

has come down to deliver us in them, and so makes them not only bearable, but fertile in eternal consequences. Christ led the way for His own to the rest of the wilderness. What wonder therefore if a heaven lies about us in our sadness and loneliness. Had the apostles not received the assurance of the guidance of their Lord, they could never have accepted His invitation. With Him the wilderness and the solitary place were glad; with Him the desert blossomed as a rose. So every conscious and deliberate retirement from the world, every welcomed discipline, every willingly endured trial shall want neither comfort nor strength, shall become a true Lent, a spring immortal for the human soul.

B. WHITEFORD.

*PHYSICAL AND HISTORICAL PROBABILITIES
RESPECTING THE AUTHORSHIP AND AU-
THORITY OF THE MOSAIC BOOKS.*

IV. ANTEDILUVIANS AND THE DELUGE.

IN the last paper attention was directed to the remarkably clear evidence afforded by the description of Eden as to the antiquity and authorship of the early part of Genesis. Did space permit, this might be confirmed and extended by many details of the succeeding antediluvian history, but we must at present only consider this cursorily, and proceed as rapidly as possible to the narrative of the Deluge, which has many physical relations of the highest importance, and has recently been subjected to much hostile criticism; but is now happily beginning to rid itself of its adversaries.

In the present state of our knowledge, the Palanthropic age of Geology, the earlier part of the Anthropic or so-called Quaternary Period, may be held to correspond with the

Antediluvian age of history, though there are naturally divergences arising from the different points of view and various kinds of material afforded by the record of the earth and that of human history. This earliest human age is separated from the ordinary historic period, according to Genesis, by the Deluge of Noah, and according to Geology by the great post-glacial submergence which marks the division between Palanthropic man with his contemporary animals and the men and animals of the Neanthropic age, and which has recently been so ably illustrated by Prestwich in his memoirs on the *Rubble Drift*, and allied deposits in Europe.¹ From this submergence the continents of the northern hemisphere have only partially arisen, so that they are now smaller in area than in the Palanthropic age, though some of their mountains may be more elevated. The two records agree in assuring us that this submergence was of short duration, and that it destroyed many of the wild animals and the greater part of the men of the period.² When I first wrote on this subject in my volume entitled *Archaia* (1860), it was impossible to affirm with certainty that there were any known remains of antediluvian man; but now the exploration of caverns and other deposits has given us abundant relics of these men and their works, and we know that before the Deluge they had distributed themselves widely over the Eur-Asian continent at least. We cannot here enter into the details of these discoveries, but reference may be made to works cited in the notes. A very short survey of the Antediluvian Age as recorded in Genesis will enable us to show the principal points of contact.

Genesis gives us in the line of Seth only ten antediluvian

¹ *Transactions Royal Society of London*, 1893, p. 903. *Quarterly Journal Geological Society London*, vol. xlviii., p. 326. Also paper read to Victoria Institute, March, 1894.

² I pointed out the geological evidence of the Deluge in *Modern Science in Bible Lands*, Chapter IV., 1888, also in an article in the *Contemporary Review*, 1890.

generations, but these cover at least sixteen centuries and possibly twenty-two, a time amply sufficient for the events which it records, and to permit a very wide dispersion of men over the earth. The Cainite list is shorter, having only seven names. It has been supposed that this is a repetition of part of the other; but as Lenormant has well said, "the resemblance is an assonance not an identity." On our present hypothesis the Cainite list is probably defective, owing to severance of the Cainite stock from the other branch of the human family to which the genealogy probably belongs. Hommel¹ has shown a strong probability that the ten antediluvian kings of Berosus, the Babylonian historian, represent the ten patriarchs of Genesis, so that we have here concurrent Chaldean testimony, while the Horshesu or Children of Horus may be regarded as their representatives in Egypt. The length of the lives of these patriarchs, though far inferior to that assigned to the Chaldean kings, has been made an objection to our record. On the other hand, in the case of a new and vigorous species living in a natural manner, and free as yet from the attacks of epidemic disease, there is nothing impossible in this, and the statement made without comment argues a document of great antiquity. A curious incidental confirmation of it comes from a time much nearer to that of Moses, in the remark attributed to Jacob in his interview with Pharaoh, when he says, "few and evil have been the days of my sojourning," in comparison with that of my fathers, though Jacob's years had already reached 130; so that the editor of Genesis believes Jacob to have been acquainted with these long lives as recorded in the annals of his predecessors.

