid, some gaseous. These in turn acted and reacted upon each other for ages, evolving great heat, and with a violence inconceivable, until a chemical equilibrium was partially established, at which time the command for the dry land to appear and for the waters to be gathered together became an established fact. These particular waters are now called seas and the dry land is called earth, but the waters spoken of at the first evidently expressed the original existing flowing condition of aggregate matter, even as the waters of the present day express a flowing condition, but with a different density.

"And God said, Let the earth bring forth grass, the herb yielding seed, and the fruit tree yielding fruit after his kind, whose seed

is in itself, upon the earth: and it was so."

In the evening of this, the third day, the substance of the earth was gathered together unto one place, and after passing through many chemical changes which were terribly sublime in their character, it was left in a condition suitable for the development and propagation of vegetable life. The command for the institution of vegetable life and its propagation and the fulfillment of the commands are given in the above verses which fill out the concluding portions of the burden of the third day.

It will be observed that at this time the grass, the herb, and the fruit-bearing tree are not nourished by solar light and heat, and therefore the light and heat necessary for their development must come from another source, which in this comparatively early stage of the creation, evidently is derived from the firmament or force that was created in the beginning, in some one or more of its correlate conditions, the earth itself in all probability being the instrumentality through which such correlatives developed the new forms of matter.⁹⁰

The Fourth Day. The earth itself was now completely restored, and again fitted for the support and enjoyment of life; it only remained to establish its relations with the heavenly bodies. This God did upon the Fourth Day by concentrating the light-material which He had previously created, into light-holders. For the word used of the light of the First Day is "or", and of that of the fourth, "maor". This last is the same as the first, but with a locative prefix which makes it signify a place where light is stored, or a light-holder.

Now we must carefully observe that God is not said to have

created these light-holders on the fourth day, but merely to have made or prepared them. They were created, as we have seen, in the beginning, and since the sun appears to be a dark body enveloped by luminous clouds, it was doubtless around its mass that the earth was revolving from the first. Probably, too, the great luminary of our world was also the light of the preadamites, but its lamp had been extinguished, and on the fourth day God gave or restored to it the capacity of attracting and diffusing the light-material, by the exercise of which power its photosphere was quickly formed.

And so the solar rays, as they hastened through space, struck upon the moon, and lighted up its silver orb in the firmament of night.⁹¹

The word rendered "made" (*asah*) does not necessarily imply a creative act, being different from the word "create" (*bara*). Furthermore, in the next verse (17) it says that God "set them (*nathan*) in the firmament," employing the Hebrew word usually translated "gave" (*nathan*), which often is used in the sense of "institute." Taking *nathan* in this sense of "institute", we could translate verse 17, "And God instituted (that is, appointed) them in the firmament of the heaven to give light upon the earth." Hence this passage may refer to God's declaration of the function of the heavenly bodies rather than to their creation. The word "create" (*bara*) is not used here. A second view holds that while light was created on the first day, it was concentrated in the sun on the fourth day; that is, at the word of God, the heavenly bodies came into operation as lights of the universe.⁹²

We are next told that God made or prepared, not created, the

stars also; that is, apparently so altered or modified the firmament, perhaps by the concentration of light into the sun, that the stars then first appeared or re-appeared in it. At the close of the third day earth was finished and ready for the reception of life, while the stars are not mentioned until the fourth day. But in a passage of Job we are told that the morning stars were admiring witnesses when God laid the foundation stone of the earth, and sang together for joy at its completion, Job 38:4-7. They must therefore have been pre-existent. And so God's preparation of them on the fourth day must have had reference only to their appearance in our firmament, to the purpose which they were to serve in regard to our earth.⁹³

The sun, moon, and stars were not called lights until the fourth day. From the indications of the similar conditions of matter at the beginning, there seems to be good grounds for supposing that the action for solidifying the detached masses of matter which compose the sun, moon, and stars, in general the same as that whereby the earth had been solidified, and that the same laws which apply to the earth would apply to them also.

But the indication seems evident from the text that the command for the gathering together of these bodies in their respective places as comparatively solidified bodies was not given until the fourth day, although they existed as detached attenuated masses from the second day and were most probably, when in this condition, as obedient to the fixed laws of force as when later they were solidified, each having had its individual centre of attraction established on the second day.

Now inasmuch as the manifest mission of these great lights is to give light upon the earth, and as they are for signs as well as for

seasons and years, it follows that the earth was developing far in advance of them for some great and special purpose altogether outside of their physical construction and their ultimate mission. From the text it becomes evident that, whatever may have been the particular source from whence vegetable life drew its light and heat, that from the fourth day they shall be derived from the sun, although it does not follow that the preceding correlatives are inactive and void.⁹⁴

The Fifth Day. Thus the fourth day came to its close and the fifth day began. All was now ready; the work of restoration was finished and the habitation prepared. Then the creative power of God was put forth, and the waters, which had hitherto been void of living beings, were commanded to swarm with the creature that hath life. The King James version of the Bible, "Let the waters bring forth," is incorrect. The literal rendering is, "Let the waters swarm with swarms, with living creatures," but the text does not tell us that these creatures were produced from the waters.

The following clause is still more grievously mistranslated, since the English is made to imply that even birds were formed from the same element. This would be a direct contradiction of the nineteenth verse of the second chapter where they are said to have been moulded of earth. But the contradiction does not exist in the Hebrew, the exact sense of which is, "And let fowl fly above the earth in the face of the firmament of heaven." Hence in this verse both fish and fowl are merely commanded to appear in their respective elements without any hint as to their origin.⁹⁵

Why were fowl and fish created on the same day? It is explained on the ground of their similarity, fins being like wings. It seems

likely, however, that it was due to the fact that creation proceeded from the lower to the higher, fish and birds occupying a lower place in the scale of life than land animals, especially mammals.⁹⁶

The Sixth Day. On the sixth day God made land animals and man. "And God said, Let the earth bring forth the living creature after his kind, cattle and creeping thing, and beast of the earth after his kind... And God said, Let us make man in our image, after our likeness... So God created man in his own image, in the image of God created he him..." Genesis 1:24-27. Why does the creation of land animals and man fall on the same day? Lange points out that man has his being, as to his bodily appearance from the earth in common with the animals. The land emerged on the third day of creation and now in the corresponding day in the second group of three, that is, the sixth day, the creatures which inhabit the earth were formed. However, there is a great gulf between the animals and man, and one of the prime reasons is the fact that God created man in His own image, in His spiritual likeness, Genesis 1:26. This divine likeness was marred by the fall, shattered by sin, but when a person puts his trust in Christ, his nature is transformed into the image of God again.⁹⁷

There were four classes of living creatures, cattle or domesticated animals, creeping things or land reptiles, insects and worms, and beasts of the field or wild roaming animals. But as was shown above, all these creatures were graminivorous, for in the thirtieth verse the green herb alone is given them for meat. Nor, of course, was man allowed to feed upon animal flesh. In the twenty-ninth verse his diet also is restricted to the seed bearing herb and the fruit of trees. The present state of things in which animal food is allowed

and necessary to man and carnivorous beasts, birds, and fishes abound, testifies to a woefully disorganized and unnatural condition, such a one as would be impossible save in a world at variance with the God of order, love, and perfection.⁹⁸

The Seventh Day. On the seventh day, God rested from His creative work and blessed the seventh day and sanctified it, Genesis 2:2, 3. This shows that the sabbath principle of setting apart one day in seven existed from the beginning.⁹⁹

We have before seen that neither the plants of the third nor the creatures of the fifth and sixth days have anything to do with the fossilized remains found in the earth's crust, because the crust is assumed to have been formed before the great preadamite catastrophe. For the mountains with all their contents are described as already existing beneath the floods of the deep, and as having appeared without need of creation or preparation, as soon as the waters retreated to their bounds. We are now able to add other cogent reasons in confirmation of this view.

E. Evidence in the Rocks

During the six days there were three distinct acts of creative power, by which vegetation, fish, birds, land animals, and man were successively produced. It is evident that all the plants of our world were created on the third day, while no moving creature that had life was called into being until the fifth day. If, then, the theory which makes each day a geological period is correct, the remains of plants only would be found in the lowest fossiliferous strata.

These would fill the formations of their own and the following age; after which they would be mingled with fossil birds and fishes: then, in the rocks of a yet later period, the remains of land animals would also appear. And such a sequence would form the only possible agreement with the account in Genesis.

