

## SECOND ORDINARY MEETING.

Wednesday, November 27th, 1878; ROBERT RAWLINSON, C.B., Vice-President of the Council, in the chair.

The following candidates were proposed for election as members of the Society:—

Allsup, William James, F.R.A.S., 5, Eastcombe-villas, Blackheath, S.E.  
 Haddan, John Lawton, 25, Great George-street, S.W.  
 Humm, Moses, 707, Commercial-road, E., and Chester-lodge, Loughton, Essex.  
 Marsland, Robert, 21, Grosvenor-street, Camberwell-road, S.E.  
 Mercer, Francis Montier, 59, Bishopsgate-street Within, E.C.  
 Preece, W. H., Telegraph Department, General Post-office, E.C., and Gothic-lodge, Wimbledon.  
 Preston, Richard, Tottington, near Bury, Lancashire.  
 Soames, J. K., Thames Soap Works, Greenwich, S.E., and 21, Vanbrugh-park, Blackheath, S.E.  
 Walker, Walter Frederick, 3, Moore-park-villas, Walham-green, S.W.

The paper read was—

## MIDIAN AND THE MIDIANITES.

By Captain Richard Francis Burton.

Allow me, after the fashion of novelists, to open with an *inscensetung*; after which my audience will be able to answer the queries, "Midian," where is it? and what is it?

To those who read their Bibles the "land of Midian," is a household word; "vexing the Midianites" and "Midianitish women" are familiar terms. But perhaps you do not know how hazy, upon the subject of the grand old land, before my trip to North-Western Arabia, in the spring of 1877, were the *literati*, the press, and the reviewers, who claim to educate their public; how they proved themselves in this case to be blind leaders of the blind.

"Midian" was indeed a *vox et preterea nihil*—a voice, a mystery. All the knowledge concerning it was confined to a few Biblical points. For instance, Midianites, merchantmen, bought Joseph from his brethren, and sold him in Egypt (Gen. xxxvii., 28). Moses, flying from the face of Pharaoh, dwelt in the land of Midian, or the "east country" (Exod. ii. 15), and there married the daughter of Jethro, the priest (b.c. 1491). Despite this alliance, there was war between the kindred peoples, when the Hebrews, led by the Great Law-giver (b.c. 1452), burned the "cities and the goodly castles" of Midian, and carried off a splendid spoil of gold, silver, brass (copper or zinc), tin, iron, and lead, with vessels of gold, chains and bracelets, rings, ear-rings, and tablets" (Numb. xxxi., 22, 50-54). After a lapse of two centuries (b.c. 1249), the Midianites again grew powerful, and their revenge upon their terrible kinsmen ended in the second Midianite war. I need hardly tell you how the sword of the Lord and of Gideon slew the Ishmaelite kings, Zebah and Zalmunna, with some 135,000 warriors, and won so much gold that Gideon "made an ephod thereof, and put it in his city" (Judges viii., 24-27). After this crushing blow, the Midianites fade out of Holy Writ, and you hear of them only in the effusions of the Hebrew prophets and poets. The land of these noble old Bedawin knows them no more.

Allow me to quote a few specimens of divergent opinion upon the subject of "Midian." The classical authors of Greece and Rome utterly ignore the word, and include the country under the well-known term "Nabathæa." The mappers of Josephus, the historian, a countryman and contemporary of St. Paul, propose to settle all difficulties by splitting Midian into two Midians. The mediæval Arab geographers are mostly at variance; some, however, assign to Madyan the limits which will presently be proposed. Coming down to our modern day, Voltaire, the noble Frenchman who created religious liberty in France for Europe and the world, and who had "de l'esprit comme tout le monde," made Midian a "sandy region which may have contained some villages." He adds, it was a "canton of Idumæa, beginning north with the Arnon torrent (Wady Mújib), and ending south with the torrent Zared (Willow valley), lying among the rocks, and on the eastern shore of Lake Asphaltitis (the Dead Sea); it is thus about eight leagues long by a little less in breadth, and it is now held by a small horde of Arabs." You will see how thoroughly erroneous is all this. Later still, some of our popular books prolonged "Midian" into Sinai; whilst others, again, either knew it not, or projected it into impossible places. The map attached to Andrew Crichton's well-known "History of Arabia" (published 1834), ignores "Midian," and supplies the whole tract with only a single name—"Moweylah." Professor Palmer ("Desert of the Exodus," p. 527) would "identify Midian with the extensive ruins of El-Midayen, a station on the Darb el Hajj, between Damascus and Mecca, three days distant from the latter town." This Orientalist goes much too far south. A reviewer in the *Pall Mall* (June 7th, 1878) makes "Midian" extend "from the north of the Arabic Gulf (Lake of El-Akabah), and Arabia Felix (which, the ancient or the modern?) to the plains of Moab." He goes as much too far north, intruding upon Idumæa proper (Edom) which lies between Midian and Moab. Marvellous to relate, we find the irrepressible Lieut. C. R. Conder, R.E. ("Tent Work in Palestine," Bentley, 1878) declaring "the hosts of Midian were no doubt the ancestors of the modern Bedouin." This theory is about on a par with that of the Russians in the 13th century, who believed that the Tartars, with "their four-cornered faces," were the ancient Midianites coming in the latter days to conquer the earth. Even those who have visited the seaboard give no certain sound. My last predecessor was the lamented Dr. Charles Beke. In some seventeen places, he mentions "Madian," the city; but of the northern and southern, the eastern and western limits of "Midian," the country, nothing. Thus the famous old land became, like Italy of the last generation, and like modern India and Turkey since the Congress, one of the late Prince Metternich's "geographical expressions."

So much for the outer world. The modern Midianites, on the other hand, the Bedawin who now hold the soil, give a precise topographical definition of its limits; and, as some of them have held it during the days of the Byzantine Empire, I claim high authority for their catholic and constant tradition. The "Arz Madyan" of the Arabs begins north with the fort of El-Akabah, the Elath

or Eloth of the days of Solomon (N. Lat.  $29^{\circ} 28'$ ), at the head of the dangerous Gulf so named. It extends south to the fort of El-Muwaylah and its great watercourse, the Wady Surr (N. Lat.  $27^{\circ} 40'$ ). These frontiers, absolutely fixed, would give the Egyptian province a latitudinal length of 108 direct geographical miles. The Bedawin, again, are as precise in their definition of the breadth as of the length. All the Tihámah ("Lowlands") between the sea and the double maritime range, the Gháts of North-Western Arabia, are "Madyan;" and the depth varies between 24 and 35 miles. The country east of this wavy meridian belongs geographically to El-Nejd (the "Uplands"); and, politically speaking, it is Syrian. Note that "Arz Madyan" the country, must not be confounded, as many have done ("Madián in Midian" p. vii.; introduction to Dr. Beke), with "Bilád Madyan;" the latter is the ruined city on the eastern shore of the 'Akabah Gulf, about one third of its length from the "Gate," or straits which connects it with the Red Sea.

