

however, I will not omit emphatically to state that the "Probibibel" possesses very great excellences in comparison with all other editions of Luther's Bible. We should deeply lament it, if the Revisers were to suffer themselves to be deterred by the severity, and even acrimony, with which the Proof-bible has been assailed on many sides, from testing the substance of the objections raised, and so far as possible paying regard to them. The removal of the incongruous archaisms would in itself suffice to render the Proof-bible a work of which the universal introduction and recognition were desirable. Notwithstanding, since every fresh revisal of the Bible must deeply stir the minds of believers, we would fain give expression to the urgent wish that the Revisers may persevere for the sake of the kingdom of God, until such time as their labour shall be brought to a completion which shall afford a lasting satisfaction. Unhappily there is reason to fear that the multitude of faults found, the contradictory views expressed in the critiques, and the opposition of the extreme parties, will exert a discouraging, nay deterrent effect upon the Revisers. God grant that this toilsome labour may, nevertheless, bring forth abundant fruit.

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GOLD, BEDOLACH, AND SHOHAM STONE.

A GEOGRAPHICAL AND MINERALOGICAL STUDY OF
GENESIS II., VERSES 10 TO 14.

THE site of Eden and the identification of its rivers have been among the most vexed questions of Biblical geography; and while the most extravagant hypotheses have been put forward with much ability and learning, many of the more

judicious expositors of the Bible have practically given up the question as incapable of solution. It is not the purpose of the writer to review the various theories on this difficult subject, but to indicate a new line of evidence respecting it, based on the known facts as to the geology and physical geography of Western Asia, and more especially on the interesting fragment of ancient mineralogy which forms the heading of this article.

In considering any ancient topographical description, it is necessary to ascertain if possible the standpoint, or assumed standpoint, of the writer with reference to place and time. This is equally important whether we regard these as real or only imaginary. I do not by any means admit that the standpoint of the writer of Genesis ii. is assumed or unreal. On the contrary, the facts to be stated in the sequel tend to confirm our belief in the antiquity and genuineness of the document, as well as in the accuracy of the writer; but the view now stated is independent of these considerations.

With reference then to the geographical position of the writer of the description of Eden in the second chapter of Genesis, it is I think apparent that this is not in Egypt or Palestine, but rather on or near the river Euphrates. This is shown by the manner of his treatment of the four rivers to which he refers. Three of them he describes by ethnical or other characters. The fourth, Euphrates, he merely names, as if no geographical identification was needed. In any topographical description so arranged, it seems fair to assume that the writer might thus define his geographical standpoint and that of his earlier readers.

The position in time assumed by the writer is equally obvious. He is writing of the antediluvian period and of a "garden" or district supposed to have existed in that period, but possibly not existing in his own time. The time of the writer is post-diluvian, but in that early post-

diluvian period referred to in the tenth chapter of Genesis, when the tribes noticed in the description were separating themselves and acquiring distinct territories. Thus we seem to have here a writer who professes to have written at the date referred to in the early genealogy of the sons of Noah in Genesis x., and on or near the Euphrates.

Let us suppose, for the sake of illustration, an old chronicler describing the invasion of Central Britain by the Romans, and remarking that the district is drained principally by four rivers. The first is the Severn, which flows westward toward the country of the West Saxons, where is much valuable tin and copper. The second is the Ouse, which flows eastward into the country of the East Angles, where is much marshy land. The third is the Trent, which flows toward the land of Deira. The fourth is the Thames. Might we not infer, first, that the writer was not contemporary with the Roman Conquest, but with the Saxon Heptarchy, to which his geography refers; and secondly, that his own position was in the south of England in the valley of the Thames. It might of course remain open to question whether the author of the chronicle really lived in the time and place indicated, or was of later date, and merely simulated an earlier date and a special locality. In either case, however, we should have a right to interpret his description in accordance with the indications afforded by himself.

