No. 3

IS EVOLUTION TRUE?

The Story of Living Things of Long Ago

By :

W. BELL DAWSON,
M.A., D.Sc., M.Inst.C.E., F.R.S.C.,
Gold Medallist in Geology and the Natural
Science, McGill University; Fellow of the
Royal Society of Canada; Laureate of the
Academy of Sciences, Paris.

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The Story of Living Things of Long Ago

THE story of the world of long ago is a most interesting one; because there were many long ages before any human beings were in the world, when forests of trees grew, and shells lived in the sea or animals walked on the land. We can find out much about all this from the rocks; because many beds of rock are full of shells, and ferns are as beautifully preserved as in a collection of pressed plants; and there are also fish and the bones and teeth of animals, as well as their footprints on the stone. These fossil remains in the rocks have been very carefully studied; and much has been learned as to which things came first, and the different types or classes of creatures that lived at different times.

If we look over all these past ages, in a general way, we do not find that everything went on steadily and continuously from the beginning. There were long ages of quiet, and then some great disturbance or upheaval would take place, when new mountain ranges would be thrown up, and volcanoes break out. In the next quiet time, the plants and animals would be different. For the race of creatures which had the leading place in the age before would die down. and another quite different kind of creature would come upon the scene and hold the ruling place in its turn. These changes during the Geological ages are very like what we see in human history. Some great empire arises, like Egypt of old, which dominates the world for centuries, but its glory fades away; and although there are still Egyptian people, they are no longer a great military power. The countries of Europe have become dominant instead, and the British Empire is now the leading empire in the world. The way that one type of creature has followed another in Geology is not unlike this.

We cannot find a better account in a few words. which tells us of the plant life and the animals of long ago, than what we have in the first chapter of Genesis. From the time that the land first rose out of the waters, we have this order: (1) Plants and trees grew out of the ground: (2) the seas were filled with swarms of creatures, such as shells and corals; (3) there was an age of great monsters, which we call reptiles; the largest now living being the crocodiles; (4) then came the land animals and cattle; (5) and last of all, man. This is the order in any standard work on Geology; and it is the same in the Book of Genesis. We find the account of it in Chapter i. 9-13 and 20-28; and it all happened by the command of God and through His power. All the plants and animals thus came into being from the third to the sixth days of Creation; and these are the days that geologists can best tell us about, from the fossils found in the rock, since the time that any plant life or animal life was in the world. 1 Yet we know that the history of life does not take us nearly back to the beginning of things.

How the Rocks Were Formed.

There is every reason to believe that there was a time when the world was covered by a universal ocean; and that out of this ocean the first land appeared, just as the Bible says. We are probably right also in thinking that there was no life in the world before this; for the account in Genesis does not speak of any, and Geology does not indicate any plants or animals before there was some land, and seas that had shores. So we may take the rise of the land out of the ocean as our starting point.

This was well brought out by Hugh Miller, a pioneer in Geology, writing in 1857. See "The Testimony of the Rocks," page 159.

What this first land was made of, we do not well know; but it was not probably smooth and flat like a sand bank, for we read in the Psalm of Creation that when the land appeared, "the mountains rose, the valleys sank down" (Ps. civ. 8). When the land was pushed up into great ranges of mountains, it would be very much broken, and would begin to wear down rather fast. The rain and snow would wear it down, and mountain torrents would cut into the steep hill-sides. The mud and sand washed down in this way would settle in the sea, along the edge of the continents. This would form layers which afterwards became beds of rock, lying one over another.

There are other ways in which beds would be formed, such as the accumulation of shells in layers, or beds of gravel. There were not many deposits that formed on the land, however; the most important being the beds of coal, which are made up from trees and plants that grew rankly in wide stretches of swampy country. There are also beds of lava as well as ashes from volcanoes, which were often widely spread over the land. But by far the most of the bedded rocks, as we now find them, were deposited or formed in the water. We can understand then that the remains of plants and trees are not so frequently preserved as the sea creatures; because beds were most usually formed in the waters off the shores. It is also plain that the lower beds are older than those that lie above them.

Plants and Trees.