The whole seaboard south of Fort El-Muwaylah, as far as the Hejáz, the Holy Land of the Moslems containing the sacred cities of Mecca and Medina, has, absolutely, no generic name. The Bedawin, who luxuriate in exuberant nomenclature, have a medley of local terms, as "Country of Wady Salmá," "Lands of el-Wijh," and so forth, for the section bounded by the parallels of El-Muwaylah and Wady Hamz (N. Lat.  $25^{\circ} 55'$ ) where the Egyptian and the Ottoman possessions meet. The southern moiety of the Khedí's province would thus measure in length 105 miles, a little less than the northern; whilst the depth inland must be at least doubled. The total extent of the Midianite seaboard then, is 213 miles, which the excessive sinuosities of the coast would prolong to 300.

I have taken the liberty of applying the venerable name "Midian" to all the littoral between El-'Akabah and El-Hejaz; and of distinguishing the upper half as "Madyan proper," or "North Midian," as opposed to "South Midian" the lower. In the by-gone days of Midianitish splendour and power, the frontiers were so elastic that they extended at times, as in the age of Moses, across the Gulf, and deep into the Sinaitic Peninsula. When Gideon judged, they stretched forth through Edom and Moab to the Esdraélon plain. Their expansion and their contraction depended upon the relative strength of the tribes and clans, each acting upon the good old plan of taking and keeping all it could. My distribution is justified by ethnology. In the days of old, all the country was held by the Nabat or Nabathæans; in these times the people are, with one trivial exception, Egypto-Arabs. It is also politically correct. "North Midian" and "South Midian" still own the rule of H.H. Viceroy of Egypt: this prince garrisons all the seaboard forts that protect the pilgrim-highway from Suez to the sacred cities.

Dr. Aloys Sprenger, whose reputation as an artist is world-wide, offers two main objections to my thus extending the term "Midian." Firstly, it is an innovation. Granted—we cannot be Conservatives in geography and ethnology. Secondly, it prejudices the historic question concerning the relative claims of the rival Thamúdités and the Qodhá'a or Kudá' tribes, who, in hoar antiquity,

held the land. But this is going too far back; in the 19th century we need hardly be subjected to events preceding the 7th. On the whole it seems to me that by adopting the innovation we gain more than we lose. The question, however, must be left to that high tribunal—the Public Opinion of geographers.

As regards the proprietorship of our future mining province, I would remove every shadow of doubt. The *Times* correspondent from Alexandria (April 27, 1878) says, "that Midian lies to the east of the Red Sea, and that it belongs, for some mysterious reason, to Egypt, is all that 99 out of every 100 know about it." The mystery is easily cleared up. "Madyan Proper," or North Midian, was an Egyptian province in the days of the Pharaohs. The fort of El-Wijh still bears the name of Ahmed Ibn Taylún, founder of the Taylúnide dynasty in A.D. 868-84. The "Migdol" or castle of El-Akabah is yet inscribed with El-Ashraf Kansúh El-Ghori, the last but one of the Circassian Mamlúk kings of Egypt, who, in A.D. 1501, was defeated and slain by the Turks near Aleppo. Sultan Selim Khán el-Fatih, the conqueror, after putting to death the last of the dynasty, established Ottoman rule over all Egypt; and, consequently, over its dependency, the land of Midian. About 16 years later (A.D. 1517) he rebuilt the two forts and committed the charge and safeguard of the country to the Mamlúk Beys, the successors of the Circassian kings. The frontiers were defined by the simplest process; all was to be Egyptian in which the tribes paid tribute to, or acknowledged, the authority of Egypt; beyond them began the rule of Syria, the "impracticable and monstrous government" of the Porte, as it is called by General di Cesnola (p. 40). The reign of the Beys lasted till the French invasion (A.D. 1799); and was definitely ended by their massacre at Cairo in March 1, 1811. This event brought into power the great Mohammed Ali Pasha; he transmitted all his possessions and prerogatives to his descendants; and the latter, as you know, still rule all that has ever been called Egypt—and more. There is a greater Egypt, even as there is a greater Britain.

I must further trespass upon your patience by a short notice of the word "Midian." According to the Hebrews (Gen. xxv., 1) the land took its name from Medián or Medán, Abraham's fourth son by Keturah the Cushite, whom the "Friend of Allah" married after the death of Sarah (B.C. 1860). Median, the eponymus, became the sire of five patriarchs, who represent the progenitors of the extinct Midianites and their Pentarchy. Certain Hebraists declare that "Midian" signifies, in its own tongue, "strife, contention," a "litigious people," or a race struggling (for the possession of a country equally coveted by Asiatics and Africans). The word, however, occurs in many hieroglyphic texts; and the plural of Mádí would be Mádí-án, or Mádí-ná: we only know that in old Egyptian it is a barbarous and unmeaning term. According to the mediæval Arab geographers, whose testimony upon such remote events must not be accepted, "Madyan" is the name of the tribe to which El-Shu'ayb, the prophet Jethro, belonged. And I repeat, that "Midian" is a word confined to the writings of the Hebrews and the Arabs. The classics, as Strabo, Pliny, and Ptolemy, would include it under the comprehensive term Nabathæa,

whose western capital, Petra, has become familiar to you as Cornhill. Finally, "Midian," country, capital, and perhaps, chief port, ever bore, and still bears the same name, a practice common to this part of the East—witness "El Shâm," (Syria and Damascus), and "El Misr" (Egypt, and Cairo).

The first glance which the voyager casts upon the land of Midian is a sight to be remembered in after years. That majestic scene, at once grand and simple, was right well suited to the heroic race of Bedawin who once held the soil. It reflects to a certain extent the Sinaitic Peninsula that faces its shores. Here, however, there is a sharper contrast of the flat and the high, the low and the tall, the horizontal and the perpendicular; of the well watered lowlands, with a luxuriant vegetation of emerald green, and of the rocky uplands, sterile and cruel as a moon-landscape; of the cloud-shadows flecking the mountains, and of the serene and lofty sky, so remarkable in these regions, that domes the plains.