Treating our ancient description in Genesis ii. in this way, we find that the writer professes to be describing a topography of more ancient date, in terms of his own later time, but that he believes that this topography can be ascertained and defined, at least in a general way, by existing physical and ethnical facts. Let us now examine more minutely what he actually says.

(1) The garden was to the eastward of his Euphratean standpoint. It was "eastward in Eden." It has, I know,

been proposed to read the word translated eastward as meaning before or beforehand, but this view is apparently strained, and I believe the general consent of scholars reads it as in both our English versions.

(2) It was in a country or district named "Eden," a word which has usually been held to signify a pleasant or beautiful country; but which Schrader, with reason, prefers to connect with the Chaldean *Idinu*, meaning plain country. In either case we should suppose that some part of the great fertile plain east of the Euphrates is intended, more especially when we connect with it the idea of irrigation, evidently implied in the sequel of the description.¹ It is to be observed, however, that in the antediluvian period this plain may have presented conditions considerably different from those of the time of the writer, and this may account for some of the peculiarities of his statements. We shall see the evidence of this farther on.

(3) It was at or near the confluence of the Euphrates and Tigris, and where these were joined by two other rivers presumably flowing from the east. It has been supposed that the heads of these rivers may be meant; but this seems to be a forced interpretation of the simple and clear topographical sentence, "From thence it was parted and became, or constituted, four heads."

(4) These rivers were known to the writer and his earlier readers, but in so imperfect a way that three of them required descriptive notes for their identification; and he begins with the most distant and least known stream, ending with that so well known as to need no characteristic.

These preliminaries being understood, let us now inquire as to the rivers intended, bearing in mind that they lie to the eastward of the Euphrates and become confluent with it near to each other. We may add that, as another of the rivers is well known and generally admitted to be the

¹ The rivers "watered" the garden.

Hiddekel or Tigris, we have to look for two rivers only, lying eastward of the latter and connected with it and with the Euphrates near their junction. The only rivers in this relation are the Kerkhar, the ancient Choaspes, and the Kuran, the ancient Pasitigris. We must however consider the characters given to the two rivers referred to by our ancient geographer.

The Pison, presumably the most eastern river, and whose name indicates a spreading or overflowing stream, is said to compass or pass through the whole land of Havilah, and to drain a country producing gold, bedolach, and the shoham stone, which must be local products, and probably products of a rocky or metamorphic country near the sources of the river. As to Havilah, there are two tribes designated by this name in the tenth chapter of Genesis. One of these is of Semitic descent, and of the family of Joktan; the other Hamitic, and of the line of Cush. No information is given of the latter in Genesis x., but there is a note respecting the Semitic Havilah which suggests a connexion with the present description. It is said of him and his brethren, that "their dwelling is from Mesha, as thou goest unto Sephar, a mount of the east." Sephar has been generally supposed by Biblical geographers to be a city and seaport in Arabia; but here it is said to be a mountain, and one lying to the east of the primitive abodes of man in Shinar, so that this identification can scarcely be correct. It is more likely to be the mountainous region affording the products we have just been considering, and perhaps connected with that later Sephar from which the Assyrian kings transported Sepharvaim to people the cities of Israel (2 Kings xvii. 24). In any case the reference of the name to Arabia implies a different geographical standpoint from that of the writer, either in the second or the tenth of Genesis, and is therefore not admissible, whatever facts may be afforded by

subsequent history as to Joktanite tribes in Arabia, to which they may have come in the great migrations of the Abrahamic age. Thus the Sephar of Genesis x. may well be those Luristan mountains which are the nearest east of Euphrates, and from which the river Kuran, a large and important stream, celebrated for the purity of its waters and the fertility of its banks, flows into the Shat-el-Arab or united Tigris and Euphrates. The early abodes of Havilah may have been along this river, and the people of this race may have been the first post-diluvian explorers of the mineral riches of these mountains, as their descendants perhaps afterwards were of the mountains of Eastern Arabia. But it will be well, before entering on the discussion of these questions, to inquire respecting the nature of the products referred to.

