

GENE STRATTON-PORTER



THE BIRDS
OF THE BIBLE

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The birds of the bible, G. Stratton-Porter
Jazzybee Verlag Jürgen Beck
86450 Altenmünster, Loschberg 9
Deutschland

ISBN: 9783849648657

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CHAPTER I - THE TIME

IN order to appreciate clearly what Moses recorded in history, what Solomon said in his wisdom, what David sang in ecstasy, and what Job cried out in his agony, concerning the birds, it is necessary first to become familiar with the time in the world's history in which these men lived, and the country which was their home. The books of Moses come first, and they contain references to more birds than the writings of any of the other compilers of the Bible.

Although a Hebrew, Moses was reared and educated in the court of an Egyptian king, and so had access to all the culture that could be afforded by Egypt, then in almost as advanced a state of civilization as it is to-day. At manhood Moses understood the best methods of agriculture, was skilled in stone-cutting, and almost every manual occupation of his time. He was a remarkable diplomat, a great teacher, a born leader of men, and a soldier.

From his elevation he saw with clearness of vision how bitter was the bondage in which his people, the Hebrews, were held by the Egyptians. In describing it he wrote, "And they made their lives bitter with hard service, in mortar and in brick, and in all manner of service in the field, all their service wherein they made them serve with rigor." No wonder the Hebrews since have not cared for manual labor!

So in his intimate position at court, Moses began to intercede with the king to be allowed to lead away the Israelites to new, unclaimed territory and found a nation. But slaves are not easily given up, as witness our own Civil War. At last, after Egypt had known more suffering than she ever inflicted upon the Hebrews, Moses was allowed to start with the Children of Israel on the long, indirect route

to the Promised Land. After forty years of wandering the spot was located, and the Hebrews began making homes for their families and regulations for their government.

In considering what Moses had to say of the birds, and those he mentioned in the course of compiling laws, two things must be taken into consideration. First, the people of whom he was the mental and moral guide long had been slaves, at hard manual labor. They neither had time nor liberty for study and personal improvement. They were like children, wondering, questioning, doubting, but very ignorant. Any law Moses laid down for them to follow, or any history he wrote for their education, had of necessity to be plain, simple, and minute as to detail; not what he, reared with all the opportunities of the king's court, knew of science or past ages, but what they could comprehend.

Taking this foundation fact into consideration, I do not see how the greatest scientist to-day, if he were placed in precisely the same circumstances, could write a clearer, truer, history of creation for a people of mental condition similar to the Hebrews at that time, than the accounts of the beginning of the earth as recorded by Moses.

Moses lived fourteen hundred years before the birth of Christ, and so, as the great law-giver reckoned time, he placed the beginning of the world about three thousand years before his age. At the rate of development from his day to ours we know that this estimate was altogether inadequate. Hundreds of thousands of years had elapsed since the earth emerged from chaos; no man could estimate how many; no man can comprehend in these days, much less could he have done so in the time of Moses. But he wanted some sort of basis on which to found his history, and so he said three thousand years. He proved that he himself comprehended that no man could gauge time accurately when said in addressing the Almighty, "For a thousand years in Thy sight are but as yesterday, when it is past, and as a watch in the night."

After the birth of Christ, Peter referred to this in a way which showed that the thought of Moses was very clear to him, and he sought to emphasize it to men of his day, "But, beloved, be not ignorant of this one thing, that one day is with the Lord as a thousand years, and a thousand years as one day." Since no one has been able to number our days accurately, and it takes a thousand of our years to make a day with the Almighty, this allows all the time necessary for the evolution of the earth and the development of plant and animal life. But according to this rate of reckoning time our world is not yet a week old with the Almighty.