Let us briefly note what we first see from the deck of our corvette. Beyond the cushions of golden sand which, hemmed and striped with verdure, oppose the bright blue waves, rise flat-topped banks and peaky hillocks, of modern grit and arenaceous stone. Their dull yellows are almost hidden by sprinkles of dark silex, by weathered fragments of ruddy porphyritic traps, and here and there by blocks of pale, neutral-tinted, granite. Inland, these banks become foothills as gloomily metallated and revetted; but

Across the dreary wild, the sun  
Casts amber'd radiance, red and dun;

whilst the picture is glazed with azure and purple by the intervening air of matchless purity and brilliance. The background is a towering line of kingly mountains, a surprise and a delight to the eye after the meanness and flatness of the Suez coast.

This sea-wall is known as the Jibál el-Tihámah, the "Mountains of the Lowlands," which correspond with the Gháts of Western India: apparently continuous, it is broken into sundry blocks lying on different planes, and it reaches a maximum of 6,000 to 6,500 feet above the "water mirror." Amethyst-hued with aerial blue distances; here golden in the sun-glow, there bright with rose-leaf and flame-tint, and there again shaded with stripes of violet-brown and purpling red; barren and nude of vegetation, yet gorgeous in its coat of many colours, it stands fantastically cloven and sharply outlined against the bright ocean of cloudless air. Nothing can be more striking than these "Alps unclothed;" these monarchs of the Midianite mountains, which the prosaic old British navigator (Irwin, 1779) dubbed the "Bullock's Horns," and which a later writer (Wellsted, 1830) compared to "enormous icebergs." Their Titan shoulders, beaten by the suns and storms of ages, support peaks and pinnacles, organ-pipes, chimney-tops and Logan-stones; huge domes, truncated towers and sharply isolated cones. Fresh from the Dolomites of the Tyrol and Dalmatia, I had a first impression that the building material must be the same fire-bleached *calcaire*. Happily, it was a wrong impression, and, when anchored apparently at the base of El Shârr, the "Landmark," we remarked that the mighty curtain, which backs El-

Muwaylah, seems to rise and fall as if by magic; it imitates in fact the framework of man. A giant during early morning, when the "dancing of the air" adds many a cubit to its stature, at midnight, after the equipoise of atmospheric currents, it becomes a dwarf *replica* of its former self. The cause is simply that which breaks the stick in water—refraction.

These mountains began north with the uplands of Moab, which rise some 4,000 feet above sea level; run down the whole western coast of Arabia; and meeting the eastern Gháts, form a huge *nevus*, the Highlands of El-Yemen. Similar lateral fringes are constant features in triangular peninsulas, whose apex fronts the south: witness Africa, South America, Hindostan, Sinai, and little Istria. South of Moab they become the lofty right bank of the Wady el-'Arabah (of the 'Araboth or plains); in geological ages the upper bed of the Gulf el-'Akabah. The latter thus headed in the Dead Sea; and more than one engineer has proposed to restore the connection, threatening a 19th century deluge to the whole valley of the Jordan, including the Tiberias and Gennasereth lakes, which are 620 feet below sea level. The chain, single to the north, was known in the days of Rameses III. as "Sa'ar of the Shasu," the latter identified by the learned Brugsch-Bey with the Hyk-sos, or Shepherd Kings. The Hebrews term it "Mount Seir," meaning "the rugged," a name perpetuated in the Jebel Shará of the modern Arabs. Entering Midian at the Pilgrim-station El-'Akabah, the Elath of Solomon (B.C. 1000), it becomes a double range running parallel with the seaboard. There is, however, no distinct separation by plain or plateau; the only difference is that the granite predominates in the maritime ridge, the Jibál el-Tihámah; and the porphyrites in its eastern or inland neighbour. The latter line is called El-Shafah, corrupted to El Shifah, meaning "the lip," probably because it forms the margin or edge of the Nejd uplands.

The Gháts are the salvation of Midian, their coast. The bare bastions of rugged rock at once act as barriers against the arid land-breezes, and condense the warm and moisture-laden winds from the Red Sea. The heavy downpours sinking into the loose sandy soils at their base, percolate underground, and presently re-appear in the shape of perennial pools at the shore-mouths of the Wadys or watercourses. Hence the dwarf-plots of grain and vegetables; the fruit trees and the luxuriant palm orchards, which look like torrents of verdure pouring down the land, are mostly confined to these places. During winter the highlands are reservoirs of "frigorice." Water freezes on the upper levels; and, swept by the raw and searching north-easter, the peaks have icy fangs, and the churlish chiding winds become Sarsars—cold and shuddering blasts. Despite their rigorous climate the higher regions of the interior are, I repeat, preferred by the Bedawin because the heavy dews and rains produce an abundance of pasture for their camels and asses, sheep and goats.

We will now take a bird's-eye view of the maritime line, beginning with the headwaters of the "Red Sea of Edom" (1 Kings, ix., 26) and ending at the frontier of the Moslem Holy Land. "Madyan Proper," or North Midian, opens with the sandy and stony lowlands of the 'Akabah Gulf,

cut by a network of dry torrent beds, and gradually upsloping to the single range of eastern mountains. The coast is dangerous in the extreme; the lead often falls 120 fathoms without striking bottom; both the north and south winds are a terror to navigators; and the fine ports mentioned by Procopius, are little coves barred and blocked with coralline reefs. About midway the Gháts impinge upon the shore; they then sheer off inland, and their place is taken by foothills rising from a slip of coast. About Makná, two-thirds down the 'Akabah Gulf, the eye is pained by a secondary formation of gypsum, which contrasts strangely with the blue mountains, and the bluer seas. Now tinged with a sickly yellow or greenish hue, then a ghastly glaring white, and everywhere bare as a bone, it is the bleached skeleton of a grisly land. The formation which extends in a broken sheet to the Sinaitic peninsula opposite, and which may be traced down coast to our extreme limit, is evidently older than the Gulf. It is ribbed by ridges of felsite and porphyritic trap, dark-red and bottle green, usually trending north-south, a black-stone land in a white stone land, and looking from afar like gloomy reefs in a milky sea.

The name, Makná, is the same in Ptolemy (vi. 7) who writes it also Maína and Maéna. Josephus terms it the village Midian, and the mediæval Arab geographers describe it as the "ruined town Madyan, containing the well where Moses watered the flocks of El-Shu'ayb" (Jethro). It is still known to the Arabs as "Madyan," the name of the country; and it has evidently borrowed it from the capital, Madiáma, or Magháir Shu'ayb. Here we found vestiges of an artificial harbour, a high town, which may have been a monastery, and the "Praying place of Moses," a ruined building of alabaster, but no well.