As to the gold, it is characterised as good. This raises the question of the distinction in the mind of the writer between good and inferior gold. In primitive times gold occurring in large nuggets, and therefore available for being worked by hammering, was more valuable than that in fine scales or dust; and gold in a state of absolute purity was more valuable than that alloyed with other metals. Again, native copper was sometimes regarded and used as an inferior kind of gold. In some one of these respects, or in all of them, the gold of Havilah was believed by the writer to be of superior quality. According to Loftus, gold occurs in the mountains of Luristan, drained by one of the tributaries of the Kuran, but as to its quality I have no information. This is, however, the nearest gold region to the plain of the Lower Euphrates.

Bedolach is rendered *bdellium* in our English versions, but it is scarcely likely that a vegetable product should be classed along with two minerals, and we should therefore be disposed to inquire if some stony or similar substance may not be intended. The word unfortunately occurs only

here and once in the Book of Numbers ; but there are some considerations which aid us in ascertaining its nature. Its etymology indicates something picked out or separated, an indication leading to the idea of small objects obtained by selection from other material.¹ In the Book of Numbers the manna is compared to it, but in a special manner. The "eye," that is the lustre, of the manna is said to be like the "eye" of bedolach. Bedolach must therefore have been well known to the Hebrews of the Exodus as a substance occurring in rounded grains, and having a peculiar lustre. In accordance with these indications, the weight of ancient authority seems to be in favour of the pearl, a view strongly supported with a great weight of references by Bochart. In primitive times the pearl was valued, especially for necklaces ; and as the use of language was not very critical in such matters, and the pearl, though of animal origin, is of stony hardness, it is probable that shell and stone applicable to the manufacture of beads would be bedolach as well as the proper pearl. In point of fact, in the oldest interments known, there are necklaces made of perforated shells and stones, and even of fossils.² Fresh-water pearls and pearly shells are found in many rivers, and the mountainous district already referred to affords various crystalline minerals and pure white gypsum, which might readily be associated with pearls or other material of personal ornament.

The stone shoham our old translators left in its original form without translation, while the Revised Version gives "onyx" in the text and "beryl" in the margin. This uncertainty is not wonderful, since even in the Septuagint, whose translators may be supposed to have known some-

¹ Our own word "bead" is apparently derived in the same way from a root signifying to count.

² In the Museum of Archæology, at Brussels, I have seen a beautiful necklace composed of 150 silicified *Turritella*, which is attributed to the "Mammoth Age," or in other words, to antediluvian times.

thing of the substance intended, it is rendered by five different words in the different places where it occurs. Still the testimony of the Septuagint, when interpreted mineralogically, has a definite significance. In the passage before us it is rendered *lithos prasinos*, prase-like or leek-green stone. In other places it appears as *smaragdos*, which among the Greeks was a general name for green ornamental stones, as emerald, malachite, serpentine, and jade. In two other places it is rendered by beryl, which is a variety of emerald. In the only other places, two in number, in which it occurs, it appears as onyx and sardius. In one of them (Job xxviii. 16) it is associated with the sapphire, which was certainly a blue stone, being compared to the sky, and in the other (Exod. xxxv. 8) the stone referred to in connexion with the priestly garments is evidently the same with that in Exod. xxxv. 27, where the Septuagint has *smaragdos*. The testimony of this ancient version is therefore in favour of some greenish stone, and we should here bear in mind that the names of precious stones were in ancient times based on their colour, independently of their composition. To this we may add that Schrader compares shoham with the Babylonian *Sanitu*, a valuable stone afforded by the mountains east of Babylonia, and supposed to have been of a dark colour. We may further note that an allied word in Arabic denotes a dart or arrow, connecting this stone with the material of weapons. It is also true that stones of greenish colour, as emerald, malachite, jade and turquoise, were held in high estimation in ancient times, and that a certain sacredness was attached to them. In Egypt such stones were sacred to Athor, the mother of men, and a similar superstition has extended into the east of Asia, and even into America. This respect for such stones would seem to be founded on the fact that jade or jadeite, and some allied green minerals, have commended them-

selves to primitive man in every part of the world, from New Zealand to Alaska and Siberia, as the best material for the manufacture of polished implements and weapons, and as the basis of one of the great steps in mechanical discovery in the primeval stone age.¹