But what is the result of an examination of the strata? The lowest fossiliferous system is the Silurian: is nothing found but vegetable petrifications? Quite the contrary. The lower and middle Silurian rocks contain a few seaweeds indeed, but no land plants whatever. Yet they abound in creatures belonging to three of the four sections of the animal kingdom, in mollusca, articulata, and radiata. It is only in the highest strata of the upper Silurian rocks that land plants begin to appear, and together with them some specimens of vertebrates, the remaining section of the animal kingdom. If then, in this oldest fossiliferous system are found plants rare and yet every division of the animal kingdom represented, how can an attempt be made to force such a fact into accordance with the Mosaic narrative!

Again, the history of Genesis mentions three distinct creations, of plants, of birds and fishes, and of land animals. But in the eight classifications of strata, from the Tertiary down to the Silurian, there would appear to have been at least as many creations as there are systems, each creation including a very large proportion of animals and plants peculiar to itself.

It is demonstrated that the totality of organic beings was renewed, not only in the intervals of those great periods which were designated as formations, but also in the stratification of each separate division of every formation. Nor is it believed in the genetic

descent of the living species from the different tertiary divisions which have been regarded as identical but which are held to be specifically different; so that the idea of a transformation of the species of one formation into that of another cannot be adopted. In enunciating these conclusions, let it be understood that they are not inductions derived from the study of one particular class of animals, such as fishes, and applied to other classes, but the results of direct comparison of very considerable collections of petrifications of different formations and classes of animals.

Thus the crust of our earth appears to be a vast mound which God has heaped over the remains of many creations. And geology shows us that the creatures of these ancient worlds either perished by painful disease and mutual destruction, or were overwhelmed in an instant by the most terrific convulsions of nature.

F. The Creation of Man

Lastly, it is recorded in Genesis 1:26-29 that all the living creatures and plants created during the Six Days were given to man. It is reasonable, therefore, to suppose that they were intended to remain with him throughout the whole course of his world. And hence, again, the certainty that the fossil plants and animals, nearly all of which were extinct before the creation of Adam, have nothing to do with the creatures of the Third, Fifth, and Sixth days.¹⁰⁰

"And Jehovah God formed (Hebrew, Yatsar) man of the dusts of the ground, and breathed into his nostrils the breath of life, and man became a living soul," Genesis 2:7.

A careful study of this verse shows that man was formed, not created. A chemical analysis shows that good soil is composed of about eighteen elements. A chemical analysis of human flesh shows that it contains the same eighteen elements. This fact helps one to better understand such a scriptural verse as, "...all are of the dust, and all turn to dust again." Ecclesiastes 3:20.

In Genesis and other portions of scripture it is seen that a triune God originated all life, God the Father creating the original materials for a universe, God the Son forming some of these into plants, trees, animals, and men, and God the Holy Spirit breathing into these the breath of life and they became living things.¹⁰¹

The detailed account of the creation of man which now presents itself for our consideration is a subject of the deepest interest, for it forms the only possible basis of true doctrine in regard to the origin and nature of our race. We must, therefore, carefully examine it, but the labour will not be tedious, for the whole revelation is contained in the following brief record, "And the Lord God formed man of the dust of the ground, and breathed into his nostrils the breath of life; and man became a living soul." Genesis 2:7. There are thus three points to consider; the formation of the body, the infusion of the breath of life, and the result that man awoke to consciousness a living soul.

First, then, the Lord God formed man, that is, moulded his bodily shape as the potter does the clay. Indeed the meaning of the Hebrew verb is so decided that its present participle, used as a substantive, is the ordinary word for a potter. To this first act of God, Job refers when he says, "Remember, I beseech thee, that thou

hast made me as the clay; and wilt thou bring me into dust again?"

Job 10:9. For the material moulded was the dust of the ground which had just been moistened by a mist; and hence it is afterwards said, "Dust thou art, and unto dust shalt thou return." Genesis 3:19.

The word translated "ground" is *adamah*, which properly means red earth, and from which the name Adam seems to be derived. This corresponds to the natural colour of human skin which is red on white, and in accordance with which Solomon's description of ideal beauty begins with the words, "My beloved is white and ruddy."

The spirit of man had nothing to do with the formation of its sheath. God first moulded the senseless frame, and then breathed into it "the breath of lives"; for the original of the last word is in the plural. It has not, however, previously been noticed because it may be nothing more than the well known Hebrew plural of excellence; the word, which is the common term for life, is rarely found in the singular. But if significance is given to the number, it may refer to the fact that the inbreathing of God produced a two-fold life, sensual and spiritual, the distinct existence of each part of which may often be detected within ourselves by their antagonism.

This breath of lives became the spirit of man, the principle of life within him, for, as the Lord tells us, "it is the spirit that quickeneth," and by the manner of its introduction it is taught that it was a direct emanation from the Creator. It must not be confused with the Spirit of God, from Whom the Scriptures plainly distinguish it, and Who is represented as bearing witness with our spirit. (Romans 8:16.) In the Book of Proverbs, it is referred to as the candle

of the Lord, capable of being lighted by His Spirit, and given by Him as a means whereby man may search into the chambers of his heart and know himself.

Man was thus made up of only two independent elements, the corporeal and the spiritual: but when God placed the spirit within the casing of earth, the combination of these produced a third part, and man became a living soul. For direct communication between spirit and flesh is impossible; their intercourse can be carried on only by means of a medium, and the instant production of one was the result of their contact in Adam.

He became a living soul in the sense that spirit and body were completely merged in this third part: so that in his unfallen state he knew nothing of those ceaseless strivings of spirit and flesh which are matters of daily experience to the fallen. There was a perfect blending of his three natures into one, and the soul as the uniting medium became the cause of his individuality, of his existence as a distinct being. It was also to serve the spirit as a covering, and as a means of using the body; nor does Tertullian seem to have erred when he affirmed that the flesh is the body of the soul, the soul that of the spirit.¹⁰²

But it is interesting to notice that, while the soul is the meetingpoint of the elements of our being in this present life, the spirit will be the ruling power in our resurrection state. For the first man Adam was made a living soul, but the last Adam a quickening Spirit; and that which is sown a psychic body is raised a spiritual body. (I Corinthians 15:44)¹⁰³

Now Adam gives names to the animals. This is one responsibility

that God gave to Adam. While Adam used his free will for the first time, we see that he performed this difficult task. Perhaps God helped him in this, for He does help His obedient children in ways that we do not understand. Dr. Bole says that this does not mean the giving of names to eight hundred thousand animals that now live in the sea and on the land. Linnaeus spent many years in giving the Latin names to animals, some of which have not been discovered and so have not yet been named.

It is quite probable that Adam gave names to just those animals formed in the reconstruction which may have been just the higher land animals and birds that had their beginning at this time. There are the records of how several hundred kinds of sweet pea have been developed since the year 1700. On this basis all the cattle could have come from one pair and all the deer from one pair, and Adam's task would not have been as great as some might suppose.¹⁰⁴

G. Summary

In this chapter the Scriptural Doctrine of Creation has been presented, beginning with a presentation of the three main theories that are held by Bible scholars concerning the creation by God of the world itself. This was followed by a scriptural account of the seven creative days as presented in the first two chapters of Genesis. The Scriptural account is then compared with what the rocks and fossils of today show.

Then a study of the creation was made, giving special attention to how man was formed from the dust of the earth and the manner

in which God breathed into him the breath of life and man became a living soul with the responsibility of tending the Garden of Eden and of naming the animals.

CHAPTER IV

AN EXAMINATION OF THE METHODS AND PROCEDURES OF NATURALISTIC EVOLUTION

A. Introduction

In chapters two and three the teachings of two completely divergent points of view were presented concerning creation. Both of these lines of thought were presented as clearly and accurately as possible so that they might be compared as to their truthfulness.

Assumptions on which the theory of Evolution is built were dealt with in this chapter. The testimony of scientists themselves concerning the reliability of evolution was also dealt with. This includes statements by men such as H. W. Conn, Dr. Rudolph Schmidt, and Tyndall, admitting that the theory of Evolution has never passed the stage of theory. A study was made of rocks, man, immutability, comparative anatomy and rudimentary organs, stratified rock, the brain, embryology, blood tests, and the geographical distribution of animals. Each of these phases of the Naturalistic Evolutionary theory were examined in relation to scientific procedure and the findings of those holding to the Scriptural account of creation.