Moses said, "God created the heaven and the earth." In these days every one concedes that creation required more time than Moses thought necessary to try to explain to the Children of Israel. Science has many theories concerning creation. Once it was believed that the earth was flat and stationary, and if you went far enough you would fall over the edge. Then it was discovered that the world was round, and revolved and rotated. So scientists were sure that it and all other heavenly bodies were great pieces cast from the sun. Then the theory was formulated that the sun threw off large rings of incandescent gases, which cooled and formed planets. In other words, Jupiter, Mars, Uranus, Saturn, our world, and the great bodies were once "hollow globes abandoned by the sun."

As I write, a new theory has been launched, attended by the usual amount of corroborative figures. This idea is that the sun is not the parent of any planet, but that all heavenly bodies are formed by the meeting of two or more streams of cosmical dust, the meeting of which produces a whirling motion around a center. These coiling streams are the beginnings of planets, which keep on whirling and gathering more dust, and at the same time grow compact by contact with the resisting forces against which they revolve. All this is demonstrated in terms understandable

only to those who have given the subject a lifetime of study, and figured to the last contingency on reams of paper.

Without doubt there is a man yet to be born who will develop a theory even more plausible than any of these, and demonstrate it to the least mathematical proposition. But the more one studies the greater becomes the doubt that any man ever will see light who can convince the people of his time that he has discovered the origin of matter, the process of world formation, and the beginning of life. This is the most fascinating study presented to scientists, but in the end all of them reach a dead stop when they face the origin of matter. No scientist ever has explained it, and so it becomes a great relief to fall back upon Divinity and settle the question casually as did Moses when he said, "God created."

Moses taught that in the beginning the earth was without form and in darkness. All scientists agree with this, and give the reasons, which they have no right to assume, Moses did not know quite as well as they, because he confined his statements to brief outlines, and simplified his outlines to the comprehension of his people. He knew so much else with which scientists agree, no doubt he understood that also. Science teaches that on account of the intense heat which existed in the earth in its first form, and the extreme cold (estimated at Neptune to be near three hundred and sixty-four degrees below Fahrenheit zero) into which the heated mass was plunged, great clouds of steam were lifted, and formed a surrounding body of water, that shut out light and the world was in darkness.

Moses stated that the Almighty ordered that there should be light. Scientists write volumes explaining how, when the mass of water became too heavy, it fell back upon the earth submerging it in a sea which reached almost, if not quite, the boiling point. As the land masses cooled they shrank greatly, and the depressions formed the beds of seas, while the highest points lifted above the water. When the crust

and seas cooled, through untold periods of time, the vapor was not thrown up, and light could penetrate to the earth.

There is a possibility that Moses recognized that this was what had happened, and upon it he based the story of Noah and the ark. Or traditions of such a period in the earth's history may have been handed down by students before his time, or there could have been a great flood as described, that covered all the then known surface of the earth.

Moses said the Almighty commanded the earth to produce after its kind, and the waters to bring forth abundance of life. Science used to teach that carbon, hydrogen, oxygen, nitrogen, phosphorus, and sulphur were all that were required to produce spontaneous life, and that all these elements existed in varying quantities almost everywhere and under various temperature and pressure, thus accounting for differing forms of life.

Now there is a new theory of the origin of life, called "Panspermy." This claims that spontaneous generation is impossible. It asserts as "an immutable law that lifeless matter can not be transformed into living matter without the aid of living substance." So the theory is launched that life is passed from planet to planet by the transference of living germs. Like all such propositions, this one is figured with the most minute mathematical precision. It provides that these life germs shall be so small as to be invisible, of so little weight that they can be pushed across the great airless spaces existing between planets with rays of light, and so hardy that they will survive for centuries in cold as great as that of liquid hydrogen.

One point upon which Moses and all the scientists agree is that animal life originated in the water, and developed there for untold time before it appeared upon the land; and with different environment took on different forms. While these forms were developing in the water, in the warm, steaming, half-light on land great beds of mosses, marsh plants, and gigantic ferns fifty feet in height and with wide-

spreading branches were growing. As the light grew stronger these fibrous growths fell before it, and succeeding ages covered them with upheavals from the waters, washing from the mountains, and the eternal sifting that we poetically call "star dust." At first thought this would seem to form no considerable portion of the earth's surface, but when we remember that from the deck of a vessel sailing the ocean for a thousand miles an average of sixty-three barrels of dust can be swept, we realize that, although imperceptible to us, star dust is a factor in surface formation. Now we are digging these buried growths from where we consider "the bowels of the earth," in a hardened state we call coal, and burning it for fuel, but the leaves and mosses that come to light imprinted or petrified upon it prove that once they were upon the surface.