The *báb*, or "gate," of the 'Akabah Gulf is formed by a series of long low projecting points, named by the charts Ras Fartak, "the headland which powders or beats to pieces." It is known to the Bedawin as Ras Sheykh Hamíd, and pious visitation is still made to the tomb of its holy man. Here, after a total length of 90 miles (N. Lat. 29° 30' to 28°), ends the 'Akabah Gulf, whose unbroken eastern shore-line runs from NN.E. to SS.W. Beyond this point, the Midian coast suddenly sweeps from west to east for an extent of 40 miles. It is torn and broken by the violence of the southerly gales into a fringe of thin sand-tongues, often sickle-shaped; and it is outlaid by a small archipelago of *îles brisées*, reefs, and shoals. The chief islets, ranged upon a parallel of latitude, number four, Tírán (of birds), Sinafir (possibly after Pharaoh Senoferu), Shu'shu', and Barahkan; with Yubú' and Silah to the south. They were evidently known to the ancients; and every modern geographer has the pleasure of identifying for himself Iotábe and Día, Salydó, Soukubúa, and Isis Islands.

I cannot but hold this great bend to be the *Kolpos* (gulf) of which Diodorus thus speaks. "The navigator, passing the grassy plains (to the north where little grass now grows), is received by a bay, a paradox of nature, which trends inland to the innermost recess, a depth of 500 stadia (50 geographical miles), enclosed everywhere by rocks of marvellous size. The mouth is crooked and hard to hit, for a low reef hems in the bay allowing

neither ingress nor egress. Amidst the rush of the current and the shiftings of the wind the billows boil tremendously, and are ever breaking upon the stony shores that oppose them. The people, called Banizoménés, live upon the flesh of wild beasts hunted by dogs. At that place is a most holy fane held in highest honour by all the Arabs."

It is impossible not to suspect that these fantastic, imaginary, sensational horrors were fabled by the Midianites to deter strangers from interfering with their monopoly—metal-working. Ruppell, the landsman, repeats that 'Aynúnah Bay, the "innermost recess," is "full of shallows, and quite useless for shipping." Wellsted, the sailor, describes it as well sheltered from all winds; and assures us that "under a good pilot a vessel might enter with every facility and safety." According to Agatharkides, Diodorus, and Photius, the "tailings," or gold sands, began to the south, in the land of the Debai (Debæ, Thebæ, or Dahabân—N. Lat. 21°); while the Alilaioi (Alilæi of Hali, N. lat. 18° 15') were rich in nuggets. "They find," say our authorities, "a quantity of gold in the crusty substrata" (the *Cascalho* of the Brazil), "not dust, melted and treated with technological skill, but produced by nature and called by the Greeks *Apnyron*." The word, meaning metal not requiring purification by fire, is synonymous with the Arab *Tibr*, or nugget gold, purer than stream ore. They continue, "The smallest pieces are not smaller than an olive-stone, those of medium size equal a medlar, and the biggest a walnut. The people wear nuggets round their wrists, threaded alternately with transparent stones, and sell them cheaply to their neighbours. Brass (copper? zinc?), is worth twice, iron double, and silver ten times their weight in gold." And yet there are moderns, Niebuhr for instance, who declare that "the precious metals are not found or known to exist in Arabia, which has no mines either of gold or silver."

Let me finish the bird's-eye view of the maritime Midian. South of El-Muwaylah, the face of the country preserves its peculiar physiognomy with slight alterations of feature. The mountains decline in height from a maximum of 6,500 feet to 3,300. The volcanic chain approaches the shore; fewer and smaller islands break the coast-line. The seaboard-plain waxes broader and more important; the temporary "tabernacles" of the Bedawin, mere shanties or booths, became villages of masonry; and the southernmost, El-Wijh, claims rank as an Arab town. Finally, with these characteristics ever more forcibly displayed, we reach the great Wady Hamz, the frontier of Egypt and the Ottoman Hejaz.

Midian is not included by Hebrew Holy Writ in auriferous Arabia; and the rich booty of precious metals which fell to Moses and to Gideon might have been made by merchandise as well as by mining. The chief diggings (Gen. x. 28-29) were Sheba, Ophir, and Havilah, all in the southern peninsula; while the centres of minor importance were Hazeroth, Parvaim, and Uphaz. Hazeroth is mentioned in the Exodus (Deut. i. 1); where the A. V. reads "Hazeroth and Dizahab," instead of "Hazeroth, where there is gold;" or "which owns gold." This Hazeroth is usually identified with the modern Ayn el-Hazrah, a fair valley near the

N.E. coast of the Sinaitic peninsula, a little north of the Wady and Marsá Dabab, the "water-course and anchorage of gold." Parvaim is the modern Farwah in Khaulán which represents the land of Havilah; and Uphaz may be a simple corruption of Ophir.

After this general *mise en scène*, I proceed to the actualities of our travel in Midian. Let me mention, by way of preliminary, that both of the expeditions, which I had the honour to lead, were sent out at the sole expense of H.H. the Khediv of Egypt, Ismael 1st, a Prince to whom the future will be more generous than the past has been just. To this Viceroy alone we are indebted for our present knowledge of the neglected and almost mythical old "kingdom." Dr. Edward Rüppell, the first explorer in 1826, was compelled by slender means to make a flying trip through a land inhabited by tribes who were never safe, and who, at times, were dangerous. Wellsted, when surveying, under Moresby, the coast of Midian, in 1835, shows that more than once he and his men ran risks from wreckers; and had to face the chance, when they landed, of being held to ransom. The late Dr. George Augustus Wallin, in 1847, could only make a fitting across the country, and was unable to visit the most interesting sites.

The energetic Viceroy changed all that. During the spring of 1874 His Highness forwarded, in his little steamer *Erin*, my regretted friend, Dr. Charles Beke, who, at the ripe age of 74, gallantly went forth to find the "True Mount Sinai." You are doubtless familiar with the splendid volume, "Sinai in Arabia" (Trübner, 1878), so ably and fondly edited by his widow, Mrs. Emily Beke. In early 1877 the Khediv was pleased to place under my command the first Khedivial expedition; it consisted of a small guard of Egyptian officers and men, with a French engineer, M. George Marie, and an Englishman, Mr. Charles Clarke, acting commissariat officer and accountant. This preliminary visit lasted little more than a fortnight (April 1-18), but it gave me a fair general view of the country; it brought back specimens of gold, silver, and, in fact, all the metals mentioned in the Book of Numbers; and it enabled me to publish my prefatory volume, "The Gold Mines of Midian."

Invited, in 1878, to carry out the discoveries of the previous year, I returned to Cairo, and organised, under the auspices of His Highness a second Khedivial expedition. This time it was mounted upon a larger scale. Besides my two former *compagnons de voyage*, an artist, M. Lacaze, and a smith, M. Philipin, were engaged. Six Egyptian officers, including two upon the staff, commanded an escort of twenty-five Negro soldiers, carrying Remingtons, and a gang of thirty unarmed miners, or rather quarrymen. We were liberally supplied with mules, tents, and rations for four months; and we had an abundance of rude implements, picks, crowbars, and boring rods. As the first exploration had been purely tentative, so the second was expected to bring back, in masses sufficient for assay and analysis, quantitative and qualitative, and specimens of all the formations that appeared metalliferous.

