

us all. We therefore conclude that Jephthah and his daughter were kept from doing anything which would disgrace either their religion or their characters in the estimation of the righteous of their day. This belief we shall hold till we are shown that we cannot scripturally hold it.

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### ARTICLE · III.

#### THE GREAT CREVASSE OF THE JORDAN AND OF THE RED SEA.

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IN the Researches of Dr. Robinson a letter is inserted from the "distinguished geologist," Leopold Von Buch, "whose researches have been particularly directed to the phenomena of volcanoes." This letter is, in part, as follows :

"The valley of the Jordan is a fissure, a *crevasse* which extends from Mount Lebanon to the Red Sea without interruption. Such, it seems to me, is the result of your researches, as well as those of M. de Bertou, and of Callien, who nevertheless finds fault with Ritter for having said the same thing. These long fissures, especially frequent among limestone mountains, give the configuration to our continents. If they are very large and deep they afford passage for the primitive mountains, which, for that reason, form *chains* in the direction which the fissure prescribes. We might therefore expect a greater development of the volcanic agents at the bottom of this fissure than upon the heights."<sup>1</sup> To the same effect is also the opinion of the late Dr. Hitchcock: "The valley of the Jordan, extending from the Red Sea to Mount Lebanon, was probably a fissure, along which volcanic agency may have been more or less exerted from time to time."<sup>2</sup>

<sup>1</sup> Vol. ii., p. 606 (1st edition).

<sup>2</sup> Geology of the Globe, p. 51.

“The whole of Syria is cleft from north to south by a straight crevasse of moderate width, but extending, in the southern portion of its centre division to a truly remarkable depth, two thousand six hundred and twenty-five feet below the sea-level. This crevasse, which contains the principal watercourse of the country, is also the most exceptional feature of its geology. Such fissures are not uncommon in limestone formations, but no other is known of such a length and of so extraordinary depth, and so open throughout its greatest extent. It may have been volcanic in its origin, the result of an upheaval from beneath, which has tilted the limestone back on each side, leaving this large split in the strata, the volcanic fire having stopped short at that point in the operation, without intruding any volcanic rocks into the fissure. This idea is supported by the crater-like form of the basins of the Lake of Tiberias and of the Dead Sea (Russegger, pp. 206, 207), and by many other tokens of volcanic action, past and present, which are encountered in and around these lakes, and along the whole extent of the valley.”<sup>1</sup>

“The grand geological feature of Palestine is the central valley or chasm. Hugh Miller has said, ‘the natural boundaries of the geographer are rarely described by straight lines. Whenever these occur the geologist may look for something remarkable’ (Old Red Sandstone, p. 120). No better proof of this could be found than the Jordan valley. It runs in a straight line through the centre of Palestine. Its formation was probably simultaneous with those volcanic agencies that created the eastern and western lava-fields. It is a tremendous rent or fissure, a hundred and fifty miles in length, rending asunder the whole limestone formation from top to bottom. Its extreme depth, from the lips of the fissure to the bed of the Dead Sea, is above four thousand feet, no less than two thousand six hundred and twenty-four of which is beneath the level of the ocean. Such a cleft in the earth’s crust is without a parallel.”<sup>2</sup>

<sup>1</sup> Grove, in Smith’s Biblical Dictionary, article Palestine.

<sup>2</sup> Professor J. L. Porter, in Kitto’s Biblical Cyclopaedia, — Palestine.  
Vol. XXIV. No. 94.

None can intelligently examine this remarkable region of country without a profound conviction that the entire valley of the Jordan from its highest source to the southern extremity of the Dead Sea, is, according to the opinion of these distinguished geologists cited above, a vast crevasse without a parallel. But does it end here? The immense cleft of the Arabah, which runs one hundred miles farther to the Ailanitic Gulf, the eastern arm of the Red Sea, is only a continuation of the same fissure, with the same geological features. Neither is this the end of the crevasse. As the waters of the Lake of Galilee and of the Dead Sea occupy a portion of the bed of this immense chasm, so those of the eastern arm of the Red Sea lie imbedded in a continuation of the same fissure, ninety or one hundred miles farther, where this gulf opens out into the Red Sea, at the southern extremity of the Peninsula of Sinai.