This to me is the flaw in Panspermy. These first vegetable growths flourished in semi-darkness, while for ages previous animal life was developing in the darkened waters. The earth never had seen a ray of sunlight or moonlight. Thick vapor clouds were all around it. In order that Panspermy may prove true, it must be shown that it was possible for germs borne on rays of light to penetrate this fog and sow the land and water with life. The only explanation for this would seem to be that these germs were caught in the vapor clouds and fell upon the earth in the form of rain.

Now, as we dig up layers of coal, and the slate and rock which go to make the different formations of the earth's crust, we find the petrified remains of these first animals that crept from the waters and the beasts and birds that evolved from them. In the American Museum of Natural History can be seen the "Brontosaurus," a little over fifteen feet tall, and almost sixty-seven feet long; the length of the leg bones, in comparison with the spine, proving that the head, neck, and tail were serpentine. In the British

Museum there is part of the skeleton of the "Archaeopteryx," and in Berlin a complete skeleton. The bird had a tail with twenty long, slender vertebrae, a skull with thirteen teeth above and three below, each set in a separate socket, feet like our birds of to-day, and wings, the third joint of which ended in three-fingered claws much longer than the feet, the feathers clearly outlined, and the specimen near the size of a crow. Our birds have shed their teeth and gradually dropped and contracted their tails, until a queer little muscular appendage, having only a few very small vertebrae, fattish substance to hold the feathers and cover the oil sac, forms the tail. The two muscle and skin covered bones, that we call the third joint, have evolved from the long claws of the wing tip.

Every ancient writer who touched upon natural history proved that he knew of the existence of these toothed and tailed birds and winged serpents. As these creatures existed in the Jurassic Period, lost their tails by the middle Cretaceous, and shed the last tooth by the beginning of the Tertiary, long ages before the appearance of man, it is only reasonable to suppose that our ancestors knew of toothed birds just as we do, by finding petrified skeletons. The fact remains that the ancients knew, for they introduced these species into tradition and mythology, and even incorporated them in straight attempts at the natural history of their own day.

Pliny described an eagle, of which he wrote: "Lady Phaemonae, who was supposed and said to be the daughter of Apollo, hath reported that this eagle is toothed; with her accordeth Boethus likewise." He also wrote in describing the birds of Diomedes: "Toothed they are, and they have eyes as bright and red as fire; otherwise their feathers be all white. They are like unto the white sea mews with a black cop."

In support of the theory of the serpentine origin of birds, Aristotle said, "For they say there are winged serpents in

Ethiopia." That "they say" undoubtedly referred to the statement of Herodotus, who described a serpent similar to our water snake: "Its wings not feathered, but like those of bats."

Every geological formation which is investigated helps to prove these statements concerning the beginning of serpent, bird, beast, and vegetable life. They combine with other facts of nature to prove that the water did "bring forth abundantly" and that the earth yielded "after its kind." If you want to believe the theory of spontaneous life, that is all right. If you prefer the idea of life transference from planet to planet, that is your privilege. If either is the origin of life, God is responsible for it, and He likes to have men develop their brain by studying His creations. The point is that I can conceive no plainer and truer method than that of Moses, in which to picture to an enslaved and superstitious people the story of the beginning of the world.