After the delays and troubles inherent in such undertakings, the Expedition embarked on board the despatch-boat *Mukhbir*; and, after duly break-

ing down, landed at El-Muwayl.h. on December 19th, 1877. As will be seen, the *reconnaissance* of the country naturally distributed itself into three distinct sections; 1, through North Midian; 2, through Central or Eastern Midian, that is, into the interior; and 3, through South Midian. The three occupied four months within a single day.

I had great hopes for our first or northern excursion, which lasted 54 days, till February 13th, 1878. My old friend, Haji Wali, who, about a quarter of a century ago, had showed me gold dust in "tailings," accompanied us, and I had no reason to suspect his honesty. Nothing could be more disorderly or distracting than the caravan when first formed. The men, even wilder than their half-wild animals, began work at 3 a.m. and ended about 8 a.m.; while the fractious, peevish, fretful, grumbling "desert ships" numbered 106 instead of 80. However, under Dar-For discipline, matters presently improved; the beasts diminished to 64, and loading-time to a quarter of an hour.

We marched at first northwards along the seaboard which lies at the base of its great range. It is known familiarly as El-Sábil ("the shore"), geographically as the Tihámat Madyan. The "Lowlands of Midian" are thus distinguished from other sections of similar formation; Tihámat meaning the hot, unhealthy coast-plain, opposed to El-Nejd, the salubrious uplands. The breadth would vary from *nil* to 28 direct gross miles. The "null" is about midway, where the block El-Mazhafah falls sheer into the Gulf El-'Akabah; and the maximum breadth would be between 'Aynúnah and the semicircle of mountains forming the background. This Tihámah is evidently in part a modern growth; the shore-line is a false coast built of *débris* washed down from the Gháts; while further inland rise the foot-hills of the Jibál, the main range. The surface is disposed in alternate stripes of sand and stone. The former are the Wadys, or water-courses, the Hebrew *nahal*, the Anglo-Indian *nullah*, the Greek *kheimarrhoi*, the Italian *fiumare* and *burroni*, and the *potoks* of the Slavs. Not having the thing, we hopelessly English the word by "dry river," by "winter brook" or "torrent;" or, worse still, by "valley." Where breaking through the mountain flanks, and deeply encased by cliffs and slopes, the beds roll, every ten years or so, devastating torrents like those of disforested France. Nearer the sea they flare out into open undulating plains of soft sand, which, all trending to the south-west, occupy at least half the ground. Here they are divided from one another, not by distinct lines of hills, but by a wave of land, mostly arenaceous matter metallised with a natural macadam of dark silex, trap, and iron-stained grits. Vegetation—sal-olæ, acacias, and mimosas—is here rare, and water is rarer, save close to the sea. Consequently, the rainless and sun-parched Tihámah is shunned by the Bedawin, who feed their flocks and herds upon the hills, descending only during the date harvest, July and August. In the uplands they affect the tent; in the lowlands the "tabernacle," or hut, built of grass, reeds, and the trunks and fronds of the palm, and looking from afar not unlike ragged bird's nests.

Our route led, *viâ* Wady Tiryam and Sharmá, to the Jebel el-Abyaz, or White Mountain, meaning, "of quartz." After a week's work on and around

it, we returned to Sharmá, and marched upon 'Aynúnah. Of these places I shall say nothing, have they not all been written in my published volume? We then broke new ground from 'Aynúnah to Magháir Shu'ayb, the "Caves of Jethro." It corresponds with "Madiáma," the "Mesogeian city" of Ptolemy (N. Lat. 28° 15') and must not be confounded with his Modiana, or Modouina (N. Lat. 27° 45') whose position (Sharmá? Tiryam?) is still under the judge.

These ruins show what was, after Petra, the largest Nabathæan station on the great highway, one of the earliest of our many "overlands," which began at Leuké Kóme, the southernmost port, and which followed the eastern coast of the Red Sea, in order to avoid the dangers of the 'Akabah Gulf. From its northern terminus, the "City of the Rock," roads branched off to Syria, Egypt, and the Mediterranean; and thus the cloths and ivories, the spices and perfumes of India found their way to the outer world. The remains are most interesting, despite their maltreatment by time and man. My coming book "The Land of Midian (revisited)," will enlarge upon the picturesque high-town and palace (Laura?) crowning the gypseous hill which overlooks the bank; the broken alabaster walls, forts and houses of the "Mutakaddimin," *veteres*, or old ones; the Nabathæan catacombs dug in the solid rock, and the huge tank and guard-house of the mediæval Moslems. Here, and here only, we found some 250 Midianite coins; besides which we brought back specimens of stone weapons, and articles of steatite like those of the Brazil; copies of *graffiti*, and fragments of bronze, which will be compared by assay with the metal of the European prehistoric age.

From Madiáma, whose ancient civilisation was apparently that of the Nejed, or South Country mentioned by Abraham, we marched down a remarkable valley to Makná, its sea-port. The little cove, at the northern extremity of the gypsum-field, has been minutely described by the late Dr. Beke and myself (p. 14, 15.)

At Makná the aviso *Mukhbir* awaited us, and after a severe storm that blew away our heavy tents like umbrellas, we embarked for the other side of the 'Akabah Gulf. How we rounded that restless and perilous water; discovered the metal-diggings of ancient Elath, now Akabat-Aylah, and escaped shipwreck only by the energy and courage of Mr. David Duguid, our Scotch engineer; and, finally, how we returned to El-Muwaylah safe and sound, by a manner of miracle, will presently be told to the world in detail.

The first Khedivial expedition had brought back, from this fine mining country, specimens of free gold, found in basalt apparently eruptive; silver appeared in the red sands, and in the pavonine quartz, and titaniferous iron of the Jebel el-Abyaz; silicate, carbonate and other forms of copper were extracted from chloritic slate and quartz; lead and iron lay everywhere; zinc was abundant; half the land was composed of gypsum and selenite, and the sulphur rivalled that of Naples. The second visit added to these metals a quantity of antimony and, I suspect, of mercury.

After a short rest for man and beast at El-Muwaylah, I organised the second excursion through Central Midian. The object was to

determine the depth of the metalliferous region from west to east; and, in the latter direction, I had hopes of finding a virgin goldfield. We set out on February 19th, and travelled 18 days, not including a week devoted to exploring the mighty Shárr *massif*, behind El-Muwaylah.