The key to the whole antediluvian history, after the fall, is the murder of Abel, a sad story of crime and family disruption, which, gilded by the fancy of poets of the later

¹ *Proc. Inst. Bib. Archaeology*, March, 1893.

ages and the inventions of priests, has spread itself over the world. There can now be no doubt that the goddess Ishtar of the Chaldeans is not a mere lunar or star myth, however she may have been emblematised by such things, but a veritable woman and the first mother of men. Probably the oldest literary record of Ishtar is that in the Akkadian legend of the Deluge, in which she is represented as mourning over the destruction of men, and calling them the children she had brought forth. This settles her true primitive character, and agrees with the old Babylonian doctrine stated by Sayce,¹ that Tammuz or Adonis was not her husband but her son, slain by his brother Adar, afterwards fitly the god of war. It is for him that in an old Chaldean hymn she descends to Hades in the vain hope of restoring him from the dead, and it was for him that the Phœnician women continued in later days to weep. Ishtar is Astarte, Artemis, Athor, and a host of later deifications of motherhood, culminating in our own time in that of the Virgin Mary. Her history must have been known to Moses and other well-read scribes of his day, and we may fairly attribute to this the prominence given to the story in its original guise of a family tragedy, deprived of its later surroundings of myth and idolatry. This is the manner of Moses in treating the myths of the heathen.

Cain becomes a fugitive and establishes a separate community, the Beni ha-Elohim of our last article, among whom, on the one hand, arts and inventions flourished, and on the other hand some tribes fell away into a rude and nomadic barbarism. The Sethites, the proper sons of Adam, probably remained in the original seats of man and pursued a quiet agricultural and pastoral life. But a time came when the warlike and lawless tribes of the Cainites invaded the Sethite territory and carried off the daughters of Seth as captives, and hence arose a mixed race from which

¹ *Hibbert Lectures*, 1887.

sprang bold adventurers and physically powerful men, who introduced everywhere a reign of violence and terror. There has been much superficial comment on the so-called "Song of Lamech," recorded in the genealogy of Cain.¹ It is probably connected with the period now referred to in the following manner:—Lamech had captured two Sethite wives, and in doing so resistance had been made, in which he had slain a young man who had previously wounded him. He dreads blood-revenge, and affirms that his crime differs from Cain's, in being of the nature of war rather than of murder, and therefore less criminal. He addresses his song to his wives, probably lest they should betray him to their hostile kinsmen. He has thus the somewhat equivocal credit, as I pointed out many years ago,² of being the first to draw a distinction between homicide in battle and mere murder.

Thus immediately before the flood there were three divisions of humanity, Sethites (Beni ha-Adam), Cainites (Beni ha-Elohim) and Nephilim or metis. It is interesting to note here that in the Post-Glacial or Palanthropic period also, we find in Europe three races,³ that of Truchere, of which only a single example is at present known, representing a medium stature and mild features, and possibly representing the Sethites; that of Canstadt, coarse, robust, and brutal, and representing the lower type of the Cainites; and the gigantic Cro-Magnon race, attaining sometimes a stature of seven feet, with prodigious muscular power, large brains and coarse and massive features. In the Deluge history it is the Sethites that survive, the Cainites and half-breeds perish. So in the transition to the Neanthropic period, it is the Truchere race that survives and becomes the basis of the Iberian and other modern races, the Canstadt and Cro-Magnon types, as races, disappear. So far as our

¹ Genesis iv. 23.

² *Archæia*, 1860.

³ *Quatrefages*, "Hommes Sauvages," etc.

information now extends the parallel is very exact. Thus just as in the case of its geographical information as to Eden, our old document seems to be correct in its archæology, and asserts itself as a history dating from the earliest post-diluvian times.

Another curious note carries with it a similar conclusion. Before the final diluvial catastrophe, we know, on the evidence of geology, that the mild climate of the early human period which had replaced the rigours of the Glacial Age, was beginning to relapse into a colder condition, an effect possibly of partial subsidence of the land already beginning to divert ocean currents and to diminish the radiating surface. Hence the condition of men was becoming less comfortable, and population would become concentrated in the milder regions, while tribes starved out in the north would fight their way southward. This corresponds with that gradual "cursing of the ground," recognised in the saying attributed to the Sethite Lamech, the father of Noah,¹ who hoped that in the time of his son some amelioration would take place.