Again, Moses and his contemporaries in the compilation of the Bible wrote from their personal knowledge and the traditions of their ancestors. They had no authorities to whom to refer, at least they do not mention any, as do the writers of their time in Greece and Italy. Aristotle lived over a thousand years after the time of Moses, and wrote the first preserved records of bird life. He mentioned predecessors, who may have been contemporaneous with Moses; but their work was lost, and as it was done in another country and another language, there was not even a slight chance that Bible writers had any benefit from it. So that the birds mentioned in the Bible, and the history of their habits and characteristics, which is mostly used as the basis of comparisons of bird life with man, form our very earliest records.

Moses first wrote of the birds when he specified those which were not to be used for food, while compiling the laws to govern the Hebrews after they had reached the

Promised Land. As a rule, it is easy to see why he so emphatically declared certain birds an "abomination." There was a good natural history reason, especially as the list stands in the latest and most scholarly translations. Other Bible writers accepted these laws of Moses, and what they had to say of birds was more in the way of comparing the processes of bird life with man. Solomon recorded that he "spake three thousand proverbs, and his songs were one thousand five. And he spake of trees, from the cedar tree that is in Lebanon, even unto the hyssop that springeth out of the wall: he spake also of beasts and of fowl, and of creeping things and of fishes."

Job, in replying to friends who brought him such dubious comfort at the time of his afflictions, continued that poetical strain in which his whole book is couched when he turned to nature for a comparison. He proved that he had learned great lessons all around him, and was capable of speaking of what he learned comprehensively.

But ask now the beasts, and they shall teach thee;
And the fowls of the air, and they shall tell thee;
Or, speak to the earth, and it shall teach thee;
Who knoweth not in all these that the hand of the Lord
hath wrought this?

In whose hand is the soul of every living thing, And the breath of all mankind."

It was Job who indicated that, although chickens were unknown in his time, people were eating the eggs of fowls of some species when he asked:

Can that which hath no savor be eaten without salt?
Or is there any taste in the white of an egg?"

King David, who said of himself, "My tongue is the pen of a ready writer," unhesitatingly declared:

I know all the fowls of the mountains:
And the wild beasts of the field are mine."

It was David who, in writing of the goodness of the Almighty to the Israelites, recorded that

He rained flesh upon them also as dust,
And feathered fowls like as the sand of the sea."

Birds were so plentiful that the Creator enumerated "the fowls of the air" as one of the methods of destruction which should fall upon the Jews: and the son of Sirach wrote in Ecclesiasticus, "As birds flying down he sprinkleth the snow."

People were accustomed to seeing large flocks in migration. The birds of interior Africa came up to Bible lands, and those found there crossed the Mediterranean, each returning when driven by changes of season. Jeremiah proved that people of his time knew the birds, and spoke of them casually, just as we do, by recording that "The stork in the heaven knoweth her appointed times; and the turtle and the crane and the swallow observe the time of their coming."

It must have been the remembrance of myriads of birds, massed in migration, which was in the mind of Isaiah when he wrote that beautiful and poetic line, "As birds flying, so will the Lord of Hosts defend Jerusalem. " He had seen clouds of birds sweeping the night sky to seek the land in which they homed, and he thought that, like them, the Almighty would fly to the defense of the loved city.

But when the people had sinned, and the Creator was provoked to anger, He warned them that He would destroy Judah and Jerusalem, and give the carcasses of the inhabitants to "the fowls of the heaven." In prophesying the doom of Ethiopia, He called upon the birds to take part in its destruction. "For thus hath the Lord said unto me, I will be still, and I will behold in my dwelling place; like clear heat in the sunshine, like a cloud of dew in the heat of harvest, when the blossom is over, and the flower becometh a ripening grape, He shall cut off the sprigs with pruning hooks, and the spreading branches shall He take away and cut down. They shall be left together unto the ravenous birds of the mountains; and the beasts of the earth: and the

ravenous birds shall summer upon them, and the beasts of the earth shall winter upon them." Hosea said, "As for Ephraim, their glory shall fly away like a bird." And because he was painting a picture of the distress which should fall upon the Israelites for their many sins, one naturally thinks of a bird of swift flight, as the swallow.