B. Testimony As to the Reliability of the Theory of Evolution

In this chapter the theory of Naturalistic Evolution will be

taken step by step as it was presented in chapter two, and examined in comparison with the Scriptural account of creation.

With perhaps the exception of Professor Ernest Haeckel of Jena, most evolutionists admit that evolution is unproven. One of the writers, and most impartial, is Professor H. W. Conn, who says in his Evolution of Today:

Nothing has been positively proved as to the question at issue. From its very nature, evolution is beyond proof... The difficulties offered to an unhesitating acceptance of evolution are very great and have not grown less since the appearance of Darwin's *Origin of Species*, but have in some respects grown greater.¹⁰⁵

Alexander Patterson, in his book The Other Side of Evolution, page ninety, quotes Dr. Rudolph Schmidt who wrote, "All these theories have not passed beyond the rank of hypothesis." and Professor Whitney of Yale University who said, "We cannot think the theory yet converted into a scientific fact and those are perhaps the worst foes to its success who are over-hasty to take it and use it as a proven fact."

Patterson also records what Tyndall said, "Those who hold the Doctrine of Evolution are by no means ignorant of the uncertainty of their data, and they only yield to it a provisional assent."

This universal admission may be a surprise to the non-scientific reader, especially in view of the astounding and sweeping claims the theory has made. It may seem strange that a confessedly unproven theory has been made the basis of all "modern thinking", the foundation of a universal philosophy, the cause of a revolution in theology, and the reason for rejecting the narratives of the Bible, and on the part of some, of abandoning Christianity and launching into atheism.

Yet such is the case. It can be said here, "Is this Science? Is it scientific to accept as true an unproven theory and make it the basis of all belief?"

In discussing evolution, there must always be a distinction between fact and theory, between things proven and assumed. For the writers continually intermingle these in a confusing way. It must always be asked concerning these statements, Is this proven or assumed? The jury has a right to ask that everything be proven absolutely before rendering a verdict for evolution.¹⁰⁶

Before making such a serious charge against a theory that it is both unscientific and unphilosophical, it must be shown that others have held a similar view and that among these there are many scholars. Professor Poulsen remarks that Haeckel's reasonings are a "disgrace to the philosophy of Germany." Professor George Frederick Wright calls evolution a "fad", "the cast-off clothing of the evolutionary philosophy of fifty years ago." The Duke of Argyle says, "It is such a violation of and departure from all that we know of the existing order of things as to deprive it of all scientific base."

C. Evidence That Evolution is Untrue Scientifically

Evolution fails in all the steps of scientific proof. There are four stages of proof necessary for a full demonstration:

1. Observation of facts.
2. Classification of these facts.
3. Inferences legitimately drawn therefrom.
4. Verification of these conclusions.

1. It fails in its facts. That this is true is evident from

the reticence of the exact scientists to commit themselves to the theory. If the facts were all completely accurate, these laborers in the laboratory and field would acknowledge the case. In the presentation of facts, the theoretical evolutionist culls out and magnifies those looking his way and passes in silence or minifies those antagonistic to the theory. It makes much of the change of a low salt water animal into its fresh water form, and passes over the immutability of all the great species. Evolution dwells upon the splints in the leg of the horse and passes over lightly the vast unbridged gaps between organic and inorganic matter, the origin of the vertebrates, and the countless missing links between the species. It rests its argument on the "gill-slits" in the necks of embryonic fish, puppies, and infants, and passes airily over the origin of matter, of life, of consciousness, and of Christian experience. It presents ex-parte evidence..

2. Evolution fails in classification. The testimony of evolution itself has been seen on this point. Nor is there any agreed definition of species. Not a single species has been traced to its origin. The species defy chronological classification. The most primitive species exist today and the most advanced were in existence almost at the first. Nor can the classifications which are attempted be advanced as proof of evolution. They are as evidential of manufacture or of creation or of any other process of intelligent mind.

3. Evolution rests on inferences. As its great philosopher, Spencer, has said, "No inference is warranted unless it accounts for all the facts." Not only does no inference of evolution do this, but it admits again and again that it is beset with countless difficulties.

Nor are these inferences the only ones that might be drawn. It is not only necessary to draw an inference but to show that no other inference is possible. Some of these are the wildest possible deductions from the facts, as for example, the theories as to the origins of whales and giraffes.

The works of writers on evolution abound in such phases as, "seems to be--I infer--it is conceivable--it might have been--it is probable--I think--apparently--must have been--no one can say--not difficult to conceive," and other unscientific terms, and on such deductions they project other inferences, and so leap skillfully from one supposition to another across the quagmire of evolution.

Evolution is undertaking a philosophical impossibility, the proving of a negative, that there could be no other method than derivation. This is the philosophical basis of the whole theory.

4. Finally, evolution fails in the fourth step. It admits again and again that it has not demonstrated its case. Not a single instance of evolution of species has been shown or produced, and no law of the change is given. The gaps it does not bridge are many. We especially need to notice that it gives no account of the origin of matter or force. It can give no account of the origin of life. It utterly fails to account for man's self-consciousness or intellectual, moral, or spiritual nature. It takes no account whatever of the other world or life and entirely disregards the facts of Christian experience. In short, so far from being a great universal philosophy it is simply a disjointed combination of unproven theories.¹⁰⁷

The scientific method is the inductive method of Bacon. All

the facts in a given case are gathered, studied, correlated, and from all the facts the conclusion is drawn. Evolution did not come in this manner. Men arbitrarily assumed the theory from their philosophy and then moved heaven and earth to find the facts to prove their hypothesis. This procedure violates the scientific method.¹⁰⁸

The evolutionists are guilty of faulty reasoning. They reason in a circle, the fallacy known in logic as "begging the question". The "index fossils" are a good illustration of this error in reasoning. The ages of the rocks are set by the fossils regardless of the depth, state of preservation, and appearance in the strata, and then the antiquity of the fossils is proved by the age of the rocks in which they occur. In other words, the truth of the theory is assumed. Fossils are dated to conform to the theory and then these same fossils, "fixed" and "tampered" witnesses, are used to demonstrate the ages of the rocks. The rocks are dated by the index-fossils, and the age of the fossils is demonstrated by the rocks, rocks whose own age is determined by the fossils which both date them and are dated by them. This is a perfect illustration of "reasoning in a circle", "begging the question", and "assuming that which is to be proved".¹⁰⁹

D. What the Rocks Actually Reveal

There is found in the rocks a sudden appearance of the distinct divisions of animal life. "We find the geological record of the earth begins indeed with well developed representation of all the chief groups of the animal kingdom with the exception of the back-boned animals," says Dr. J. W. Gregory in Geology of Today. "These old or-

ganic types are as complex and as highly specialized in their structure as the animals now in existence.", Dr. H. A. Nicholson in A Manual of Geology, page 97. Doctor Austin H. Clark of the United States National Museum said,

So far as concerns the major groups of animals, the creationists seem to have the better of the argument. There is not the slightest evidence that any one of the major groups arose from any other. Each is a special animal complex, related more or less closely to all the rest, and appearing therefore, as a special and distinct creation... that man appeared on earth substantially as he is today...to all intents and purposes the product of a special creation.¹¹⁰

However, Doctor Clark believes in evolution with gigantic jumps or mutations. This view is acceptable to some Bible lovers, who see each "jump" as an act of God in dramatic creation. Doctor Robert Watts said, "The record of the rocks knows nothing of evolution." Sir Robert Murchison once said, "I am probably as well posted in geology as any man living, and I can fearlessly say that the geological record does not afford one syllable of evidence." Branco of Berlin stated, "Paleontology tells us nothing of the subject, it knows no ancestor of man."

H. G. Wells, while not an expert himself, mirrors the thinking of evolutionary authorities. He makes this damaging admission:

The record of the rocks does not begin, therefore, with any group of closely related forms from which all subsequent and existing creatures are descended. It begins in the midst of the game, with nearly every division of the animal kingdom already represented. Plants are already plants; animals, animals. The curtain rises on the drama in the sea that has already begun, and has been going on for some time. The brachiopods are already in their shells.