Thus, from the highest source of the Jordan to the Red Sea, a distance of three hundred and fifty miles, we have one uniform continuous chasm in the earth's surface, deep, dreary, desolate, mysterious, presenting throughout the same geological features, and evidently caused by the same convulsions of nature. It is a vast crevasse, without any parallel; a rent of stupendous dimensions in the surface of the earth, which opens a channel for the river Jordan and the bed of the Dead Sea, one hundred and fifty miles; beyond this, one hundred miles in a direct line, the chasm of the Arabah separates the waters of the Dead Sea from the Ailanitic Gulf, which sets back more than one hundred miles from the opening of this crevasse into the Red Sea.

But does this vast rent in the surface of the earth end even at the Red Sea? Or is the valley of this sea itself only a more tremendous expansion and extension of the same fissure, which, for more than a thousand miles, has by this immense chasm sundered from each other the kindred continents of Asia and Africa? We venture with diffidence to propound for the consideration of the learned the theory that these continents were once united by a broad isthmus

from the Straits of Bab-el-Mandeb, at the northwest angle of the Indian Ocean, to the Mediterranean Sea. We respectfully submit, for the consideration of the geologist, the theory that the entire valley of the Red Sea, the Ailanitic Gulf, the Arabah, the Dead Sea, and the Jordan are but continuous parts of one and the same immense fissure or crevasse, opened by some tremendous convulsion, or series of convulsions, from the Indian Ocean to the mountains of Lebanon.

To others better versed in these awful arcana of nature, we submit the inquiry by what particular agency this stupendous rent was opened up through the solid earth the distance of one thousand five hundred miles in length between Asia and Africa, and one hundred miles or more in width. Is this great crevasse the result of a long line of volcanic agencies, whose effects are so impressively manifest from the beginning to the end? The eminent authorities cited above distinctly intimate that this crevasse from Lebanon to the Red Sea, may be the result of "volcanic action." The tokens of such volcanic agency are equally clear and impressive along the whole line of the Red Sea itself; and as conclusively indicate that these tremendous internal agencies may have been alike effective in cleaving the earth asunder along the whole line of this crevasse. In this connection it may be pertinent to notice the indications of volcanic agencies which in various unmistakable forms are scattered along the entire line of this supposed crevasse, without advancing any theory as to the specific agency of volcanoes and earthquakes in producing the great phenomenon under consideration. Whatever may have been the cause, we cannot doubt that at some time, far back in the absorbing periods of the past, unrecorded, unknown, this enormous cleft was opened by some stupendous convulsion of nature, occasioned chiefly or in part by volcanic agencies. With this view, let us note some of the indications of these agencies along the line of the Jordan and of the Red Sea.

This sea itself occupies the bed of an immense longitudinal valley between parallel ranges of volcanic mountains.

Aden, the mart near the strait, is nestled in the crater of an extinct volcano. The islands that line the strait of Bab-el-Mandeb are all volcanic, as is also the adjacent coast, and the entire promontory. Several of the largest islands in the Red Sea, at distant intervals, are of volcanic origin. Niebuhr also describes "a mountain situated in the middle of the sea, said to have been formerly a volcano, and which is probably the burning island placed by Arrian and Ptolemy in these latitudes."

A long line of volcanic mountains runs parallel with the African shore of this sea. In these mountains porphyry and greenstone particularly abound. The adjacent desert in various places is strewn with vast, round basaltic boulders or balls, denominated by the author of *Frost and Fire* "volcanic bombs," which by some terrible volcanic engineery must have been shot out of the earth. This portion of the desert has not been sufficiently explored to indicate accurately its geological characteristics, but so far as is known they are eminently volcanic.

Upon the eastern shore of the sea are found coral reefs, many feet above the sea, in which they must have been formed. Coral also is said by Lieutenant Wellsted "to enter largely into the composition of some of the most elevated hills" on the Arabian side of the sea. At Kahme near Beit el-Fakkih, basaltic columns were found by Niebuhr, like the giants causeway, "so uniformly regular that they might be mistaken for works of art." And he adds: "Piles of the same kind of rocks are found in many other parts of Arabia." On the way from Mocha to Sana, the capital of Yemen, "the rock which first occurs is porphyry, fractured so regularly into columns that the steep cliffs sometimes present the appearance of organ pipes; trap-rocks with basalt occurred, and at Sana the common building stone is lava. Mount Saben, likewise, is an immense mass of trachyte and other volcanic rocks." Ali Bey also in going from Djedda, the port of Mecca, to that city, passed "between some volcanic mountains covered with black lava." This traveller and

Niebuhr both report mines of native sulphur in the same region. Mineral salt is also a production of the country, "still worked near Loheia and several other places." At a place called Jedeida travellers also report seven groups of volcanic hills. At Medina "a layer of volcanic rock also occurs, and on the Hedjaz, the route of pilgrims to Mecca, hot springs are reported "at almost every station."