We may therefore without much hesitation consider this primitive list of minerals as carrying us back to an early period of eastern civilization, akin to that which in Europe has been termed the age of polished stone, and may read "gold, bedolach, and shoham," as signifying in that old time the native metals, the materials of beads or wampum, and of personal ornament, and the stone most useful for implements and weapons. In other words we may translate the words "gold, wampum, and jadeite," terms which in any primitive state of society would include all that is most precious in the mineral kingdom. We have now before us the question, in what region east of the Euphrates can these precious products be found?

Some information on this subject was obtained by Ainsworth, the geologist of the Euphrates expedition,² but much more full descriptions of the geology of this region have been given by the late William Kennett Loftus, of the Turco-Persian Frontier Commission,³ a man equally distinguished as a geologist and archæologist. According to Loftus, the alluvial and marine plain east of the Tigris is bounded by a tertiary formation of gravel, sandstone, and

¹ The terms jade, nephrite, and jadeite have been applied to several silicates of magnesia, lime, and aluminium, distinguished usually by a more or less green colour derived from protoxide of iron, by a close texture admitting of a fine polish and of a sharp edge, and by considerable hardness and toughness, characters admirably adapting them for the manufacture of weapons and cutting instruments. The more highly coloured and translucent varieties are also well adapted for purposes of ornament. The use of these minerals in primitive times, and among rude peoples, has been almost universal, and in districts where they could not be obtained they have been articles of commerce.

² *Researches in Assyria, etc.*, 1858.

³ *Quarterly Journal of Geological Society*, vol. xi.

marl, containing large deposits of gypsum, which was extensively used by the Assyrians for architectural and ornamental purposes. In the gravels of these deposits are many pebbles, derived from the rocks next to be mentioned, and which might have been used in early times for the making of implements. The gypsiferous series forms low hills, succeeded to the eastward by a great formation of limestone, the nummulitic limestone of the Eocene Period, attaining in some places an elevation of 9,000 feet. Succeeding to these, after the intervention of lower beds referred to the Cretaceous and Palæozoic series, there occur in the mountains of Luristan clay slates and micaceous schists, with crystalline limestone, associated with which are granite and porphyry and various kinds of trap. In the streams traversing this older formation gold is found,¹ and there are precious garnets, beautiful green serpentine, and a hard dark green jade or a green chert. The important point for our present purpose is, that these metamorphic and crystalline rocks which form the highest hills of Eastern Persia, afford the products referred to in Genesis ii., and that this is the nearest district to the Euphrates in which these products occur. Further, the river Kuran, the ancient Pasitigris, originates in these hills, and is the only river of the region that does so, and it empties into the Shat-el-Arab, the stream which arises from the confluence of the Euphrates and Tigris. Thus we are able to find a river answering to the Pison of our old geographer, and which, while flowing from mountains rich in mineral products, is in its lower portion a spreading or overflowing river, watering one of the finest countries in the world, and on the banks of which was situated the city of Susa, the capital of ancient Persia, and the winter palace of its kings, celebrated for its beauty and the fertility of its en-

¹ In the Elwend Mountain, and probably in the head waters of the Diz, a branch of the Kuran.

virons. To the early dwellers in Mesopotamia the valley of the Kuran afforded fertile soil and scenic beauty, and by following it up they would reach the nearest district of metamorphic rocks and mineral riches.¹