In the world at present we can easily see that there is a wonderful variety in the great realm of Vegetation; from the humble mosses and ferns to the oak and the fruit tree. There are many ways in which these can be divided into groups or classes,

1 See Revised Version, in the margin.

according to the way they grow, or where they grow, such as land plants, water plants and seaweed. But we can best place them in classes by grouping them all according to the seed they have. When we divide vegetation into classes by the character of the seed, we are really following the hint which we find at the beginning of the Bible; for when God first commanded the herbs and fruit trees to grow out of the ground, it is their seed that is specially spoken of (see Gen. i. 11-12). We find also that the groups which we distinguish in this way came into the world in succession during the ages of the past. In following these in their order, we can judge whether it is at all likely that one kind changed into another as the evolutionists say.

Vegetation as a whole can therefore be divided, according to the seed, into three great groups or classes: (1) Those that produce spores, which serve as seed from which they grow. These spores are almost as fine as dust; and they help the plants that have them to spread widely, for they are easily carried in the wind. The mosess and ferns are examples of this group. (2) Those that have naked seeds, such as the pines, spruces and cedars have. (3) Those that have berries or fruits in which their seeds are enclosed; or nuts which also count as fruit. Peaches, apples and currants belong to this group, as well as everything that has flowers. 1

When we go back into the past, by examing the rocks, we find that the first of these groups comes first. There were seaweeds and mosses and ferns that belong to it. But the surprising thing is that instead of being small and humble, the mosses and ferns in those early days grew to be trees. There were forests of trees, large and branching, which were in reality immense club-mosses; a kind now

¹ The classification in three as here given corresponds with the "Cryptogams," and the two subdivisions of the "Phancrogams," the "Gymnosperms" and "Angiosperms."

only a few inches high. Other trees resembled tall straight rushes, or they were like gigantic horsetails. 1 There were even ferns that outclassed themselves by bearing true seed, which none of their tribe in the present world are able to do. 2 This group could hold its head very high in its days; but instead of changing into something better still in its pride, it has sadly come down in the world; and the only ones that have even held their own are the tree ferns, found in some countries. Those of this group which are still living are mostly the poor relations, like the sea-weeds and mosses; and the best among these are the horse-tails, club mosses, and ordinary ferns. So there is nothing that points towards the Evolution of better grades of their kind.

The second group is well represented by the pines. This is a very ancient family which goes a long way back. Yet the fibre of its wood (which has a special structure) is exactly the same now as in those distant ages, and its needles and cones are no better than at the first. We do not find, therefore, that any groups or families comes to an end by turning into something else. There are some to represent them right on to the present day.

We see very clearly the way that a change takes place, when we come to the third group. It includes the flowering plants and the ordinary trees which are most familiar. When this great group came upon the scene, it took the place to a large extent of those that had been before in the swamps and forests. So these higher types of plants and trees did not develop from lower types; they superseded them. The forests now are beeches, maples and oaks, instead of trees with the shape of moss and rushes; and the fruit trees are something quite new, different to anything that was before.

So the way that things went on is quite the opposite of what we would expect to find if Evolution were true. Yet writers who are evolutionists try to make little of differences which are really important; or they point to plants which seem to be half-way between two different kinds, to make Evolution appear probable. But when we go back into Geology, we may find that these all live together; or they did not come in the order that they should, if one had developed from another. Many such things are put into text books in a way that is very unfair, when these books are meant for beginners who do not yet know anything of the subject. For instead of teaching us about plants and trees, or explaining Geology, many school books take Evolution for granted, or even misrepresent purposely to favour it. When we are learning, we need to be well on our guard not to be misled in this way. Botanists, who know the subject fully, and understand how plants began in Geology, find it hard to believe in Evolution; because each new type is so unlike the one before it that they are contrasts and not links in a chain to connect one with another.

Is it not more reasonable to believe what we read in the Bible? For when God said: "Let the earth bring forth grass, the herb . . . and the fruit tree," He also commanded each type of plant and tree to continue "after its kind." All things that grow have been under this law of God from the first, and it is thus a law of nature; so that one kind could not change into another kind.

Living Creatures.

We have spoken of the different ways in which rocks were formed; but they did not go on forming gradually and quietly without any interruption. This

¹ Those referred to are the magnificent "Lepidodendrons" and "Sigillarias," and the "Calamites," of the far-back ages in the Devonian and Carboniferous formations.