It thus appears that, as far as yet known to us from geological investigation, the details of the antediluvian world were present to the mind of the writers of Genesis, in a clear, definite and non-mythical manner, which bespeaks an early date and accurate sources of information. Further, they must have been collected and published by one who had exceptional means of access to the earliest records of the ancient Hebrews. All this points to Moses as the probable possessor of the records of Abraham, and the man on whom of all others it was most incumbent to publish these precious portions of ancient literature, in the then existing crisis of the history of his people. Could we enter on the religious aspect of these chronicles, all this

¹ "This same shall comfort us concerning our work and toil of our hands, because of the ground which Jehovah hath cursed" (Gen. v. 29).

would become more apparent, but here we have to do only with their physical and historical relations.

Regarding, as we are justified in doing, the Deluge as an established event in geological history, and as not a local but a very widely extended phenomenon, we may first ask under what aspect it would probably be presented to us in a Mosaic version of the ancient records of the catastrophe. It is evident that on our hypothesis as to the authorship of Genesis, the only human evidence available to the author must have been that of survivors; and they could testify merely to the facts observed in their own locality or such neighbouring regions as might be explored by them after the event. If, as some critics allege, the narrative in Genesis is made up from two sources, there must have been at least two lines of history or tradition transmitted to later times; but unfortunately the evidence of this duplex history is of a very shadowy and uncertain character. If Moses were the editor, he must have had access not only to the records he has handed down, but to the Chaldean accounts similar to those disinterred in our own time, and to the story of the destruction of the early Egyptians by the anger of Ra and that of the continent of Atlantis by submergence; but he no doubt preferred the traditions which came to him from Hebrew sources. In any case, like the Chaldean legend, which professes to have been orally delivered by Hasisadra, the Babylonian Noah, the story as presented in Genesis is given as that of an eye-witness or eye-witnesses.

This is proved by a great number of details of the voyage of the Ark, which could not have been otherwise obtained. I may mention one in particular—the statement that the waters prevailed to the depth of fifteen cubits over the hills. This is obviously the remark of some one who knew that the water-draft of the Ark was about this measure, and so could testify that in the course of the driftage it nowhere

met with a less depth of water. We can easily imagine the importance attached to this fact by men who felt themselves first moving on the waves and then drifted by a powerful current, and who must have dreaded that their unmanageable ship would ground somewhere and go to pieces. Other particulars of this kind are the note of the time when the Ark began to float and was observed to "go" upon the waters, the occurrence of a storm of wind, the ebbing and flowing of the retiring water, and the time intervening between the grounding of the Ark and the general drying up of the soil. This form of the record, while it insures a truthful narrative in so far as human testimony extends, cuts away all those objections which relate to the extent of the Deluge, since the narrator merely gives his personal experience and is not responsible either for causes or universality, except as within his own observation. As it stands, and viewed as individual testimony, the narrative is a marvel of clear observation and transparent truthfulness, and, without any pretensions to science, affords many data for a comprehension of the real nature and causes of the flood, as well as with reference to the date and origin of the history.

Perhaps the most important of these considerations are those relating to the agencies employed in producing the effects observed, more especially as these enable us at once to get rid of the entirely inadequate notion that the Deluge may have been a river inundation, and they also serve to give us some definite ideas of the physical conceptions of man in that remote period. We must however bear in mind that we have before us merely a record of phenomena, not an investigation into causes. The words in the Revised Version of the Bible are given thus:—

"On the same day were all the fountains of the great deep broken up, and the windows of heaven were opened; and the rain was upon the earth forty days and forty nights."

It may be observed in passing that some critics separate this passage into two, referring the two earlier clauses to an Elohist and the last to a Jehovist source. There seems, however, no better warrant for this than the supposition that the third clause is a repetition of the two before it; but this we shall find is impossible. We may therefore take the whole as one continuous statement.

It is scarcely necessary to say that throughout the Old Testament the word deep (*tehom*) is used to denote the sea in its widest and most general sense. In the first chapter of Genesis it is a universal ocean before the origin of the continents. Afterwards it is still the ocean, but now restrained by God's "decree," shut up with "doors," or with "bars,"¹ or, as in Psalm civ :—

"Thou coveredst it (the land) with the deep as with a vesture,
The waters stood above the mountains.
At Thy rebuke they fled,
At the voice of Thy thunder they hasted away :
Ascended the mountains, descended the valleys
To the place which Thou hadst founded for them.
'Thou hast set a bound that they may not pass over,
That they return not again to cover the earth."