A devious march of five very short stages led us through the double parallel line, known as the Jibál el Tihámah and the Shafah. The expedition then reached the region called El-Hismá, a word primarily meaning a desert-flat, with dusty hillocks. It is a long, thin line of the New Red Sandstone; a hollow plain, measuring about 170 miles from north to south, and varying in height from 3,000 to 3,800 feet. The loose, siliceous soil, here pink, there pink-white, dotted with isolated cones, is fair to look upon; and wants only water to become exceptionally fertile. In the south it is prolonged by El-Jaww, "the hollow," a region as yet unvisited by Europeans. Eastward, the Hismá abuts upon El-Harrah, the "hot" or the "burnt" region, a volcanic tract, to which inadequate limits have been assigned. Wallin, who traversed it in 1848, makes it a parallelogram, about one degree long (N. Latitude 28°—27°), and disposes it diagonally from north-west to south-east. Thus, it heads a little north of El-Muwaylah, where it lies some 60 miles from the sea; and it tails near El-Jaww. I found, however, by inquiry from the Arabs, that this eruptive region is much more extensive and important than our maps allow. It begins to the south-east of the Dead Sea (N. Lat. 31°); about 150 miles south (N. Lat. 28° 30'), we found an off-set near Makná; we first sighted it, on this excursion, east of the parallel of El-Muwaylah (N. Lat. 27° 40'), with a little northing, and we last saw it near El-Haurá (N. Lat. 25° 6'). Moreover all assured us that it reaches the neighbourhood of Medina and El-Yambiú, some 60 miles further south (N. Lat. 24° 6'). If these limits be true, the line of vulcanism subtending the north-western flank of Arabia would measure from north to south nearly 7°, or, more exactly, 414 direct geographical miles.

These two regions, the Hismá and the Harrah, may be defined geographically as the western walls of El-Nejd, the great plateau forming the heart of Arabia, the home of the Arab blood horse; and the centre of all that is brave and beautiful, and thoroughbred in the races of Arabian man and beast. This section of our march gave us a correct profile of the five formations which lie parallel and east of one another. They are—1, the sandy and stony maritime region, the foothills of the Gháts, granites, porphyries and traps with large veins and outcrops of quartz, and Wadys cutting through thick beds of conglomerates; 2, the Jibál El-Tihámah, the majestic range which bounds the seaboard inland, composed of granites emerging from the felsites and porphyritic traps; its broad sandy beds, rivers without water, and narrow rock-gorges form the only roads; 3, the Shafah, or lip, a prolongation of the Ghát, in which the porphyries almost obliterate the granites; 4, the Hismá, or strip of New Red Sandstone; and 5, the Harrah, or volcanic region.

Our march eastward, and its benevolent mineralogical intentions were violently arrested and frustrated by a bandit tribe, subject to the rule, or rather the no-rule, of unfortunate Syria. These



Ma'azah, with their kinsmen, the Beni Atíyyah, have extended as far north as Moab, where their razzias are much feared. Modest demands of 100 dols. (£20) per diem, and symptoms of reviving the terrible *vendetta*, the blood-feud, began in the evening when we crossed their frontier. We had come, not for war, but for exploration. We were hardly strong enough to fight; and, had we fought, we should have been in the wrong. The tribe was ungentle and inhospitable, greedy and turbulent: still, according to Arab ideas, it had the fullest right of dictating the terms under which it would permit foreigners to pass its frontiers. Lastly, our Shayks of the Huwaytát tribe had freely trusted their lives, their men, and their camels to my guidance; and I was bound to see them safe out of the lion's den.

Yet not the less was February 25th a veritable ember-day. We retraced our footsteps, and descended the double *Khwaytah*, or "pass," which connects the Hismá with the Tihámah. Free from the Ma'azah we now bent to the south and the south-east, over what I believe to be untrodden ground. We explored and collected geographical details concerning the three great parallel basins, especially the Wady Dámah; this is a species of Arabian Arcadia, where clumps of trees form important features in strangely picturesque views, worthy of Petra and Moab. We also dug into and planned the two principal ruined cities, called by the Bedawin, "Shaghab and Shuwák." The latter lies in a broad water-course, upon a long bank of modern sandstone and clay, which a sandy branch, on either side, converts into a manner of holm, or riverine islet. The town preserves only bare foundations of masonry, and little salt-white heaps, which mimic the mighty tumuli of Babylon, Nineveh, and Troy. We traced a fort, a tower, a number of smelting furnaces, and caves which have been catacombs. The arrangements for collecting and distributing water have been upon a large scale—tanks and cisterns, leats and conduits, channelled with rough cement overlying a firmer concrete. The *magnus opus* is the great aqueduct on the left bank, showing, where the sands have not buried it, a length of at least 1,000 metres, and ending in a reservoir which measures 48 paces each way. This Shuwák was evidently, like Madiama, a station on the great Nabathæan "Overland;" and, subsequently, on the highway of the Pilgrimage-Caravan before the 16th Century, when the maritime road was laid out. It astonished us by the traces of immense labour, without yielding a line of inscription or even a mason's mark to clear up the question of its inhabitants. We determined it to be a huge *Warsah*, or workshop, and a settlement of miners. Shaghab, its neighbour, separated by a dwarf divide, and distant about seven miles to the southward, appears to have been the abode of the richer classes; we found there a better style of building, with glass and other *objets de luxe*. I came to the conclusion that the two combined to form the *Sáqua* which Ptolemy (vi. 7) places in N. Lat.  $36^{\circ} 15'$ , or about  $1^{\circ}$  (= 60 miles) too low.

From these poor remnants of past labour, and of industry now forgotten, we made our way to the shore at Zibá, passing the two less important ruins, El Khandaki and Umm Amil. The latter was noteworthy because it supplied us with the

finest specimens of smelted copper. The harbour village is probably the Phœnicion Vicus of Ptolemy (N. Lat.  $36^{\circ} 20'$ ); and behind the modern settlement there are signs of an older town buried in the sands. From Zibá we proceeded to the mountain and watercourse El-Ghál, lying a little inland of the pilgrimage-route, which here hugs the sea-coast. The gloomy block has yielded fine turquoises—or, rather, johnite—which, at Suez and Cairo, pass for Siniatic. The matrix is chocolate-coloured quartzose rock; and, in addition to the *Lapis pharanitis* of Pliny, the *Gemma turcica* of our Middle Ages, which gave the gem its modern name, one specimen contained silver. The Zibá diggings, ignored by the Egyptian Government, are well known to sundry adventurers. An Italian lately brought away turquoises worth considerable sums; and, to judge from a specimen set in a Bedawi's gunstock, they are not liable to change colour like the *mafka*, which the old Egyptians worked in Sinai. These men have also taught the Arabs the latest "dodge" in pearl-culture—inserting a grain of sand into the shell of the live oyster. On March 8th, we returned to El-Muwaylah, passing by the middle Jebel el-Kibrit, or "Sulphur hill," where M. Philipin had been working with a will. This second excursion brought back two bags of the true turquoise-matrix, with visible silver; worked slag, or obsidian, containing free copper; specimens of smelted copper and sulphur; and rock-salt from the Jebel el-Kibrit, which had been visited by the first Expedition.