The rock record reveals a clear cut line of distinction between the various groups and species preserved. This observation follows hard on the heels of the first; the groups appeared distinct and remained distinct. Darwinism assumes thousands of minute modifications in every direction from every species. Hence we would expect to find the family tree in a fluid state with one group shading over into another, but such is not the case. One would expect to find several million bridge-forms or "missing links" in the gaps between the some million estimated species in the rocks. The million species are preserved but the bridge-forms have unfortunately been lost. This fact is fatal to the theory, for the proof of evolution is the part omitted from "The great stone book of the universe." The simple forms of life persist in the same simplicity as their first known ancestors. In all the phyla some genera and even species have persisted unchanged from the oldest strata down to the present day.¹¹¹

Into this consideration must be taken the deplorable, if not absolutely dishonest practice which is in vogue, of inventing new names for fossil duplicates of modern species, in order to mask or obscure an identity which conflicts with evolutionary preconceptions. George McCready Price says,

When species are found in kinds of rock where they are not at all expected, and where, according to the prevailing theories, it is quite incredible that they should be found... the not very honorable expedient is resorted to of inventing new names, specific or even generic, to disguise and gloss over the strange similarity between them and others which have been assigned to wholly different formations.¹¹²

This theory of evolution assumes, since it is supposedly true, that fossils occur in a certain order. So regardless of apparent condition of the rocks, texture type, or depth beneath the surface, the fossil becomes the index of the age of the stratum. Whenever the physical evidence conflicts with the biological, as revealed in the

fossils, the evolutionists follow the latter. Hence it is seen that the theory has not been deduced from the field of geology but an effort has been made to pigeon-hole the data into the evolutionary mold. The Seivalik beds (Miocene) of India revealed a modern horse. Immediately the division into Upper and Lower Seivalik was made, and the former assigned to the Pleistocene in order to keep the horse younger than his supposed ancestors. When younger fossils are found interbedded with older fossils they are classified as "Pioneer Colonies"; and if a class skips an epoch and then reappears, it is called a "Recurrent Colony". When a problem arises it is a simple matter to juggle, invent, and change the labels, and so save the face of the theory. No wonder Price questions why these gentlemen pretend to be investigating the facts of nature when they know all of the answers beforehand. Evolution is not a fact drawn from Geology, but an assumption to which the data of Geology are, as far as possible, forced to conform.¹¹³

Professor A. C. Seward says, "The student that takes an impartial retrospect soon discovers that the fossil record of evolutionists raises more problems than it solves."¹¹⁴

E. The Supposed Evolution of Man

The next problem to be taken under consideration is that of the evolution of man, himself. On this argument rests the theory of man's animal origin. But for the desire to prove that such is man's origin, the argument would never have been conceived. There is decided difference of opinion on this theory; many object to it.

There is not a single case of such origin of species known. There is no law or force or cause agreed upon or known by which such origin of species could take place. There are countless objections and facts against it. Its arguments are confessedly insufficient, and they are at best but inferences and only "the balancing of probabilities."¹¹⁵

The oldest human remains which have been found are certainly much more like those of the apes than the men of today, particularly in the shape of the skull. But these old skulls are so few in number that it is impossible to draw any conclusions from them, particularly when it is pointed out that even today there are occasionally found skulls which are about as low as these fossils.¹¹⁶

These degraded peoples are pointed to by evolution as man in a state of development.

These men of the cave do not necessarily represent man in a course of progress, for we find today the same classes of people with their stone tools and pottery, living as prehistoric man lived. There are today men in every stage of the supposed progress from the cave man to the highest in civilization. Such remains could be had in any burial place of these savage peoples. Prehistoric man, so called, is still with us and we can interview him as to his state and history.¹¹⁷

Evolution asserts that a vast antiquity for man has been proven by remains that have been found. It is commonly said that these remains are hundreds of thousands of years old, but the claims for these vast periods are now being greatly reduced and generally discredited.

The age of the peat beds of Abbeville in France, in which human remains have been found, was once estimated at twenty thousand years. The estimate has been reduced to a fifth of that age. The remains of the animals found with man are supposed to prove his extreme antiquity. The remains of the mammoth were once cited as such proof. But the mammoth has been found in such a state of preservation that its flesh has been fed to the dogs.¹¹⁸

Now look at the attempts to bind man to the brute. Zittel noted thirty genera of pro-simial and eighteen genera of genuine fossil apes between the lower Eocene and Alluvial Epoch, but not one fossil species of man's ancestry. Here are the attempts evolutionists have made to find the "missing links".

1. Pithecanthropus Erectus, the Java Ape-man. See on page 34. Newman of Chicago in his Readings, speaks of this "highly transitional form", and says it consists of two upper molar teeth, a thigh bone, and a skull cap, which were discovered near Trinil, central Java, in 1894. Rutat and McGregor made reconstructions from this data, but these subjectively colored restorations are poles apart in appearance which shows how much imagination enters into the interpretation. Imagine artists four hundred seventy five thousand years hence, drawing George Washington's picture with only two of his teeth, a leg bone, and a portion of his skull to guide them! The facts in this case are worse than the illustration, for the relics were not all discovered at one time but over the space of a year and the fragments found as far as fifty feet apart! Nobody knows that the bones were worn by the same creature!

It is claimed that the thigh bone of the "discovery" was worn

by a creature which walked practically erect, hence an evolution that is above the gorilla types which use their forearms for crutches. But the gibbon walks erect! "After examining hundreds of human femora," says Dubois, "Manouvrier could find only two that had a somewhat similar shape. It is therefore very rare in man. With a gibbon a similar form normally occurs." Hence the leg bone may be that of a gibbon as easily as that of a missing link.

The brain cap could be that of a man for the race of Weddas, dwarfs of Ceylon, have an average cranial capacity of nine hundred sixty cubic centimeters, which is also that of the Pithecanthropus. Some of the experts say this "link" was a man; others such as Hertzwig and McNamara, the craniologist, say an ape. Virchow and Hrdlicka declared the teeth to be ape-like.

All that is known of the Pithecanthropus is that the widely scattered fragments may be from as many creatures, and even if they were all from the same individual, they could be accounted for adequately by saying they are the remains of a gigantic hylobatix (Gibbon-like) ape. Even if evolution is assumed to be true, it cannot be proved that the ape man was one of the transitional forms. The Pithecanthropus Erectus, "the ape that walks like a man," affords no evidence for the proof of evolution.¹¹⁹

2. Eoanthropus Dawsoni. See page 35. The famous "dawn man" was found at Piltdown Commons, Sussex, in England. The various fragments which compose this find were discovered over the space of several years, are quite scanty, and the data variously interpreted. Dr. A. Smith Woodward, who made the restoration, assigned to the lower jaw a tooth; Gerrit Miller of the United States Museum assigns to

the upper. Then to cap the climax, is the testimony of Professor David Waterson, J. H. Gregory, and Ales Hrdlicka that the mandible is not a human jaw but that of an ape. Others classify it as a chimpanzee. Anyone can combine a simian mandible with a human cranium and, if the discovery of a connecting link entails no more than this, there is no reason why evidence of human evolution should not be turned out wholesale. The Piltown link, then, is a chimpanzee formed of scanty fragments which may or may not have been from the same creature.¹²⁰

3. Homo Heidelbergensis. See page 34. A workman near Maurer, Germany, October 21, 1907, discovered this fossil jaw which was broken in the process of discovery. The teeth are small and quite human while the jaw is massive and the chin is quite recessive. With the exception of the recessive chin the same type is the normal Eskimo jaw. The mastication of tough foods would tend to produce such a jaw. Hence it is not a transitional type from brute to man. The picture shown of the "Heidelberg man" has only this jaw for their basis.