The origin of the oft-quoted phrase, "A little bird told me," can be found in Ecclesiastes:

"Curse not the king, no, not in thy thought;
And curse not the rich in thy bedchamber:
For a bird of the air shall carry thy voice,
And that which hath wings shall tell the matter."

Jeremiah complained, "Mine heritage is unto me as a speckled bird, the birds around about are against her."

Jesus, in illustration of His devotion to His ministry, was thinking of the birds when He said:

'The foxes have holes
The birds of the air have nests;
But the Son of man hath not where
to lay His head."

Balaam remembered the secure bird homes he had seen among the shelving rocks and on the high mountains when he said to the Kenites:

"Strong is thy dwelling place,
And thou puttest thy nest in a rock."

Job had the picture of the happy home-life of a pair of brooding birds in mind when, in recounting the days of his prosperity, he cried:

Then I said I shall die in my nest,
And I shall multiply my days as the sand."

A proverb in Ecclesiastes contains these lines:

"Birds will resort unto their like;
And truth will return unto them that practice her."

Habakkuk, in reproving the Chaldeans for covetousness, drew on his knowledge of the habits of the birds when he gave the warning, "Woe to him that coveteth an evil

covetousness to his house, that he may set his nest on high."

Throughout the Bible there is constant mention of the practices of snaring and netting birds; some for food, some for sacrifice, and some, undoubtedly, for caged pets, since James wrote that "every kind of beasts, and of birds, and of serpents, and of things in the sea, is tamed, and hath been tamed of mankind." Jeremiah compared the civil state of Judah to "a cage full of birds." And he exhibited a sense of humor when he did it, for, no doubt, Judah did resemble the cage of a dealer in birds, packed with many species, rebellious in confinement, and quarreling over perching-places or food.

The Bible makes it quite evident that even in those early days people so loved the graceful motion and cheery songs of the birds that they constructed rude cages of peeled willow wands and confined beautiful feathered creatures for pets. Job inquired:

Wilt thou play with him as a bird?

Or wilt thou bind him for thy maidens?"

Jeremiah said, "As a cage is full of birds, so are their houses full of deceit." Jesus referred to the sale of sparrows, which seemed to have been a common and constant practice; and it was He who entered the temple and "overthrew the seats of them that sold doves."

Birds were so numerous in those lands in which Bible scenes were enacted that undoubtedly they were much tamer than those who know, which for generations have been pursued with the smoke and explosion of guns. In ancient times they were caught by some sort of lure, or a trap, which did not frighten those escaping and make them so wild. Those methods really seem more humane. Sometimes a struggling bird could break a snare or a net; a gun is usually fatal. I think the very frequent mention of this custom of taking birds in the Bible is due to the fact that there is such a wonderful parallel to be drawn between

a man setting a snare for an unsuspecting bird, to capture it, and offering innocent-appearing lures to entangle people unawares. Over and over, almost every Bible writer made these comparisons.

Isaiah said, "Fear and the pit and the snare are upon thee, O inhabitant of the earth!" David promised, "He shall deliver thee from the snare of the fowler." Solomon, writing of the lure of the Strange Woman, recorded that a man went to her,

" As a bird hasteth to the snare,
And knoweth not it is for his life."

David gave the warning, "Upon the wicked He shall rain snares." But he also made the promise, "He shall deliver thee from the snare of the fowler." In writing a sonnet on the perils of giving surety for the debts of another, Solomon twice made use of this illustration:

My son, if thou art become surety for thy neighbor,
If thou hast stricken thy hands for a stranger,
Thou art snared with the words of thy mouth,
Thou art taken with the words of thy mouth,
Do this now, my son, and deliver thyself,
Seeing thou art come into the hand of thy neighbor;
Go, humble thyself, and importune thy neighbor.
Give not sleep to thine eyes,
Nor slumber to thine eyelids,
Deliver thyself,
As a roe from the hand of the hunter,
And as a bird from the hand of the fowler."