The entire Sinaitic group presents the most impressive indications of the terrible convulsions by which its labyrinth of mountain heights has been rent and torn since its first upheaval. From the summit of Mount Serbal, as from a watch-tower in high heaven, one looks down upon a perfect sea of mountain ridges, often precipitous, always intensely steep, and culminating in a sharp edge at the height of two, three, or four thousand feet from their base. The entire lines of these mountains is seen to have been rent transversely by clefts from the base to the summit, filled with injections of basaltic rocks, striping the mountain on each side with black bands. The whole assemblage is a perfect ganglion of ridges thrown up in wild confusion, with its strata dislocated, disjointed, dipping in all directions and at every angle from horizontal to perpendicular. The mountains of Sinai form no system, no regular ranges like the Alps, the Appenines, Pyrenees, or the mountains of America.

Jebel Hūmmâm and the hot springs at its base, forty-five miles below Suez, and the hot springs at Tur, near the southern extremity of the western arm of the Red Sea, are significant indications of the fires that are still burning within. On the western shore of the Ailanitic Gulf, nine miles from the southern angle of the peninsula, Burckhardt reports the existence of "volcanic rocks." "For a distance of about two miles the hills presented perpendicular cliffs, formed in half circles, none of them being more than sixty or eighty feet in height; in other places there was an appearance of volcanic craters." The disruptions, faults, and dykes along the mountain heights on the whole line of this gulf, with the frequent occurrence of porphyry and greenstone, and

occasionally of chalk, bear unequivocal evidence of volcanic agency. These disruptions open passes singularly wild, between perpendicular bulwarks of rocks, which frequently compress the passage into a gateway ten and twelve feet in width, leading from the platform of the desert down to the shore of the gulf. Toward the northern extremity of the gulf for several miles, a line of basaltic cliffs advances quite up to the sea, leaving only a narrow pathway for the camel; then jutting into the sea, compelling us to pass them by a toilsome detour around and over their heights. Burckhardt, with his customary accuracy, has noted this geological formation. "We followed a range of black basaltic cliffs, into which the sea has worked several creeks, appearing like so many small lakes with narrow openings toward the sea. They are full of fish and shells."

The indications of similar convulsions again become exceedingly impressive about the base of Mount Hor, at Petra, in the mountains of Edom. In addition to the famous fissure which opens a wild pass from the high plains on the east down to the rocky abyss occupied by the old city itself, one as wild and extensive runs up towards the rock-hewn temple known as ed-Deir, the convent. And an unexplored fissure again breaks down through the mountains several miles to the valley of the Arabah. None can mistake the geological indications of this region. Further north, in the mountains of Edom, fifteen or twenty miles southeast of the Dead Sea, the indications of volcanic agency become more marked. A group of four mountain heights is reported by Burckhardt and by Irby and Mangles, composed entirely of basaltic rocks, lava, and other remains of extinct volcanoes. Similar volcanic indications are found in Wady Ahsy, east of the southern extremity of the Dead Sea, and again at Kerek and on the river Arnon. Above this river, on the shore of the sea, Lieutenant Lynch reports "huge black boulders lying confusedly on the shore, which proved to be trap interspersed with tufa. The whole mountain, from base to summit appeared to be one black mass of scoriae and

lava.”<sup>1</sup> Further north, about the hot springs of Callirrhoe, “veins of gray and black trap cut through the sandstone. Between this point and the plain of the Jordan volcanic eruptions have produced immense flows of basaltic rock, portions of which had been overflowed into the valley of the Jordan. Among other smaller basaltic streams, three were found bordering on the eastern edge of the Dead Sea to the south of the little plain of Zarah.”<sup>2</sup>

A series of hot springs on either side of the Dead Sea still attests the presence of internal fires. In the Wady Ahsy southeast of the sea, in Wady Hamâd, north of Kerek, these springs are found. The hot springs of Callirrohe, further north, discharge into the sea a heated stream twelve feet wide and ten inches deep, rushing on with great velocity. On the western side of the Dead Sea two hot springs are found above Engedi, about six miles apart, one “a copious fountain,” the other discharging “an enormous quantity of hot water into the sea.” South of Engedi, at the distance of two miles, are hot springs on the beach and under the water. Further south, near Um Baghek, is “another hot sulphur spring, which spreads its suffocating odors around.” And again in the fords from the western shore to the promontory of el-Lisan are found hot springs welling up from the bottom of the sea.