If the Pison of our narrative be the Kuran, then the second river, the Gihon, the rushing or rapid river, must be the Kerkhah, the ancient Choaspes, a river of considerable magnitude and importance, though inferior to the Tigris and Euphrates. This stream intervenes between the Kuran and the Tigris, and its head waters do not reach so far into the mountains as those of the former river. This is an important point, as in the ordinary maps of the district the reverse is the case; but on referring to the geological map prepared by Loftus from personal surveys, we find that it is really the Kuran that penetrates the metamorphic country, so that the topographical geology of Genesis is more accurate than that of most of the maps in our modern atlases.² The Gihon is said to compass the whole land of Cush, not an African or Arabian Cush, but that primitive Cush noticed in the tenth chapter of Genesis, and which under Nimrod founded the first Chaldean Empire in the plain of the Euphrates. If the Gihon compassed the Cushite territory, this early empire must have extended across the Tigris nearly to the foot hills of the Persian

¹ I have examined the collections of Loftus, which are in the museum of the Geological Society of London, and which fully bear out his description. The specimens, however, require microscopic examination, as it seems probable that some of those classed as hard green serpentine and green chert are really varieties of jadeite. Loftus says, "If a traveller approach the dominions of the Shah from the Persian Gulf or from lower Mesopotamia, he must cross the vast range of the ancient Zagros, and invariably meet with the part of the section exhibited in Fig. 1" (of his memoirs). This section, showing the rocks and minerals referred to in the text, is that which the earliest explorers would find as they wandered up the Kuran and its tributary the Diz, and which would introduce them to a region of mineral products quite different from anything to be found in the Euphratean plain.

² It is scarcely necessary to say that Loftus, in his explanations, had no special reference to the identification of the rivers of Eden.

mountains; but in this there is nothing improbable. The fact that Cush is said to have had a son named Havilah may, however, have some significance in this connexion. It is also interesting to note that the Kerkhah compassed the land of the Cossai of classical history, and flows through the modern Khuristan.

We thus find, if we place our ancient geographer where he places himself, and suppose that he refers to the Euphrates and the three principal rivers confluent with it near its entrance into the Persian Gulf, we obtain a clear idea of his meaning, and find that whatever the sources of his information respecting the antediluvian Eden, he had correct ideas of the Idinu of his own time, and of its surroundings and inhabitants. According to him, the primitive seat of man was in the south of the Babylonian plain, in an irrigated district of great fertility, and having in its vicinity mountain tracts abounding in such mineral products as were of use to primeval man. It is not my purpose here to vindicate the accuracy of his statements, but I may shortly refer to some questions that may arise concerning them.

It has been objected to the Babylonian site of Eden, that there is evidence that in Pleistocene times the Chaldean plain was under the sea, and that the encroachment of the alluvium on the head of the Persian Gulf is so rapid as to prove that in early historic times the Euphrates and Tigris were separate streams. But this objection neglects the fact that between the Pleistocene submergence of the country, and the modern period, there intervened that continental age in which all Europe and Western Asia were more elevated than at present, and the Babylonian plain must have been higher and less swampy than it now is, while it is probable that the mouths of the Kuran and Kerkhat were better defined and nearer to each other than they now are. It is probable that this time of continental elevation was that of antediluvian

man, and that consequently to which our writer refers. We must, therefore, in order to realize the exact geographical position of Eden, according to Genesis, imagine the shallower parts of the Persian Gulf to be dry land, the Shat-el-Arab to be longer than at present, and the country on its banks dry, though capable of irrigation, and clothed with open woods; while the climate would be more equable than at present. This was undoubtedly its condition in the early human period at the close of the Pleistocene, and must have been known to or imagined by the writer of the early chapters of Genesis. In Haeckel's curious map of the affiliation of mankind¹ he agrees so far with our ancient geographer, but stretches the primitive abode of man still farther to the south, over an imaginary continent of "Lemuria," supposed to be submerged under the Indian Ocean, but of whose existence Wallace had shown that there is no good evidence.