Equally common was the practice of netting not only birds, but animals of great size and strength. That these nets had to be concealed with great care we gather from the wise man who said in Proverbs, "Surely in vain the net is spread in the sight of any bird!" Using this as an illustration which all of his hearers could comprehend, Hosea, in reproving the wicked, said, "Where they go I will spread my net upon them, I will bring them down as the

fowls of heaven." In illustration of the loss of courage of the people, Isaiah said to them:

"Thy sons have fainted,
They lie at the top of all the streets,
As an antelope in a net."

Most of the methods for taking birds and animals at that time were included in the words of Bildad, when he reproved poor, suffering Job on the ash heap for trying to explain and excuse his condition.

"How long will ye lay snares for words?"
"Yea, the light of the wicked shall be put out,
And the spark of his fire shall not shine.
The light shall be dark in his tent,
And his lamp above him shall be put out,
The steps of his strength shall be straightened,
And his own counsel shall cast him down,
For he is cast into a net by his own feet
And he walketh upon the tolls,
A gin shall take him by the heels,
And a snare shall lay hold on him.
A noose is hid for him in the ground,
And a trap for him in the way."

All these methods for capturing birds are easy enough to understand, and to these were added several others of such cruel design that they resulted in wholesale slaughter. There was the decoy method, by which young larks, doves, or quails were taken from the nest, raised by hand, and made very tame. These were then hidden in cages of wands, and when their notes had attracted large numbers of their kind, they were skillfully dropped by arrows of concealed bowmen. Still worse was the custom of taking a wild pigeon or quail, sewing its eyelids together, and binding it in a good location for birds, so that its fluttering and cries would lure large numbers to their death through curiosity.

The birds of the Bible are constantly written of as fowl. This is our translation of a Hebrew root which means "to attack vehemently." In its original use it undoubtedly referred to birds of prey, and not to songsters and game birds. It is very probable that the term began to be applied to birds which were used for food when they first confined them in coops and cages to fatten them, near 600 B. C. Aristotle wrote of "domestic fowls," in contrast with wild birds, so that the distinction was made in his time. But it must be borne in mind that these compilers of the Bible meant any bird, and all birds, when they said "fowl." However, what they wrote, and the connection in which they recorded it, made their meaning so clear, their knowledge of bird life so positive, their conception of bird habits and characteristics so poetical, that with the added knowledge of the centuries lying between their time and ours, no man has surpassed them in drawing wonderful comparisons between the life of birds and human beings.

Of writers of Greece and Italy most nearly contemporaneous with Bible historians, the oldest was Aristophanes, the Grecian satirist, who lived 444 B. C. and wrote the immortal comedy, "The Birds." But as he was simply parodying the extravagance and foolishness of the people, by making the birds found a city, and do the vain and silly things he wished to ridicule humanity for doing, his work has no scientific value. It merely proves that half our birds of to-day are known by the same name they were then, and have the same habits and characteristics.

The father of the history of birds was Aristotle, who lived 400 B. C., and in all probability he knew Aristophanes. He wrote in the days of Zechariah, Haggai, and Malachi. The bulk of his work is highly regarded by scientists, and much, in fact nearly two-thirds of what he recorded, proves good natural history to-day. The remaining third is a queer and quaint commingling of tradition, sayings of augurs and oracles, and sheer imagination. His ideas of the origin of

some species were marvelous, but all that he said of bird life was extremely interesting.

He had a very correct idea of the circulation of the blood of man, and his physiology. He sustained his points by extracts from Synnesis, a physician of Cypress, who came near owing the perpetuity of his name to these quotations; for the remainder of his work was lost. Aristotle also quoted Diogenes of Crete, with whose sayings we are familiar; and Polybus, of the island of Cos, whose work survives him.

What Aristotle had to say of animals is less reliable than his history of man, which is easily explained by the fact that, as a matter of self-preservation, men naturally would investigate themselves first, and find the material for such study most convenient to obtain. Much of his animal history is correct, but the percent, which fails to prove true, is filled with ideas that seem to us so crude as to be wonderful.