It may be remarked here that with all the Bible writers who refer to the subject, the support of the earth above the waters is a precarious thing, depending solely on the will of God and capable of being reversed. This is probably connected both with the creation record and with that of the Deluge.

As to the "fountains" of the great deep, the word used (*mayan*) is not that usually employed for a spring or fountain, but rather for a basin or reservoir. The reference is probably the same with that in Job xxxviii. 16, "Hast thou entered into the springs² of the sea, or hast thou walked

¹ Proverbs viii. 20; Job xxxviii. 8-10.

² *Nebek*, a word used only in this place and translated *pēgē* in the Septuagint.

in the abysses¹ of the deep?" The disruption or breaking up of these fountains or reservoirs can in this connection have no other reference than to the abrupt and violent suspension of that "decree" or the opening of those "bars" and "doors" by which the sea is restrained from asserting its old dominion over the land; and be it noted here that this is the first and leading cause of the Deluge as observed by our narrator, and it accords with the statement that the Ark drifted northward toward the mountains of Armenia, as would be the case if the waters of the Indian Ocean were poured into interior Asia. So much for the first and leading phenomenon of the Deluge.

The second is less easy of explanation. If heaven means the cloud-bearing atmosphere as defined in Genesis i.,² the opening of its hatches or chimneys, for the wind (*arobbah*) does not designate a window in the ordinary sense, but some kind of roof-opening, must refer to an atmospheric phenomenon. On the other hand, there is a passage in Isaiah³ where the word evidently refers to volcanic orifices: "For the windows (chimneys?) from on high are opened and the foundations of the earth do shake." That seismic and volcanic phenomena should accompany such a convulsion as the Deluge would be very natural, and as some of the volcanoes around Lake Van and Mount Ararat have been in eruption in modern times, and, according to Loftus, one of them still emits heated vapour from its crater,⁴ it is not impossible that our narrator may have witnessed such phenomena, adding terror to the desolation of the flood.⁵ There is, however, another phenomenon not

¹ Revised Version, "recesses."

² "And God called the firmament heaven."

³ Isa. xxiv. 18.

⁴ *Journal Geological Society*, vol. xi. p. 314.

⁵ I find a curious discussion of this and other subjects connected with the Deluge in a work by Macfadzean, on the *Parallel Roads of Glenroy*, Menzies, Edinburgh, 1882. Among other things the author suggests that the great beds of unstratified gravel flanking the hills east of the Euphrateo-tigris valley may

unlikely to have been present, which may have attracted his attention—that of the tornado or waterspout. Appearances of this kind seem to be implied in the Chaldæan account, and the strong upward suction of waterspouts might well be represented as the opening of chimneys in the sky.

With regard to the third appearance, the rain of forty days, it is unnecessary to say anything, except that the word employed is that used for the continuous and heavy rain of the rainy season; and that though no doubt a striking and prominent appearance, it was rather an accompaniment of other disturbances than a leading efficient cause of the flood.

I have entered somewhat fully into this part of the discussion, because so much misconception seems to prevail among literary men on the subject, and because it would be impossible to assign either authorship or editorship to a man of the intellectual standing of Moses, were we to attribute to our document such crude and childish views as those connected with it by some of its modern commentators, more especially by those who would restrict it to a local river inundation, an occurrence which must have been too familiar both to the original narrator and to Moses to permit them to connect the annual inundation either of the Euphrates or the Nile with a world-wide catastrophe.

On the other hand, while it is impossible to confound the Deluge with a river inundation, it is quite unnecessary to ascribe to it universality in that absurd sense which would imply an enormous addition to the waters of the globe, sufficient to swamp all the dry land, nor even in that sense which would imply a universal subsidence of the continents or a wholesale elevation of the ocean bed. When the narrator uses such universal terms as “every living thing

be of diluvial origin, in which case they would be equivalents of the “Rubble-drift.”

was destroyed which moved upon the ground," he means universality, first in the sense of what he could see, and secondly in that of the absolute destruction of all land-life within his ken. His personal knowledge, by the terms of the narrative, extended over a territory from the lower Euphrates to the highlands of Armenia. Beyond this the editor gives us no other means of judging than that which we find in his account of the dispersion of post-diluvian men over Western Asia, Southern Europe and Northern Africa, and the inference that these regions were then destitute of human inhabitants; though later we hear of certain mountain tribes in Syria, the Rephaim and others, not actually traceable to any of these lines of migration, but who may have been stragglers in advance of the main colonies, and not recorded. We now know from the evidence of the later deposits of Europe and Asia that the geological submergence corresponding to that recorded in Genesis was much more extensive than the limits deducible from the calm, judicial narrative of the Egyptian savant and prophet.