² The "Cycadofilices of the Carboniferous, resembling tree ferns. Yet in regard to priority, the coniferae and other gymnosperms with true seed seem to have been quite as early.

is plain enough if we think about it. For the rocks must have been very flat and nearly level at first; and how comes it, then, that so much rock is made of folded beds, like a half-shut concertina, as though it had been crushed together? There must, therefore, have been times of great disturbance. The geologists have studied the various rocks with great care, and in many parts of the world. They find that there have been several very long stretches of quiet time, which were separated by great disturbances or upheavals. Since living creatures have been in the world, there have been three of these great stretches of time; and in these three there were three different types or classes of creatures. which began one after the other. This is so evident that the geological names of the three periods are chosen to show that the character of the life in each of them was different. But for simplicity we may call them the Ancient-time, the Middle-time, and the Newer-time. 1

We can realise how long all this went on, because in each of these stretches of time there were several Ages, which are known as the "Geological Formations." It may not be easy to measure such periods in years, and if we talk of millions of years, we get little meaning from it. So we need not wonder that Moses, when he thought of the great ages of creation, thus spoke: "Before the mountains were brought forth, or ever Thou hadst formed the earth and the world, even from everlasting to everlasting, Thou art God" (Ps. vc. 2). These vast ages in which God formed the world should make us reverence the Creator.

The Ancient-time.—We do not learn, either from the Bible or from Geology, that there was any

1 The Palæozoic, Mesozoic, and Neozoic or Tertiary; recognised in all standard works on Geology. William Smith, who published a Geological map of England in 1815, was the first to correlate the fossils and the age of the rocks.

life in the universal ocean before the land first appeared above it. There would thus be seas with shores, suitable for the creatures; and we read, in the Bible, that God then said: "Let the waters bring forth abundantly the moving creature that hath life" (Gen. i. 20). These sea creatures come first in the account in Genesis, before anything crawled or walked upon the land.

This is just what we find in Geology; and we know definitely that there were multitudes of creatures in the sea, before there were birds or land animals. The first life was in the waters; and in those early seas there were vast swarms of shells and corals, crabs and lobsters, as well as sea worms. Although they are so very old, they are most beautifully preserved in the rocks, with their finest markings perfectly distinct. Now, what were these early shells and crabs like, which in those first ages had the sea to themselves? The shells were in vast variety, and highly developed. The highest grade amongst shells are the nautilus and the cuttle-fish or squid; 1 for these are not sluggish like the sea snails, they are very active, with limbs and bright eyes. These were the aristocracy; and there were more of them in proportion then, than there are in the oceans to-day. For at present, the great majority are the humbler kinds, the periwinkles and whelks, the mussels and clams. It is the same with the crab family; for there are no longer in the world such terrible lobsters as there were then. 2

So in these classes and families of sea creatures there has been no development into higher and better kinds, as Evolution teaches us to expect. In

¹ These properly belong, with the shells, to the Mollusca. With the nautilus we include the "Orthoceras," which was the same in structure, but straight. It was very abundant. The crabs were mostly "Trilobites," marvellous in their variety.

² This was the "Pterygotus," which it may be allowable to call a lobster. It was six feet long.

reality, these creatures are no longer so highly developed or in such wonderful variety as they were then. The lobsters to-day have no better claws than they had at first. We may say that they have not been able to make the least improvement on what the Creator gave them to begin with. They had the type of eye which is called "multiple," such as the house-fly has; and it is well preserved in fossils. This eye is exactly the same in its structure, among modern crabs and insects, as it was in those remote times. Why, then, has there been no improvement in all these long ages? The only answer is, it was perfect from the beginning; perfectly suited to the creatures that use it.

A quite different kind of creature appeared before the close of the first great stretch of time; that is, the Ancient-time (or Palæozoic). The fishes came to be; and they could not have been the descendants of the others. For the fish are just the opposite in the way that they are made, and the way they swim about. The shells and the crabs are somewhat alike, because their bodies are supported by an outside shell which protects them; but the body of a fish is supported from inside, by the backbone within it. Their parts and organs were also very different. For even the sea snails have a kind of foot to crawl with, but the fish have no feet. What was there in the world, then, that fish could have "developed" from, as the evolutionists wish us to suppose?