At Gerasa, east of the Jordan, and again at Jermuk, southeast of the Sea of Gallilee hot springs occur, the last, ten in number, “fountains of immense size,” and of a high temperature. On the western shore of Gennesaret are the famous hot springs of Tiberias, varying from 136° to 144° of Fahrenheit; after a course of many rods, discharging a stream of hot water into the lake painful to the hand and foot immersed in it. The copious salt and tepid fountains of Tabighah above Khân Minyeh, are also worthy of special consideration in this connection.

“The northern shore of the lake is covered with basalt, lava, and other volcanic productions.” Safed, near the lake,

<sup>1</sup> Expedition to the Dead Sea, p. 369.

<sup>2</sup> Journal of Sacred Literature, July 1865, p. 496.



was entirely destroyed by an earthquake in the year 1837, and many thousands perished in the ruins. Not less than three extinct volcanoes are found in its immediate vicinity. The great fountain, Tel el-Kady, twenty-five miles further north, gushes out from the crater of an extinct volcano. Two or three miles northwest of this fountain the ground for a great distance is strewn with large basaltic boulders, "volcanic bombs," which must at some times have been discharged from the tremendous battery of a volcano. At the termination of this great crevasse near Hasbany are found mines of bitumen, brilliant as the purest obsidian. Trap rocks and a hot spring are also reported in the same vicinity.

The whole of ancient Bashan is volcanic. East of the Jordan above the Sea of Gallilee and the lake Huleh, these volcanic indications are exceedingly impressive. "The phlegmatic fields, and all that can present an idea of volcanic destruction, form but a feeble image of the frightful country through which I passed this day. From the bridge of Jacob to Sassa, the whole ground is composed of nothing but lava, basaltic, and other volcanic productions; all is black, porous, or carious. It was like travelling in the infernal regions.

"Besides these productions which cover the country, either in detached masses or in large strata, the surface of the ground is entirely covered with loose volcanic stones, from three or four inches in circumference to a foot in diameter, all equally black, porous, or carious, as if they had just come out of the craters. But it is particularly at the approaches to Sassa that the traveller meets with groups of crevices and volcanic mounds, of so frightful a size that he is seized with horror, which is increased if he allows his imagination to wander to the period when these masses were hurled forth with violence from the bowels of the earth. The holes and crevices, which are to be met with continually, contain water as black as ink, and almost as fetid. There are evident signs that all this country was formerly filled with volcanoes, for we beheld several small craters in traversing the plain." <sup>1</sup>

<sup>1</sup> Ali Bey's Travels, Vol. ii. pp. 24, 25.

“The molten lava seems to have issued from the earth through innumerable pores, to have spread over the whole plain, and then to have been rent and shattered in the act of cooling.”<sup>1</sup>

The Lejah, the ancient Argob, is described as an “ocean of basaltic rocks, and tossed about in the wildest confusion, and intermingled with fissures and crevices in every direction.” Black basaltic rocks were the building materials of the ancient inhabitants of Bashan. Whole cities are found there, totally deserted, in which the houses are as fresh and entire as when occupied by the first inhabitants two or three thousand years since. The walls are built of large squared blocks of basalt, almost as hard as iron; the flat roof is composed of long slabs of the same material, neatly hewn and closely fitted; the doors are also stone, from six inches to a foot in thickness, and hung on pivots projecting above and below, and working in sockets in the lintel and threshold, like all the gates in Syria.”<sup>2</sup> This basalt, Burckhardt remarks, “forms a principal feature in the mineralogy of eastern Syria.”

An Arabian author of a large geographical lexicon asserts that between the Haurân and Bab-el-Mandeb there are no less than twenty-eight distinct volcanic regions, and gives a specific description of each locality, with the indications of its volcanic character.<sup>3</sup>

Thus for one thousand five hundred miles along the entire line of this stupendous fissure, from the straits of Bab-el-Mandeb to the mountains of Lebanon, the margin and the bed of this crevasse are marked with impressive, appalling indications of those tremendous agencies which God must have summoned into action when in times past he arose to shake terribly the earth. At some remote period, by some stupendous convulsion, we must believe that this immense fissure was formed, rending the broad isthmus by which Asia

<sup>1</sup> Porter's Hand-Book, Vol. ii. p. 465.