No. 2 march ended with an ascent of the Shárr, properly El-Ishárah, "the landmark," the glorious "Hippos Mons" of Ptolemy, which backs El-Muwayláh. This trip gave us a good study of the Gháts of Midian, with their noble crests and walls of snowy quartz; their quaint chimney-tops, pins and pinnacles, domes, and parrot-beaks of colourless granite; and with the vast sheets of hard red felsite, and soft porphyritic trap, green and bottle-green, swathing them from the middle to the feet. The Shárr is very badly laid down in the hydrographic Charts, which ignore the names of the several peaks; and which, moreover, assign to the rock 9,000 instead of 6,000—6,500 feet above sea level. The main peculiarity is that the vegetation, instead of dwindling and diminishing with increase of height, as is the usual rule, gains both in quantity and quality. Near the summit it becomes distinctly Syrian; and we were pleased once more to meet the strong-smelling ferula, the homely hawthorn (*Cratægus*) and the juniper tree, with trunk thick as a man's body. Of this Scriptural "heath" (Jer. xvii. 6) we brought back branches and berries; and the latter, I hope, may be induced to find a home in England and Ireland.

Returning once more from the mountains to El-Muwaylah, we were delighted to find our old friend, the corvette *Sinnár*, which H.H. the Khedív had thoughtfully and courteously despatched to take the place of a "tin kettle" so uncommonly likely to drown herself as the *Aviso Mukhbir*. After a delay of two days, in order to sort out the party, and leave the sick at the fort, we began our exploration of South Midian, the third, the last, and the most interesting of our three journeys. Had I known what we do now, we should have opened at the south, and have devoted to it the greater part of our four months.

The first day's cruise ended at the noble port El-Dumayghah; which, situated only 30 miles north of El-Wijh, is so admirably fitted as a harbour of refuge for pilgrim-ships. It has been neglected by the charts, but the Egyptian staff officers carefully surveyed it. On March 24th we anchored in the dangerous cove of El-Wijh, the northernmost town on this part of the Arabian coast. It has greatly improved since my first visit in 1853, the reasons being increased traffic with the Bedawin, and the establishment of a well organised quarantine-station, with mole and lighthouse, barracks and bakeries. Unfortunately, about two years ago, the place of penance was moved northward to Tor, in the Sinaitic peninsula, where it has become a standing menace, threatening cholera, small-pox, and typhus, not only to the Nile valley, but to general Europe. I hope that the English and Egyptian governments will see the advisability of at once re-transferring the quarantine station to El-Wijh.

Here the expedition separated; MM. Marie and Philipin were directed to inspect a third sulphur-hill, distant some 25 miles down coast. They were completely successful; and they brought back, moreover, accounts of a classical ruin which appeared worth visiting. Meanwhile, accompanied by the other division, I proceeded southwards in the *Sinnâr*; and, after covering some 70 miles (dir. geog.) we came upon the ruins of El-Haurá, in N. lat. 25° 6'. Here, doubtless, lay the celebrated emporium, first Nabathæan, then Roman, or rather Byzantine, Leukè Kóme, the "White Village"—Whitby. After surveying its land and water, despite the turbulent Juhaynah, we returned to El-Wijh, and found that the 58 camels wanted for carriage had been collected by the venerable Shaykh Afnán, chief of the Baliyy. This tribe, unlike the Huwaytát, is of ancient and noble blood, supposed to be Joctanite, as opposed to Ishmaelite; it emigrated from the south before the days of Mohammed, and seized the lands of the Beni Tamúd or Thamudites, then the allies and auxiliaries of Rome. The Baliyy retain a flavour of old civilisation; and still show the mining instinct: this evident result of atavism will prove most useful when the old diggings shall be worked anew.

Leaving El-Wijh on March 29th, we attacked the interesting interior. The ruins called "Umm el-Karáyát," and "Umm el-Haráb," showed us, for the first time, scientific workmanship, shafts and galleries sunk and pierced in the solid rock; the object was to reach the white quartz, which veins the gray and other granites. After six short, slow marches, inspecting and surveying, mapping and planning, we debouched upon the fine mountain-girt plain of Badá, whose abundant waters and dense palm-orchards are celebrated far and wide. The Greek Badaís, and the Roman Badanatha (Pliny. vi., 32), which Ptolemy (vi., 7), places in the Lat. 25° 30' (instead of 26° 45'), it was the very heart and centre of Thamuditis. I may safely predict that it will still see better days.

From Badá we bent southwards,

And now the hills stretch home.

After visiting the quartz-field called "El-Marwát," we were compelled to take precautions; this frontier-country is swept by razzias of the

Anezah to the east and the Juhaynah to the south. Marching *militairement* is no pleasure when your camels, faint and feeble with hunger, can hardly cover 2½ miles in the hour. Thus creeping, we travelled down a succession of broad watercourses, showing glorious rocky scenery in the "Mountains of the lowlands of the Baliyy." The land may be described as one vast outcrop of quartz, which bars the Wadys, and rises in conical heads several hundred feet high. On April 8th, we reached the great Wady Hamz, which, I have said, separates the southern limit of South Midian from the northern frontier of the Hejaz. It is by far the most important feature of the kind in North-Western Arabia, the highway of caravans leading some fifteen marches into the interior, and the site of the ruined Nabathæan city, Madáin Sálih. Of course it is unknown to the Hydrographic Charts; Wallin, copied by the mappers generally, miscalls it Wady Nejd, and even the erudite Sprenger ignores it. The head, according to the Bedawin, is near Medina, and the mouth is in North Lat. 25° 55'. This and the enlarged limits of the Harrah were the geographical discoveries of the journey.

Upon the southern bank of the Wady Hamz, and facing the Ghat scenery to the east, lie the ruins of a shrine known as Kasr Gurayyim Sa'id, the "Palace of Sa'id the Brave." It is a startling contrast with its wild surroundings, this highly civilised *maison carrée*, a cube of white and mottled alabaster, measuring 8.30 metres each way. Mr. James Fergusson, whose authority in such matters few will question, compares it with the fane at Suwaydah in the Haurán, planned and described by M. de Vogüé (Pl. iv.). If so, it is late Roman, and dates from the days of Herod Augustus. Sa'id the Brave was a huge negro chattel, who carried off his master's daughter, built this "palace," and ate a camel for dinner, till the country-side, scandalised by the exuberance of his meat-diet, rose up and slew him.