My reason for wishing to introduce a few of these superstitions and traditions is to set in sharp contrast the natural history of the Bible and that of pagan writers of Greece and Rome, of the same days, and even centuries later. There is scarcely a bird or a beast mentioned in the Bible, either in description or comparison, that is not so sanely and accurately used that reference might not quite as well apply to our corresponding species of to-day.

But Aristotle wrote that there were "two kinds of lions. One of these has a round body and more curly hair, and is a more cowardly animal. The other is of longer form, has straight hair, and is more courageous." Undoubtedly this described a male and female of the same species. He gravely recorded that "horses delight in meadows and marshes, and drink dirty water; and if it is clean, they first disturb it with their hoofs, and then drink it." Any one who has watered a horse at a stream or river and has seen the animal wade deeper and deeper, thrusting its muzzle

further and further out to avoid the disturbance caused by its feet, knows what to think of this.

He related that sheep produce males or females from "the nature of the water which they drink," and also that "in Antandria there are two rivers, one of which turns the sheep white, the other black; and the Scamander appears to make the sheep yellow, wherefore some people think that Homer called the Scamander the Xanthus." He wrote that "the weasel eats the herb rue before it attacks a serpent, for the smell of this herb is obnoxious to serpents."

His explanation of the rapid increase of mice was that "in a certain part of Persia the female fetus of the mice are found to be pregnant in the uterus of the parent."

His accounts of caterpillars, butterflies, and fish are accurate in parts, because observation of these subjects is easier, yet what he wrote contains many amazing statements. For example, he said that "butterflies are produced from caterpillars; and these originate in the leaves of green plants." "The commencement of life in all other worms, and in all creatures produced from worms, originates in the influence of the sun and wind." "There are several kinds of bees; the best are round, small, and variegated." "They bring the material for wax from the droppings of trees, but the honey falls from the air, principally about the rising of the stars, and when a rainbow rests upon the earth." "We argue that wax is made from flowers, but that the bees do not make the honey, but simply collect that which falls." Most quaint of all: "It is good for bees to have drones among them, for it makes them more industrious." "When the wind is high they carry a stone with them for balance."

There are many quotable things concerning fish, and the birth of eels is interesting, for he said that they "originate in what are called the bowels of the earth, which are found spontaneously in mud and moist earth."

Because migration limited the residence of most birds to a half year in one place, and the free, wild life they lived, they came in for the greatest share of superstition, mystery, and fabrication. In fact, the portion devoted to birds is so remarkable in its surprises that it is a never-ending source of delight to the bird-lover.

He naively wrote that certain birds were "of good color and habit," without in the least indicating what the color and habit was; and again he said that others were "bad." He described one bird as "faulty, both in its color and in its voice." His store of unexpected adjectives in bird-lore is a delight, as witness these detached phrases: "The chlorion is a clever and diligent bird." "The elea has an excellent mode of life." He said of another: "Its colors are beautiful, its mode of life good, and its form elegant;" and again, "It is swift, elegant, liberal, fearless, warlike, and a good omen;" or, "It is ingenious in providing its substance, though otherwise an unfortunate bird." In what manner ingenious, or how unfortunate, we are left to surmise.

He wrote that some people regard the cuckoo as a "changed hawk," and quoted the poet Masseur, "that the bird which lays three eggs hatches but two of them, and brings up but one." He attributed the red rim around the eyes of certain birds to the violence of their emotion at mating time, and declared that the "hawk does not devour the heart of the bird it has killed." He described a bird "as large as a bustard which hides its eggs in the skin of a hare or fox," and said that the bill of an eagle continued to curve as it grew older until the bird died of starvation. He confirmed the story that swans sang; and accounted for the number of partridges by explaining that they build two nests, on one of which the male broods, and the female on the other; and that the male mated with all the young females before they left the nest. If any Bible writer ever produced any natural history similar to this, which is just a few quotations cited at random, I have failed to find it.