<sup>2</sup> Hand-Book of Syria and Palestine, p. 501.

<sup>3</sup> Jákóts in Wetzstein's Reisebericht über Haurân u. die Trachonen seit, 98. Vol. XXIV. No. 94.

and Africa were originally united, and opening up between them the great gulf of the Red Sea. By the Peninsula of Sinai this sea is divided into two divisions, one of which runs up the Gulf of Suez, until it is lost in the sands south of the adjacent parts of the Mediterranean Sea. The other division takes the direction of the Ailanitic Gulf. Then succeeds the deep, barren bed of the Arabah, the deeper basin of the Dead Sea, and the valley of the Jordan, to its highest source between the mountains of Lebanon and Anti-Lebanon.

The mighty convulsions and throes of the earth which formed a rent in its surface of such vast dimensions, running the last hundred miles almost parallel to the eastern extremity of the Mediterranean Sea, and terminating fifteen or twenty miles from the coast, might be expected to wrench violently the intervening strata and cause a transverse fissure towards the sea. Here our theory is true to fact. The great chain of Mount Lebanon at this point is cleft by a transverse fissure, which opens through the deep, dark masses of the mountain a passage for the Litâny, the ancient Leontes. It is a wild gorge, between cliffs "from eight hundred to twelve hundred feet in height," sometimes perpendicular, always precipitous. For some two hundred and fifty feet it is only from six to twelve feet in width. At one place it is barely three feet, so that one on the brink may reach with his hand the opposite precipice. At times the branches of the trees from either side unite and form a canopy over the dark abyss. Then again the cliffs form an eyry, where the eagles securely rear their young.

But the most majestic part of this wonderful chasm is near the entrance, where the banks, a thousand feet in height, and parted only just enough for the passage of the stream, exactly correspond in the strata and cleavages of the rocks. No depression or breakage of the margin is noticed the most of the way as you approach the brink of the chasm. The undulations of the surface on each side are the same, so that the unwary traveller would suppose the whole to be one continuous, unbroken surface. At another place a large

fragment or boulder has fallen in and lodged in the cleft of the rock, forming a natural bridge one hundred and five feet above the stream. The whole combination forms a scene inexpressibly wild, majestic, sublime. Here the Litány, as if startled from its quiet course between Lebanon and Anti-Lebanon, by some terrible catastrophe dashes wildly up against the mountain, and tears on through the wild chasm several miles, leaping, roaring, writhing, as if in agony to escape from this devouring abyss to rest in the still waters of the Mediterranean.

Precisely what may be the relation of these volcanic indications along the entire line of this vast fissure in the earth, to the theory under consideration, we undertake not to determine, but respectfully submit them to the attentive consideration of the reader. May not the great depression of the Dead Sea indicate the result of volcanic action subsequent to the formation of the great crevasse by which a deeper abyss was formed as a fit receptacle for the waters of this mysterious sea of death? The vast mountain of salt, the bitumen of the sea, the bituminous rocks, the lava, scoriae, brimstone, and saline deposits upon the shores remain impressive memorials of the terrible scene when "the Lord rained upon Sodom and upon Gomorrah brimstone and fire from the Lord out of heaven." "The bottom of the sea," says Lieutenant Lynch, "consists of two submerged plains, an elevated and a depressed one; the last thirteen, the former about one thousand three hundred feet below the surface. Through the northern, the largest and the deepest one, in a line corresponding with the bed of the Jordan, is a ravine, which again seems to correspond with the Wady el-Jeib, a ravine within a ravine, at the south end of the sea."

Between the Jabbok and this sea, we unexpectedly found a sudden break-down in the bed of the Jordan. If there be a similar break in the watercourses to the south of the sea, accompanied with like volcanic characters, there can scarce be a doubt that the whole Ghôr has sunk from some extraordinary convulsion, preceded most probably by an eruption

of fire and a general conflagration of the bitumen which abounded in the plain. I shall ever regret that we were not authorized to explore the southern Ghôr to the Red Sea."<sup>1</sup>