There is a curious biblical connexion between this district, and the earliest history of post-diluvian man. We are told the ark of Noah grounded on the mountains of Ararat, and that immediately after the deluge, the survivors moved southward and westward, and settled themselves in the plain of Shinar. This would be natural if to them Shinar or its vicinity was the site of Eden. Further, this post-diluvian migration from the hills of the north has fixed itself in the traditions of men, as Warren has argued in his ingenious but fanciful book, *Paradise Found*, in which he gives to the fact, contrary to the Bible history, an antediluvian bearing. Lenormant has illustrated this,² and has shown that the Chaldean, Persian, and Indian traditions, of the origin of man in northern mountains are really post-diluvian.

Another important question relates to the ideas of our ancient authority respecting the minerals he mentions.

¹ *Evolution of Man.*

² *Ancient History of the East.*

Did he suppose that these were important to Edenic man, or are his notes respecting them intended merely to identify the river Pison? It would seem likely that the former is the true explanation. Just as he informs us that Eden contained every tree pleasant to the eye and good for fruit, so it would seem that he wishes to inform us that the "precious things of the lasting hills" were also accessible. Man, he tells us, was to dress the garden, and keep it, and even Adam may have required stone tools for this purpose, while there can be little doubt, that the fig leaves and dresses of skin would soon be followed by feminine attempts at ornament. It is further to be observed, that Cain is said to have fled to the east after the murder of his brother, and this would bring him to that mountainous country which contained the mineral treasures referred to, and of which, according to Genesis, his descendants so soon began to make use. Thus there is nothing contradictory in these ancient accounts, but the whole hang together with perfect consistency. They are also consistent with the curious Babylonian traditions, that Noah hid the documents of the antediluvian world at Sippara, a name probably connected with Sephar, and that he himself, or his spirit, still lingered at the mouth of the Euphrates, as if watching the slow retreat of those waters which in his time had overflowed the world.

Finally, the conclusions above reached are not very novel or startling, being near to those of Calvin and Bochart, and of Pressel in more modern times; and while they limit the geographical horizon of our ancient author, and do not imply that he had any information as to rivers so distant as the Oxus and the Indus, they serve to place the whole of the statements respecting early man in harmony with each other and with geographical facts, and to show that the documents embodied in these records are of great antiquity and historically accurate, unless

indeed we prefer to believe that their writer was a consummate master of the art of simulating antiquity, and wonderfully fortunate in anticipating discovery; or on the other hand, that he was supernaturally enlightened as to matters not otherwise known to him.

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THE EPISTLE TO THE COLOSSIANS.

XXVI.

CLOSING MESSAGES.

“Salute the brethren that are in Laodicea, and Nymphas, and the church that is in their house. And when this epistle hath been read among you, cause that it be read also in the church of the Laodiceans; and that ye also read the epistle from Laodicea. And say to Archippus, Take heed to the ministry which thou hast received in the Lord, that thou fulfil it. The salutation of me Paul with mine own hand. Remember my bonds. Grace be with you.”—COL. iv. 15—end (Rev. Ver.).

THERE is a marked love of triplets in these closing messages. There were three of the circumcision who desired to salute the Colossians; and there were three Gentiles whose greetings follow these. Now we have a triple message from the Apostle himself—his greeting to Laodicea, his message as to the interchange of letters with that Church, and his grave, stringent charge to Archippus. Finally, the letter closes with a few hurried words in his own handwriting, which also are threefold, and seem to have been added in extreme haste, and to be compressed to the utmost possible brevity.

I. We shall first look at the threefold greeting and warnings to Laodicea.

In the first part of this triple message we have a glimpse of the Christian life of that city. “Salute the brethren that are in Laodicea.” These are, of course, the whole body of Christians in the neighbouring town, which was a