We have also in the Deluge a typical example of the usual character of the miracles of the Mosaic books. It was an unusual phenomenon produced by natural and physical causes, but under circumstances which show that it occupies a place in the higher sphere of the Divine government of rational beings. The Deluge is the solution of the problem presented by a race of men too far gone in depravity to be reclaimed, and it is predicted to an inspired prophet. In these senses it is miraculous, but in its physical aspect it is a submergence of the land, resembling many that have occurred in earlier ages before man was upon the earth, and differing from them mainly in its comparative brevity. A great agnostic prophet of our time tells us that the sufferings of humanity are to be alleviated by "the resolute facing of the world as it is, when the garment

of make-believe by which pious hands have hidden its uglier features is stripped off." Moses, with a deeper penetration, knows that when men have lost all touch of higher and spiritual realities, and have devoted themselves entirely to the perishing physical "veracities" of the seen and temporal, a time may come when no hands either impious or pious can save them from that utter destruction to which even the unchanging laws of nature may be made helplessly to drive them. I have elsewhere¹ treated of the details of the Deluge, and the superficial character of the objections taken to it. One of these may deserve notice here, because it is connected with facts to which attention has only recently been directed.

The Ark of Noah has been a fertile source of scoffing, and certainly the construction of such a vessel, even though our narrator modestly calls it a box or chest and not a ship, in this differing from his Chaldean *confrères*, seems remarkable at so early a date, though in very ancient times the Akkadian *litterati* did not so regard it. But we have just learned from the inscriptions of King Gudea at Tel-loh that almost immediately after the Deluge men were navigating the Persian Gulf and the Red Sea, and we have known for some time that the Phœnicians, one of the earliest branches of emigration from the Lower Euphrates, launched their barks at once on the Mediterranean. Whether, therefore, Noah was the first navigator or not, the art was not lost by his successors. Nor have we a right to say that the peculiar name of the Ark in the Hebrew record proceeds from ignorance of maritime affairs—a truly remarkable ignorance on the part of a people which had lived in Lower Egypt and on the Coast of the Red Sea, and afterwards was the nearest neighbour of the Phœnicians. The term really marks the primitive age of the document. It is deserving of notice in

¹ "Origin of the World," *Magazine of Christian Literature*, Oct., 1890; *Contemporary Review*, Dec., 1889.

this connection, that Jacob in his death-song speaks of ships in connection with the coast of Canaan (Gen. iv. 9), while in Exodus the mother of Moses calls her little basket of papyrus, in which her child was placed on the river an Ark. It was certainly not a ship or boat; but like Noah's Ark a box or basket coated with bitumen, and on a small scale intended for a similar purpose. I have in the publications already referred to shown that the Ark was a refuge only for selected kinds of animals, not for all the animals in the world; that is, if we take our idea of its inmates from Genesis rather than from a toy "Noah's Ark."

We may safely predict that the biblical history of the antediluvian time and of the Deluge will be more and more valued as knowledge advances, and that it will be more and more clearly seen that they could not have been written or compiled later than the Mosaic age. In the meantime one may be thankful for a record which places those primitive and otherwise prehistoric men, known to us outside of the Bible only by their bones and implements, in rational and spiritual contact with ourselves, and renders their history helpful to us and to our children in these "last days."

J. WM. DAWSON.

MATERIALS FOR THE STUDY OF VARIATION.¹

Any researches which have for their object the advancement of our knowledge concerning the origin of the living inhabitants of the world cannot fail to be of interest to the student of Biblical exegesis. As our theory of creation must, in some degree, affect our view of the relation of God to the universe, it is important to note that with the pro-

¹ *Materials for the Study of Variation, treated with especial regard to Discontinuity in the Origin of Species.* By William Bateson, M.A., Fellow of St John's College, Cambridge. (London, Macmillan, 1894.)