This Ancient-time was on the whole a period in which the world was quiet; and though the land had sometimes risen higher or settled down, there had been singularly few eruptions or volcanoes. But when these ancient ages came to a close, there were great disturbances on an almost world-wide scale; and new ranges of mountains were thrust up. This happened in Central Europe and in Spain; and in North America, a line of mountains arose along

the eastern side and another near the western side. One of these ranges (the Appalachians) was as high as the Alps when it was first formed. The ending of the Ancient-time is thus described by a geologist: "The geographical revolution which closed the Palæozoic era was accompanied by the most profound and far-reaching changes which have ever occurred in the recorded history of life, after which we find ourselves in a new world." 1

The Middle-time.—Yet this revolution in the geography was less important than the change in the animal life. For we now enter the Middle-time (or Mesozoic), which is the age of reptiles like the crocodiles and lizards. But we must not think this a small thing, as though some few lizards began to creep about; because in those days, the reptiles were the lords of creation. For they swam in the sea, they walked on the land, and they flew in the air. Those that flew had wings of skin like a bat, not bird's wings made of feathers; and instead of a beak. they had jaws with dreadful teeth. 2 They were indeed almost like the dragons of the legends. So the reptiles in those days were masters of the land. the sea, and the air. One kind of swimming menster, like a crocodile, but much bigger, had the largest eyes that ever were in the world, before or since. 3 They were so large that the eye-ball had to be supported by plates of bone, to keep its round shape.

So this was indeed a new world; very different from the time when there were only sea creatures and fish. These reptiles seem to be specially mentioned in the Bible; and it is said of them and of the birds that they were "created," to make it plain they were something quite new. For we read: "God

^{1 &}quot;An Introduction to Geology," page 648; by Dr. W. B. Scott, Professor of Geology, Princetown University, U.S.A.

The "Pterodactyls," or flying lizards; some of them as much as twenty feet across their wings.

³ The "Ichthyosaurus."

created great whales" or sea-monsters, "and every winged fowl after its kind" (Gen. i. 20-21, and R.V.). The Bible proves to be right also when it speaks of birds just at this time. For the true birds, with wings made of feathers, have their beginning in this Age of Reptiles. Both the reptiles and the birds were very different from anything before them, in the way they are made; for they had lungs instead of gills, and eyes that could see in the air.

There are some earlier air-breathing creatures in the age before this, near the end of the Palæozoic; some creatures like huge frogs, as well as insects, which breathe air. We thus find sometimes in Geology, an animal or a plant of an advanced type that seems to appear too soon, before the age to which it belongs. This looks as though God wished to show us that He did not need to wait until this creature had time "to develop itself" from some other which was before it; He could create a new kind when He pleased.

Yet the evolutionists think it too much to believe that God created these reptiles and the birds, as the Word of God tells us. They hold that it was not necessary for them to be created, because they could have developed "naturally." So they have to suppose that the reptiles descended from fish; for they are alike so far that they both have a backbone. But we ask: Is it really "natural" for one kind of creature to turn into another? A plain law of nature is that each thing continues after its kind; and no person in the present world has been able to find a way to alter this law, either for plants or animals. 1 If things changed as the evolutionists say, there must have been a long line of changes; for we must suppose that a sea snail turned into a fish, the fish became a crocodile with legs, and the crocodile or

some other reptile developed into a bird. There are many questions impossible to answer if they want to prove that such things happened.

But the day of the reptiles in which they had dominated the world came to an end. Those with the heaviest armour that nothing could hurt, and the flying ones which could attack from the air and escape so swiftly, have all died out. There are no longer in the world such terrible teeth or such large eyes as they had. Why has this come about? The evolutionists say that creatures improve because the fittest can fight their way up, and the weaker ones go down. But no creatures that ever lived were so "fit" as these wonderful reptiles that held command of sea and air. Yet the mighty and valiant have disappeared, and those now living are only lizards. and crocodiles which are small in comparison, and of fewer kinds also. For the reptiles have been replaced by another race of creatures of a different class altogether, that we come to next.

The Newer-time.—Towards the close of the Middle-time there were gradual upheavals in some regions, and a time of great mountain-making in others, notably in America. Along the western coast of America, from the Arctic ocean to Mexico, a great chain of mountains arose; and this was accompanied by vast outbreaks of volcanoes. After these changes, which were of world-wide extent, the third great stretch of time began (the Neozoic or Tertiary). We then find a renewed world, with a new race of creatures in it, called the Mammals. This is a wide name for all the "ordinary" animals with which we are most familiar; the dogs and cats, sheep and cattle, as well as many wild animals.