4. The Neanderthal Man. See page 35. His remains were discovered in a cave near Hochdal, Germany in 1856. The bones were thrown out of the cave so no scientist ever saw them in their original setting. The remains were pronounced to be those of a Mongolian Cossack, Professor Clement of Bonn and L. Meyer; an idiot, C. Carter Blake and Carl Vogt; artificially deformed, Davis; ancient Celt or German, Pruner-Bey; ancient Hollander, Wagner; primitive Frieslander, Rudolph Virchow; and so on. Other discoveries of the so-called Neanderthaloid type were found in the Men of Spy, La Naulette, Krapina, Le Moustier, and La Chapelle. It is sufficient to say that there are races of men

living today with skulls the same size and type of this presumably transitional race. McNamara says, "The average cranial capacity of these thirty six skulls, (namely, Australian and Tasmanian blacks) is even less than that of the Neanderthal group, but in shape some of these two groups are closely related." St. Mansui, Bishop of Towl in the fourth century, Robert Bruce, the Scotch hero, and Rudyard Kipling have heads of this type. Are they missing links? Nonsense. Then too, because some of these Neanderthal skulls are small, there is no reason to ignore the average type any more than to take the skull of an Ellis Island idiot as the index of European intelligence. Some of the Neanderthal skulls are of such a type that Huxly says they may have housed the brains of a philosopher. This race used various implements, painted with ochre, had solemn burials in rock-hewn tombs with the dead placed on the back with the head to the west, and left such other indication as reveal their belief in immortality. There is no proof of transitional forms here.¹²¹

5. The Cro-Magnon Men. See page 36. Newman mentions this race as the last in his series, and the bust is on the line in the series in the New York Museum. He is not a transitional type, but he is Homo Sapiens, modern man, the end of the line. He differs from modern man only as existing races differ from each other. Henry Fairfield Osburn speaks of both the Neanderthal and the Cro-Magnon men. Everything is known about the Neanderthal man, his frame, his head form, his industries, his ceremonial burial of the dead, and his belief in future existence. Nearer still is the Cro-Magnon man who is said to have lived about thirty thousand years ago; our equal if not our superior in intelligence. There is every reason to believe that

the Cro-Magnon race could compete in the art schools with any type of the animal sculptors and painters of our day, and judging from the size and form of the brain of the Cro-Magnon youth, he probably could enter any branch of intellectual life of today on equal if not superior terms. The Cro-Magnon man is not a transitional type.¹²²

It seems that man is to be blessed with the "proofs" of evolution as long as plaster of paris holds out! The proof part depends upon something that was never seen in earth, land, sea, or sky, but which exists in the subjective creations of the mind of him who preconceives the "truth" of evolution.¹²³

The Missing Link is the great desire of evolution, for the evolutionist indignantly disclaims the present apes or monkeys as ancestors. He tells us the connecting link was a creature superior to these, but of which he is unable to show any specimen. It is purely mythical. There are the remains of millions of animals reaching through all the ages, why is this particular specimen wanting?¹²⁴

Evolution delights to compare savage peoples alternately with present civilized races and with the brute. Professor Conn says, "There is a greater difference between a Newton and a Hottentot than between the hottentot and the orangutan." He fails to notice, or state, that the first is a difference of degree only and the latter a difference of kind. It would be possible to develop a hottentot into a philosopher, but no attempt is ever dreamed of, to change an orangutan into a hottentot. On the other hand, the lowest savages have under culture shown their human inheritance of faculties beyond the brute. Two pigmies taken to Italy learned to speak Italian with fluency in two years. They showed themselves superior to many

European children, and one became proficient in music. The skill of this race with poisoned arrows, pits for game, and cultivation of various kinds is well known.

The savage races show the opposition of evolution. They are races in ruins. Max Mueller says,

What do we know of savage tribes beyond the last chapter in their history? They may have passed through ever so many vicissitudes, and what we consider as primitive may be for all we know a relapse into savagery or corruption of what was something more rational and intelligible in former ages.¹²⁵

This estimate of this great scholar is attested by facts. Where to-day is the Hindu race that could build the Taj Mahal? What Greek race today could reproduce the architecture or statuary of their ancestors? The ruins of all eastern and many western lands point to fallen races as well as ruined structures. The world's history is that of the fall of great nations such as Egypt, Babylonia, Greece, Rome, in all of which are examples of architecture and peoples alike in sad decay.¹²⁶

For the wrath of God is revealed from heaven against all ungodliness and unrighteousness of men, who hold the truth in unrighteousness; Because that which may be known of God is manifest in them; for God hath shewed it to them. For the invisible things of him from the creation of the world are clearly seen, being understood by the things that are made, even his eternal power and Godhead; so that they are without excuse: Because that, when they knew God, they glorified him not as God, neither were thankful; but became vain in their imaginations, and their foolish heart was darkened. Professing themselves to be wise, they became fools And changed the glory of the uncorruptible God into an image made like to corruptible man, and to birds, and fourfooted beasts, and creeping things. Wherefore God also gave them up to uncleanness through the lusts of their own hearts, to dishonour

their own bodies between themselves; Who changed the truth of God into a lie, and worshipped and served the creature more than the Creator, who is blessed for ever. Amen. For this cause God gave them up unto vile affections; for even their women did change the natural use into that which is against nature; And likewise also the men, leaving the natural use of the woman, burned in their lust one toward another; men with men working that which is unseemly, and receiving in themselves that recompence of their error which was meet. And even as they did not like to retain God in their knowledge, God gave them over to a reprobate mind, to do those things which are not convenient; Being filled with all unrighteousness, fornication, wickedness, covetousness, maliciousness; full of envy, murder, debate, deceit, malignity; whisperers, Backbiters, haters of God, despiteful, proud, boasters, inventors of evil things, disobedient to parents, Without understanding, covenantbreakers, without natural affection, implacable, unmerciful: Who knowing the judgment of God, that they which commit such things are worthy of death, not only do the same, but have pleasure in them that do them. Romans 1:18-32.

F. Immutability

The next problem is that of natural selection, adaptation, and variation, which essentially are referred to as the immutability of species.

It will be admitted at the outset, on all sides, that no unquestionable instance has been observed of one species being derived from another. This is not surprising, even if the mutability of species be granted. It has been only a short time since naturalists

have perceived the importance of the question, and this is far too short a time for changes of importance to occur. But there is even a greater difficulty than this. Whenever it is shown that one form has given rise to another, it is of course, a very simple matter to say that they are simply two forms of the same species. It is, therefore, impossible at present to place the matter beyond question. Two very distinct animals are studied, which are everywhere acknowledged to be distinct species. After careful study and experiment, it is found that one may be converted into the other, and from this time these two species are regarded simply as different forms of one and the same species; and thus the whole force of the proof is lost by this circular argument.¹²⁷

The great field of evolution is the study of species. It was this which mainly occupied Darwin's labors and is the basis of the whole sweeping theory. This suggested man's animal origin and all that follows as to man's history and religion and civilization. So that this is the basal part of evolution. Yet against this fundamental argument, two great charges are made and admitted: first, not a single case of evolution of species is known, and second, no law or force by which such changes could take place has been discovered.¹²⁸

Here then is a fatal defect. The world has been ransacked for evidence, the museums are full of specimens, the secrets of nature have been explored in every land, the minutest creatures discovered and analyzed. There are remains of animals and plants of many kinds thousands of years old, such as the mummied remains from Egypt, and yet not a single instance of the change evolution asserts has ever been known! Yet this change of species is the fundamental argument

of evolution. On this rests its theory of the origin of man and all that flows from that assertion, and this basal assertion is absolutely without an actual instance of fact.

The changes in certain species such as roses, primroses, tomatoes, pigeons and dogs, are not new species, but only varieties, having none of the traits of species, easily intermingling, propagating and readily reverting to their original forms, changes which true species are not susceptible of. Darwin admitted that the continued fertility of these varieties was one of his greatest difficulties. One of the definitions of species is that they will not interbreed and propagate, so that hybrids are sterile. "After its kind" is the primal law of nature, and as Dr. Jesse B. Thomas says, "The stubborn mule still blocks the way of evolution."

Evolution is not a force. There is no power of cause which is known as evolution. The word simply describes the order in which things have been supposed to come. A clear line of distinction must be drawn between cause and order of appearance. There is a certain order in the succession of living things as they come, but what caused that order is the very question at issue. The Duke of Argyll warns against confusing these when he says, "Evolution puts forward a visible order of phenomena as a complete and all sufficient account of its own origin and cause."