The lack of information implied in the regret of this distinguished explorer is supplied by Dr. Robinson, whose researches fully sustain the sagacious conjecture of Lieutenant Lynch. A "break-down" south of the Dead Sea is found corresponding remarkably with that on the north, except that the southern break is more marked and decisive. At the distance of eight or ten miles from the sea, a line of high cliffs of chalk and marl runs across the gulf constituting the ascent to the higher plains of the Arabah. These cliffs "form an irregular curve, sweeping across the Ghôr in something like the segment of a circle, the chord of which would be six or seven geographical miles in length, extending obliquely nearly from northwest to southeast."<sup>2</sup> These cliffs "vary in height, from fifty to one hundred and fifty feet. The face of them, though very steep, is not perpendicular; and they are much furrowed by the rains, so that the upper part presents a jagged appearance." They are doubtless the Akrabbim, scorpion rocks, which marked the southern boundary of the tribe of Judah. In a geological point of view they are of great interest. Compared with the northern offset described by Lieutenant Lynch, they exhibit "like volcanic characters" and geological features. In the neighborhood of the northern "break-down," chalk formations are found on either side of the Jordan, corresponding to the chalk cliffs of the southern break. We may therefore regard these corresponding offsets as marking the limits of a great convulsion of earthquake and volcano, which may have sunk the sea itself, with the cities of the plain, into that deep and dreadful abyss in which they now lie, at the depth of more than one thousand three hundred feet below the level of the Mediterranean Sea, and four thousand feet below the city of Jerusalem.

In this connection the discovery of a late English traveller

<sup>1</sup> Expedition, pp. 378, 379.

<sup>2</sup> Researches, Vol. ii., p. 501 (1st edition).

becomes exceedingly pertinent and significant: "At the northern end of Jebel Usdum, the mountain of salt, is the Wady Muhawât which exhibits some very remarkable features. Its sides are cliffs of old limestone, showing here and there traces of post-tertiary marl; but since the marl has been washed out, there has been a second filling in of an extraordinary character, which is only now in a course of denudation. There are exposed on the sides of the wady, and chiefly on the south, large masses of bitumen mingled with gravel. These overlie a thick stratum of sulphur, which again overlies a thicker stratum of sand, so strongly impregnated with sulphur that it yields powerful fumes on being sprinkled over a hot coal. Many blocks of bitumen have been washed down the gorge, and lie scattered over the plain below, along with huge boulders and other traces of tremendous floods. The layer of sulphurous sand is generally evenly distributed on the old limestone base; the sulphur, evenly above it, and the bitumen in variable masses. In every way it differs from the ordinary mode of deposit of these substances as we have seen them elsewhere. Again, the bitumen, unlike that which we pick up on the shore, is strongly impregnated with sulphur, and yields an overpowering sulphurous odor; above all, it is calcined, and bears the marks of having been subjected to extreme heat."

This discovery of our traveller is exceedingly interesting and important; and his remarks upon it will be read with the deepest interest by all students of the Bible: "So far as I can understand this deposit, if there be any physical evidence left of the catastrophe which destroyed Sodom and Gomorrah, or of similar occurrences, we have it here. The whole appearance points to a shower of hot sulphur, and an irruption of bitumen upon it, which would naturally be calcined and impregnated by its fumes; and this at a geological period quite subsequent to all the diluvial and alluvial action of which we have such abundant evidence. The catastrophe must have been since the formation of the wady, since the deposition of the marl, and while the water was at

its present level; therefore, probably during the historic period.”<sup>1</sup>

If we may accept the theory here proposed respecting this great crevasse of the Jordan and of the Red Sea, it must stand acknowledged the most extensive and extraordinary on the surface of the earth. What a sublime conception it gives of those stupendous convulsions by which our globe must have been rent and torn in the remote periods of its geological formations.

The writer is not a proficient in the details of geological science. With great diffidence he proposes this theory respecting this great crevasse, awaiting, respecting it, with profound deference, the opinions of the learned, more worthy of public confidence. The crude conception of this vast fissure was suggested several years since, while traversing the desert of Sinai, and alternately the bed and the margin of the chasm itself. Reading and reflection have matured this hypothesis into a settled conviction, to which expression is given in this form to invite the consideration of those who are more competent for such profound, recondite speculations. What then of the theory under consideration? Is it altogether fanciful and unfounded, or may it claim some consideration among the generalizations of science for which that of geology is so remarkable?

<sup>1</sup> Tristram, *The Land of Israel*, pp. 355-357, cited in *Kitto's Biblical Cyclopaedia*, Vol. iii. p. 797.