Up to the time that this new era began, all the creatures laid eggs; the shells and fish, the insects and reptiles and birds. But the animals of the new

¹ All artificial varieties come within the limit of the species; and the species is limited by the capacity of inter-breeding. Beyond this, there is sterility.

¹ See "Geology," by Dr. W. B. Scott; pages 711-713.

era bring forth their young alive. When a creature hatches from an egg, it can usually take care of itself at once, the way chickens do. But the young of the mammals need more care; and they also need milk when they are little. So all the mammals have milk for their young ones. They are very different from any land animals that were before them in other ways also. Their heart is not the same as a reptile has, and their blood circulates differently, so that they are warm-blooded, instead of having blood that we call cold.

The great change at this time came about because the reptiles died down or were destroyed in the great changes and upheavals, till there were few kinds left; and the mammals took possession of the earth instead of them. There were also very grand and powerful ones among these at first, larger than any elephant now living. How, then, did these new creatures come to be? What the Bible tells us is that they came into being by the command of God, when He said: "Let the earth bring forth the living creature after his kind, cattle, and creeping thing, and beast of the earth" (Gen. i. 24). We find also in Genesis that this comes exactly in its right place before men are spoken of; for this great class of animals lived for several long ages during the Tertiary period, before there were any human beings in the world.

The evolutionists do not wish to believe that it was necessary for God to create these new creatures. They tell us that the mammals "developed" from other animals that were before them. But they have no easy task to find anything in the rocks to prove what they say. For what we can really learn from the fossils is summed up by Joseph Le Conte, the geologist, in these words: "The evidence of Geology to-day is that species seem to come into existence suddenly and in full perfection, remain substantially unchanged during the term of their existence, and

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pass away in full perfection. Other species take their places apparently by substitution, not by transmutation." This is just what the Bible puts before us in a more simple way; for in the Psalm of Creation we read how God set aside one race of creatures and brought in another in their place: "Thou takest away their breath, they die, and return to their dust. Thou sendest forth Thy spirit, they are created: and Thou renewest the face of the earth" (Ps. civ. 29-30).

A General View.

If we now look back over the three great stretches of time while living creatures have been in the world, we see in general that there is a sequence or succession of one class or type of creatures after another. It is like a procession, in which there are different companies. But there are some things that we should specially notice about it all.

- (1) Different classes of creatures have come into the world in succession; yet in each class there are some which still live in the world to-day. There are shells, and reptiles, and birds, and so on, which now live in the sea and on land; although each of these began at a different era in the past.
- (2) We find that in each class of creatures there were better and larger ones long ago, as well as a greater variety, than there are now. As we have seen, it is the humbler kinds in each class which form the great majority in the world at present.
- (3) In the succession of life in the past, there are thus two things which are contrary to what we would expect if Evolution were true: First, there is no group or class of creatures which has disappeared entirely by turning into something else; nor again, is there any group or class which is better and more advanced at present than it once was. (The mol-

lusca, the crabs, the frog family, the reptiles, the birds, the mammals, and other groups, were all superior at some time in the past, to any in these classes which are now living. This is quite clear, and cannot be disputed.)

(4) There is nothing to show that one class of creatures turned into another; but the new company took the place of those before them, as the leaders and rulers of the world. To put it in two words, it has been replacement rather than development.

This is something like what we find among men. Some white men go into a country of uncivilised natives; and they come to control them and rule over them. This happened on a large scale in North America, where the white men have displaced and replaced the native Indians; though some Indians still continue to live among them.

All the creatures of the ancient world, the fossil plants and animals, can be seen in museums; and a famous expert in the British Museum, Dr. Etheridge, made this remark: "This museum is full of proofs of the utter falsity of these views (of the evolutionists)." At Montreal there is an extensive museum belonging to McGill University. It contains a fine collection of fossils to illustrate all the ages of geology, as well as shells, fishes, birds and animals. These were largely gathered by Sir William Dawson, who began it all; and he placed at the door this inscription: "How manifold are Thy works, O Lord! All of them in wisdom Thou hast made.

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