The absence of an agreed cause is admitted by evolutionists. Huxley says, "The great need of evolution is a theory of derivation." Darwin admits, "Our ignorance of the laws of derivation is profound." "The laws governing inheritance are for the most part unknown. No two scientists are agreed as to what is the cause of the supposed

changes of species."¹²⁹

G. Theories of Nature in Opposition to Immutability

A theory to be proven must meet the facts and account for them. The theory in question fails lamentably in this. There are countless facts not only unaccounted for but diametrically opposed to it and antagonizing it. Some of these are:

1. Degeneration in nature. Nature shows a constant tendency downward. Professor E. D. Cape, an eminent evolutionist, writes: "The retrogradation in nature is as well or nearly as well established as evolution." The wild varieties of plants and animals are far inferior to the cultivated kinds. The older species are far superior to the present. The saber-toothed tiger is far superior to the present animal. So also is the mammoth as compared with the elephant. Plants show degeneration in colors. The order of superiority is from yellow, the lowest, to white, pink, red, purple, and blue, the highest. When they drop from blue to yellow, it is degeneration. Some now having green flowers once had other colored blossoms. Progress is not seen to be upward in the flowers. So also parasitism is degeneration both in plants and animals. The course of nature is not, and it has not been, a constant development upward. The scripture statement, "The whole creation groaneth and travaileth in pain," describes accurately the condition of nature. (Romans 8:22.)

2. Continued unchanged species for ages. The crustacea, for example in Lake Tanganyika, Africa, remain as the receding ocean left them ages ago.

3. Species instead of increasing in number have decreased. There were 500 species of Trilobites. They have all disappeared. There were nine hundred species of ammonites; all are gone. Of the four hundred fifty species of nautilus, only three remain. Indeed whole families have become obliterated. All this is antagonistic to evolution.

4. Species continue the same under the most diverse environments. Environment is claimed as a cause of the changes demanded by evolution. But the same species exist in the most diverse regions, that is, mosquitoes, whales, and oaks.

5. Adaption of one species to another. Darwin says that a single case of the adaptation of one species to another would be fatal to his theory. Yet he himself gives the data for hundreds of such adaptations.

6. Complex adjustments of nature. Evolution cannot account for the wonderful complex adjustments we see in nature, such as the mimicry of animals and plants. Everything tells of design and interest and often has the appearance of humor in the creation of these numerous creatures.

7. The mathematical adjustments of nature are as exact as the multiplication table. Illustrations of this are the accuracy of the orbits of the heavenly bodies and the law of gravitation.

8. The structure of living things shows the true principles of architecture. Mr. McLaughlin, a noted Scotch mathematician, tried by mathematical calculation to ascertain the shape of a building which would contain the most room with least material and yet embody the greatest architectural strength in its retaining walls.

After many laborious calculations, he found after he had arrived at a conclusion that the honey bee had long before given the same plan of structure in its cell. The human skull is a true dome, and the spinal column a true pillar. The ribs of the ship are copied from the fish, the yacht from the duck, and its deep fin from the fish.

Evolution pretends to account for every one of these facts by changing changes.

9. The age of the earth. Professor George Frederick Wright, the geologist, tells us that geologic time is not one-hundredth part as long as it was supposed to be fifty years ago, and the popular writers who glibly talk of the antiquity of man are behind the times and ignorant of the new light which as a flood has come from geology.¹³⁰

An objection, which has ever obtained to Darwin's theory, is the fact of the sterility of species, when crossed, or the sterility of the hybrids from a cross between two species. This has ever precluded the idea of the evolution of one species into another.

Since varieties cross readily and their offspring are fertile, this feature of the sterility of hybrids clearly appears to be a fundamental distinction between varieties and species.¹³¹

H. Comparative Anatomy and Rudimentary Organs

The next argument is that from Morphology (Comparative Anatomy).

All animals have much in common, so it is held that all animals must have descended from a common ancestor. The wing of the bird, the leg of the horse, and the arm of a man are builded on the same general

plan. Likenesses of structure, we are told, argue for a common origin.

The facts of the evolutionist in regard to the likenesses are true, but will they not admit another interpretation? There is milk in coconuts, cows, and milkweed, but must we assume the milk came from the same place?

Special creation accounts for the likenesses and also for the differences, for in them we see God's creative design. The facts of comparative anatomy fit the view of special creation far better than they fit the theory of evolution. Why should those who believe the Bible be considered credulous and gullible men when they postulate God, when the evolutionist assumes, conjectures, supposes, theorizes, and blindly postulates literally millions of steps to bridge the gaps between species and to bolster up his corollary theories in which his main thesis involves him? The facts of comparative anatomy vindicate the wisdom of the creator.¹³²

Evolution points to certain features in man which it claims came from his brute ancestry, such as the long hairs in the eyebrow, which they say came from the ape-man, the tips of the ear, and the hair on the forearm which slants from the hand to the elbow. The whole outside ear is also claimed as a relic from the brute and is unnecessary for hearing. So also the five toes, when a solid foot would have been better, although most of us think not. They also point to some evidences of a tail which they say was rubbed off when the ape-man learned to sit down. This, however, many apes do now with no signs of decreasing tails. This is not evolution. Further, these so-called "relics of the brute" are counted as having no use

save to support evolution. The "gill-slits" in the neck of the human embryo are the favorite instance of this kind of fact. Evolutionists say that this proves that man's descent is from the dog and of him from the fish, there being no other use for it. Heads and mouths and eyes also survive, but are not pointed to as evidences of descent, because we can see use for them, while there appears to be no use for the "gill-slits" except to prove evolution. If a use for the "gill-slits" is found the argument of evolution would fall to the ground.

The argument of Huxley as to the rudimentary parts is: "Either these rudiments are of no use, in which case they should have disappeared, or they are of use, in which case they are arguments for teleology."

The human characteristics found in animals form an argument for evolution. We find the animals have memory, love, hatred, jealousy; that they can think and plan, use means and weapons, admire things of beauty, and some even have sports. All of this, so evolution claims, points to genetic connection with man.¹³³

There has not been any instance of the development of a brute or his faculties to any approach to man's faculties. The highest animal is still immeasurably below the lowest and most bestial man, not only in the grade of the faculties that they have in common, but in others which the animal does not possess and cannot acquire. There is a great gulf fixed which they do not pass over.¹³⁴

I. Stratified Rock

The rocks reveal strata lying in reverse order from that which

is demanded by the theory of evolution. There are many places where the "youngest" rocks, dated by the evolutionists' index fossils, lie next to the "oldest" rocks, while the "middle-aged" rocks are missing. There are other places where the rocks thought to be the youngest are lying a mile deep with the presumably older strata on top of them. The case against evolution presents this argument with force. The Bear Grass quarries at Louisville, Kentucky, reveal a middle Silurian coral bed immediately overlaid by another of middle Devonian. In the Alps the Matterhorn is on top of rocks younger than itself! In Scandinavia a zone eighty miles by one thousand one hundred twenty miles was shoved eastward eighty six miles. A section in China five hundred miles long where the rocks were reversed, was discovered. We find the same thing true in the Appalachians, in Scotland, and over twenty thousand square miles of territory in Montana and Alberta. O'Toole compares the "thrust-fault" explanations to save the time value of the fossils to the cycles and epi-cycles of the Ptolemaic astronomers who proved that the sun revolved around the earth! The materialist stands on the dizzy mount of multiplied assumption and chides us for our childlike credulity, for our one small postulate, "In the beginning, God."¹³⁵

Nature possesses none of the idealized integrity and coherence which geology has invested it for the purpose of making it understandable. Rather it is a mighty chaos of scattered and fragmentary fossiliferous formations, whose baffling complexity, discontinuity, and ambiguity tax the ingenuity of the most sagacious interpreters. Transformism is the key to one possible synthesis, which might serve to unify the intricate mass of facts, but it is idle to pretend

that this theory is the unique and necessary corollary of the facts as we find them. The paleontological argument is simply a theoretical construction which presupposes evolution instead of proving it. Its classic pedigrees of the horse, the camel, and the elephant are only credible when we have assumed the "fact" of evolution, and even then, solely upon condition that they claim to approximate, rather than assign the actual ancestry of the animals in question. In paleontology, as in the field of zoology, evolution is not a conclusion, but an interpretation. In palaeontology, otherwise than in the field of genetics, evolution is not amenable to the check of experimental tests because here it deals not with that which is, but that which was.¹³⁶

J. Growth of the Brain in Mammals

Another argument is that concerning the growth of the brain. The brain forms the principal difference between man's body and the brute's. The brain is especially used as proof by the evolutionist. It is the organ of mind. Its size corresponds with the intellectual state of the creature. It is the theory of evolution that there was an increase in the size of the brain in some of the man-apes of that day, although none such is seen now.

Professor Edward Clodd thus describes these supposed brain changes after the ice age:

The changes by which he met these new conditions were in a very small degree physical. They were almost wholly mental. The principal physical change was in the growth of the brain and the expansion of the cran-

ium, giving rise to a less bestial physiognomy and advanced mental power.

How could man adapt himself by increasing the size of his brain? Why should the passing away of the ice age increase the size of the brain? However, he disposes of the whole matter, after arguing through pages of supposition and assumption by stating, "The absence of facts forces us to confine ourselves largely to suggestions and probabilities." But probabilities are not science and we have a right to ask from those claiming to be scientists, actual facts and not guesses, for so great an assertion as the descent of man from the brute.

The capacity of the ape brain is thirty cubic inches, and of the human ninety cubic inches. There is no evidence of change in either the ape or the man. The prehistoric man has as good a head on his shoulders as his modern descendents. Bruner says the most ancient skulls even exceed ours. Dr. Pfaff says the stone age men are equal to the present generation. So if education does not increase the size of man's brain, why should the new tricks of Professor Clodd's ancient "arboreal creature" enlarge that individual's brain two hundred percent? On the other hand, the ape of today and the ape of three thousand years ago as mummied and preserved in Egypt are the same. This big-brained ape of evolution has unaccountably disappeared and even his skull is missing.¹³⁷

K. Embryology

The evolutionists argument from embryology. Embryology is the

study of life before birth. In the nine months between conception and birth the fetus is said to go through the various stages of evolution: the simple few-celled stages, the fish-like, the reptile-like, and the ape-like stages. This is known as the "recapitulation theory". "Ontogeny recapitulates phylogeny." In other words each human has relived the life history of the race and each has recapitulated the evolution of species. "In embryo man lives all lives."¹³⁸

Evolution derives its greatest argument from the study of the embryo. It makes three claims. First, the germ of everything, plant and animal, is the same; neither chemical analysis nor the microscope showing any difference. If therefore, such vast variety could come from origins so alike, why could not all come from a similar origin, the primitive animal which was also such a simple cell? Second, in the growth of the embryo it recapitulates the ancestral history of that particular organism. Third, all this when compared with the geologic record, and the present orders of living things as classified, presents the full succession of the forms of life, the one supplying what the other lacks.

1. The claim that all germs of all living things are alike is not true. The resemblance is only superficial. Protoplasm, of which the germ is composed, differs and is not homogeneous material. That which builds the muscles is one kind and that which builds brain and nerves is entirely different. Nor could the germs be alike. For the plant breathes carbon, the animal oxygen. The one oxidizes, the other deoxidizes. There are still greater and deeper differences.

Tyndall says that under the most homogeneous material there lie structural energies of such complexity that we must question

whether we have the mental elements with which to grapple with them. The most trained and the most disciplined imagination retires in bewilderment from the problem. In that realm, the wonders of creation are wrought out. Here is determined the germ and afterward the complete organization, so that these cells or germs which appear so alike, contain each in itself the entire plant and life of the coming creature, to the color of a feather, the trick of a hunting dog, and the smile and dimples of a child.

2. The second claim is that the course of each embryo traverses its ancestral history. It is not nearly so definitely made as years ago. Professor Thomson writes, "Recapitulation is due to no dead hands of the past but to physiological conditions which we are unable to discover." He also says that the young mammal was never like a worm, a fish, or a reptile. It was the most like the young of these in their various stages. So far from the course of all living alike, Baer says he can tell the difference between an embryo of the common fowl and duck on the second day. So far this claim holds good, it forms an argument against evolution. For here is a goal or ideal to which all things strive. This is intention, and plan and purpose, all of which is opposed to the main idea of evolution. It is in line with creation.

3. The culminating argument for evolution is given by arranging in ascending classification the geologic orders of life which we have seen do not appear as evolution demands, and placing alongside of these the classification of present animals which is not agreed upon and is as diverse as the writers themselves, and then laying alongside of these two artificial arrangements, the embryonic recit-

al which is now doubted and is often false to the past history, and pointing to the three-fold combination. The gaps geology shows are thus filled by present forms and what both lack, by the embryonic recital.

What are seen in these three facts are three marks of personal intelligence. In embryonic growth is seen the plan of production. In the coming of the fossil creatures is seen the progress of the plan in historical appearance. In the present display of nature is seen the ultimate purpose of the whole. It all forms one great consistent plan and bears all the marks of personal and creative work.¹³⁹

L. Blood Tests

Blood contains two definite and distinct parts, one solid and the other liquid. The solid portion is composed of small round protoplasmic masses, called cells, red and white. The red cells derive their color from the contained haemoglobin, a chemical having a remarkable affinity for oxygen which it snatches at every opportunity from the oxygen-filled lungs, the air station through which all dark carbonated venous blood must pass. Human blood is made up of rather more than one third to one half its weight of corpuscles or cells. It contains from twenty to twenty five percent of solids. The liquid part of the blood is named plasma, and this, by clotting, is broken up into serum and a substance called fibrin; the latter formed from a normal constituent of the plasma, Fibrinogen, which is acted upon by the lime salts of the blood in the presence of small cells known

as "platelets" thought to be a product of the clotting change. The platelets break up and release thrombokinase, which combines with another chemical, thrombogen, to form thrombin. Thrombin unites with fibrinogen and fibrin, the final result of clotting, occurs as a fine network of threads which enmesh the cells into a jelly-like mass. This mass falls to the bottom, leaving the serum, clarifying the upper portion of the vessel, or surrounding and suspending the clot which is of somewhat higher specific gravity than is the serum.

Now blood is an ever changing mixture of solids and liquids, of cells and plasma, holding within it from twelve to twenty different chemical substances identical with those found in the soil. These are combined in the most intricate fashion, and are controlled by the most elusive and wonderful force known to mankind as life. Remember that when "blood tests" are made, all the cells with their protoplasm and chemicals are removed; also the plasma is changed by the formation of fibrin, the extraction of which leaves only a liquid known as serum, a remarkable fluid, but vastly different from the original living blood or even plasma.

It is concluded from this data that "blood" is not used when the comparisons are made. The cells are killed. The serum is devoid of the "life principle" that makes man superior to the brute. The comparison would be, therefore, of the liquid media in which the life-principles of the various animals lived. So at best the "blood tests" would be a comparison of the fluid which supports each animal's vital spark and not a comparison of the factors which make the species different.

An examination of Dr. George Nuttall's sixteen thousand tests

reveals confusion rather than an orderly sequence of relationship.

Table C reveals the fact that Old World Monkeys and New World Monkeys are forty-two points separated, but in Table D an impassable gulf of sixty-four degrees yawns between. Table A does not permit Marmosets and Old World Monkeys to come closer together than forty-two points, and Table D increases the distance to sixty-four. In Table E anti-sheep serum was used on horses and other animals. According to one test, horses and sheep are eighty-four degrees removed. In this same table where anti-pig serum was used against horses and sheep, the two latter animals are close brothers, only three points apart. In Table E, also, using the first method, pig and horse seemed to be about the same kind of animal, twenty and sixteen, but in the next method there looms a yawning chasm of eighty-four points. In the one sheep and dogs are widely separated by ninety-three points, while in the other they are identical with thirteen points to their credit.¹⁴⁰

Dr. H. C. Morton shows how one set of tests covering forty-nine reptiles, fourteen amphibians, nineteen fishes, seven crustaceans, one duckbill and two lemurs showed no reaction whatsoever. In another test the anthropoids (chimpanzee and gorilla) gave the same result as the horse, and man's quantitative test was the same as the civet cat and the Madagascan tenric! In the milk tests that of the ass is nearest that of man! What the evolutionist does prove! Man's two nearest relatives are the jackass and the civet cat. One of the first principles of logic is, "That which proves too much doesn't prove anything." The blood test data are so confused no evolutionary conclusions can be drawn.

Human blood is classified into four types, I, II, III, and IV. The red cells of Group I will agglutinate with the serum of Groups II, III, and IV; the cells of Group II will act on Groups

III and IV, while Group III is incompatible with Groups II and IV. Group IV is a universal donor. If the wrong types are used in transfusion, serious and even fatal reactions may follow. But the serum of a horse may be used with perfect safety on a human being. Brown says,

If there is anything in the statement that blood-reaction reveals the measure of kinship, why should one human being thrive on blood, which, if injected into another human being would result in death to the second? Again, why should the blood of a horse introduced into a man's veins, be less harmful than the blood of another human being injected into the same man? Is one of these men, on account of this peculiarity, to be excluded from membership in the human race, while the horse is granted honorable admission? ~~241~~

What proves too much doesn't prove anything.

The blood test argument is that of comparative anatomy over again. The evolutionist has no explanation for the differences of bloods and the likenesses can be explained far better on the ground of special creation, the handiwork of the same master architect.

Summary on blood tests. (1) The life matter of the blood is extracted and the sera are innocuous liquids of salt and water incapable of forming the basis of any true comparisons. (2) Nuttall's sixteen thousand classic tests reveal disordered data. They do not show a graded series of relationship. All that Nuttall claimed for them was a "beginning" along this line. (3) The incompatibility of some types of human blood does not dehumanize any type, neither does the apparent compatibility of man, jackass, and civet cat establish any close relationship. Newman, the high priest of evolution, and his authorities, say, "They (the blood tests) come as near to giv-

ing a definite demonstration of evolution as we are likely to find.¹⁴²

M. Geographical Distribution of Animals

Since the animals of one continent differ in some regards from animals of another, the evolutionist assumes the theory of the transmutation of species.

It is not fair to limit God's creative power so that he would have to make all animals the same in every part of the world. It shows design in creation that God made some animals to thrive in frigid regions and others in warmer locations.¹⁴³

The distribution of plants and animals is another favorite argument of this theory. Certain animals are said to be found only in certain regions, the bison only in North America, the kangaroo only in Australia, the armadillo only in Mexico. Evolution triumphantly asks, "Were they created only in these places?" It is enough to remark that difficulties as to creation do not prove evolution. Evolution says the ancestors of these came from other parts ages ago and by long isolation and environment became what they are.

Facts again are against the theory. Huxley himself says that in the neighborhood of Oxford are animal remains like those of Australia; that Britain was once connected with the continent, and so these animals passed over. The same is true, he says, of the isolated fauna of New Zealand and South America.

This argument might be used against evolution as well as the previous arguments. Two islands in the Pacific, only fifteen miles apart, have the animals of Asia on one and of Australia on the other.

One of the Bermudas has lizards like those of Africa and another like those of America. In fact it is evident that animals and plants have scattered widely.¹⁴⁴

Evolution is not accepted by all scientists and scholars; it is admittedly an unproven theory. It has never been verified and cannot be. Not a single case of evolution has ever been presented, and there is no known cause by which it could take place.¹⁴⁵

N. Summary

In this chapter a vast area of critical thought connected with the theory of evolution has been considered. The testimony of scientists and even evolutionists themselves, admitting that evolution is unproven, has been noted. The fact is also noted that evolution has never been thoroughly proven, and cannot be because the evidence does not bear it out.

What the rocks really reveal, how the "index fossil" system is set up and used, and the presupposition of the evolutionary theory in the setting up of the "index fossil" system, has been shown.

The origin of man has been studied as well as the skulls and other bones that are supposed to be hundreds of millions of years old. The problems and falsity of their evidence has also been shown.

In addition, a study of the problems in evolution and a refutation of the teaching about them has been made. The problems considered include the fields of immutability, theories about nature that work in the opposite of immutability, comparative anatomy and rudimentary organs, stratified rock, the growth of the brain in

mammals, embryology, blood tests, and the geographical distribution of animals.

CHAPTER V

SUMMARY AND CONCLUSION

A. Summary

In this thesis an examination has been made of the theory of Naturalistic Evolution and the Scriptural Doctrine of Creation as set forth in the first two chapters of Genesis.

In chapter two the term "Evolution" was defined and the nature of Evolution discussed. The following matters were taught by Naturalistic Evolutionists: 1. The History of Evolution, though proposed earlier, was first brought into the limelight by Charles Darwin in 1859. Since that time many scientists have accepted the theory and have done extensive work on developing it. 2. The world developed from an original mass of fire and liquid, which slowly cooled, and after millions of years produced the first minute protoplasm. 3. The development of the earth was also very slow, with the surface of the mass of liquid cooling and forming a crust. Many times the crust was broken, moved, and buckled, but with the dawn of life a wonderful process began. 4. The first animals were invertebrate, worms, sponges, and Trilobites which developed into vertebrate creatures. Also insects and chambered animals appeared during this period called the Paleozoic Era. 5. The next Era called the Mesozoic Era produced the great dinosaurs, birds, clams, and bony fish. These same great

creatures also disappeared during this Era. 6. The present or Cenozoic Era gave rise to the first primitive type of animals that are in existence today. The earth itself also became relatively stable, the continents rose and man as he is today came into being. 7. Several problems that are connected with Naturalistic Evolution were also considered. These were the Immutability of Species, Comparative Anatomy and Rudimentary Organs, Paleontology and Paleobotany, Embryology, Blood tests, the Geographical distribution of animals and the development of man.

Chapter three was a consideration of The Scriptural Doctrine of Creation, beginning with the time before the Creation, and then progressing into the three main theories of the beginning. These are: 1. That there was a long period of time between the first two verses of the first chapter of Genesis and the seven creative days were each twenty-four hours. 2. That there was no long period of time between Genesis 1:1 and 1:2, but that the seven creative days were long periods of Geological time. 3. That the creation of the earth was followed immediately by creative days of twenty-four hours each.

This was followed by a discussion of each of the creative days, called by some the "period of reconstruction." Evidence in the rocks is also considered in the light of the seven creative days and the chapter is completed with an account of the creation of man.

Chapter four was an examination of the Methods and Procedures of Naturalistic Evolution, taking into consideration the testimony of evolutionists to the facts that show that the theory of Naturalistic Evolution is unproven and unreliable.

Another matter examined was that of what the rocks actually reveal, when these findings are not pushed into the evolutionists' mold of "fossil indexing".

Several supposed skeletons have been found and are used in an attempt to prove the evolution of man. Along with this the problem of the Immutability of Species was considered including theories of nature that work in opposition to the evolutionary theory.

Comparative anatomy and rudimentary organs were also examined along with the true picture that is gained from a study of stratified rock, the growth of the brain in mammals, embryology, blood tests and the geographical distribution of animals.

B. Conclusion

The following conclusions were reached after careful examination of the evidence presented in this thesis:

1. That the theory of evolution is widely disputed and is nothing more than a theory, because,
 - A. Through the past one hundred years no conclusive facts have been discovered that can prove the theory.
 - B. Most of the arguments used to support the evolutionary theory have not been based on facts but,
 - C. Have almost without exception been pre-conceived ideas into which evolutionists have attempted to make their findings fit. This type of procedure is not scientific.
 - D. Evidence in the earth and nature point toward a degeneration of nature.

- E. Taking all of this into consideration, it is impossible for this writer to accept in any way the theory of Naturalistic Evolution.
2. That the Scriptural account of Creation as found in Genesis is acceptable, because,
- A. It has withstood the theological test of time.
 - B. It has successfully withstood the attack of the scientific world.
 - C. Much of the scientific world admits that the account is not unscientific and is true to every conception of the scientific world.
 - D. The Christian world has found the Genesis account acceptable and claim it as God's Word and revelation.
 - E. Therefore this writer feels that the Scriptural account is scientific and acceptable as the true revelation from God of the creation of the world, animals and man.
3. After examining the three theories of the creation that are most generally held by those claiming the Scriptural account of creation, this writer feels that the first theory appears to be the most tenable of the three because,
- A. True science has strong evidence that the earth is several billion years old, or at least much older than the six thousand years of age that are most often attributed to the earth. Therefore it would seem that there must have been a long period of time between Genesis 1:1 and 1:2.
 - B. There is no evidence that man slowly developed, but

rather suddenly appeared on the earth.

- C. Our present day creatures do not show evidence of evolution.
 - D. There are none of the prehistoric creatures in existence today; only a few of their bones remain.
 - E. Therefore it seems most probable that the earth was in existence long before the creation or reconstruction and that God created a stable world, our present creatures, and man, in six days of twenty-four hours each.
4. After examining Scriptural accounts, it seems a slight possibility that the fall of Satan occurred during the period of time between Genesis 1:1 and 1:2.
5. Considering the fact that none of the strange creatures, whose bones are found all over the world, are in existence today, it would seem a remote possibility that there were pre-Adamite creations that were destroyed along with all vegetable life when Satan fell and the world was thrown into ruin, desolation, and waste.

FOOTNOTES

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