From the Shrine we bent a little eastward of the direct route trending north to El-Wijh; and visited the immense quartz-field, known as Abá'l-Marú. Our *détour* was rewarded by the discovery of sundry ruins, and a wall-like reef of the white stone, some 200 feet high and at least half a kilomètre long. The rocks, too, were profusely veined with the variety of quartz called chalcedony, an agate used for seals; its fragments showed dendritic gold. I have no doubt that this is the mine "El-Marwah" or "Zú'l-Marwah," mentioned by so many of the mediæval Arab geographers. *Marú*, both in the classical and vulgar tongue, means "quartz;" and we have found it applied, under various modifications, to sundry features in Midian, especially in the parts adjacent to the Wady Hamz. I am disposed to translate Ophir by red-land; and to hold it, like Sheba and Havilah, a district, not a settlement; you must remember, however, that every traveller in Arabia has his own "Ophir." Marwah, for instance, in the hillock of Mecca, certainly signifies a single place of quartz; Marwát would be its plural; and, finally, Abú'l-Marú is the "Father of quartz," in other words, a place where quartz abounds.

On April 10th we ended our third excursion by returning to El Wijh. During the last 24 days we had inspected and mapped a linear length of 170 miles. This South Midian differs essentially



from the northern moiety. Whilst the latter extracted its argentiferous and cupriferous ores; the former worked for gold and silver. Moreover, though the section of the province near Egypt preserves few traces of the miner, here we find extensive remains where he has treated the rock carefully and scientifically. The whole western counter-slope of the lowland chain belonging to the Baliyy is one vast quartz-field, and, as might be expected, not one tithe of it has been touched. We brought back from the Badá plain specimens of spalled stone, each bit showing its little mass of pure lead—a rare metal. Gold was seen in the chalcedony-quartz and in the junction of rosy schiste veins with the quartz walls. Saltpetre is everywhere, and I have noticed the third or southern sulphur hill.

The second Khedivial Expedition, which disembarked in Arabia on December 19th, 1877, had now ended the work proposed to it. On April 18th the *Sinnár* corvette left the coast of Midian, carrying the men and mules which she had landed. There was only one death, a quarryman, who succumbed to ague and fever. The journey had covered, by sea and land, nearly 2,500 miles, of which some 600 were mapped by Lieutenants Amir and Taufik, of H.H.'s staff; and a few crucial stations were astronomically fixed by the Egyptian naval officer, Ahmad Kaptán. It had measured, and planned, and sketched the skeletons of 16 settlements, large enough to be called cities, still showing remains of extensive public works. Moreover, it had seen or heard of nearly thrice that number of villages and "ateliers." M. Lacaze stocked his portfolio with at least 200 *croquis*, oil-colours, water-colours, pencil drawings, and photographs. Besides the 25 tons of rich specimens collected for assay and analysis, we brought back to Cairo a small ethnological "find" of stone implements, rude and worked; the coins of ancient Midian mixed with Roman and Kufic; fragments of copper and bronze, glass and pottery; Nabathæan inscriptions and Arab tribe-marks; a box full of skulls; spirit specimens of zoology; shells from the shores of the Red Sea; and a *Hortus siccus*, whose interesting part consists of Alpine plants gathered at an altitude of 5,000 feet. Finally, Mr. Clarke, acting as commissariat officer, was diligent in keeping accounts, and assisted me in filling the meteorological journal.

Such, in the last quarter of the 19th century A.D., is the condition of the venerable country, whose name is for ever connected with Joseph and his brethren, with Moses and Jethro, with the wanderings of the Hebrews, with Gideon and Balaam, and with the heroic Bedawin, Zebah and munna. It is evidently far less civilised than it was in the 19th century B.C.

You now know as much about Midian as I do: instead of being a vision, a mystery, it has become to you a thing of reality. You will join me in lamenting the contrast between what it has been and what it is. Pathetic, indeed, is the view of its desolation; once the flower of Arabia Felix it has become a Petraea, a Desert. The incubus of destruction has sat for years upon its glorious mountains and luxuriant water-basins; the wild man, the father, not the son, of the wilderness, has done and is still doing his worst. Similarly, when the Romans ruled Africa Propria, and Numidia,

the regency of Tripolis numbered some twenty million souls; the population, then as thick as that of Belgium, is now reduced to two millions.

But the Anglo-Turkish Convention places Great Britain with reference to Arabia nearly in the same position as that occupied by Rome after the days of Augustus. I have a full and perfect faith that Midian, like many another province, will presently awake from her long trance, from her sleep of ages. She offers to the world, not a mine but a mining region, some 300 miles long, with an inner depth as yet unknown; and what the ancients worked so well we moderns can work still better. Let us look forward to the development of her mineral wealth under the fostering care of European, and especially English, companies. So we may expect to see the howling wilderness, like Algeria before 1830, rival the rich and fruitful province of Algiers in 1878.

Meanwhile, I have only to thank you for the patience and perseverance with which you have listened to my long story, and to bespeak your interest for the future welfare of the grand old "Land of Midian."

#### DISCUSSION.

The Chairman remarked that they had listened to a very graphic and exceedingly modest address, in which they had had scarcely a single description of the fatigue and hardships which Captain Burton had undergone. He himself was only a sort of feather-bed traveller, but, having been some little abroad, in Asia Minor and the Arctic regions, he could appreciate what one had to go through who undertook such a journey as had been detailed. Language would almost fail to describe what travellers had to suffer in those regions. The scorching sun of the day and the chilling temperature of the night, the hard fare they had to live upon, and the patience they had to exercise in contending with the rude people about them, was something most appalling. They had heard that night a man who had, perhaps, seen more of dangerous travel than any other man living, or, at all events, ranked amongst that select few who had opened up new and unknown countries to us—lands where the poetic vision could barely penetrate, and see what their future might be. Their thanks were due a thousandfold to all such men; for though they knew something of what they had endured, they could not say what might come. He could only thank Captain Burton personally for his great kindness in coming there to read such a paper; and he hoped they might have some interesting remarks upon it. Perhaps Prof. Tennant would have something to say on the geological part of the subject.

Professor Tennant said he was not prepared to say anything, there being no specimens which he could examine. He knew something of a gentleman (Mr. Milne) who had gone over a portion of the ground in company with Dr. Beke, and he had seen some of the specimens he had brought home. One or two of the statements made rather startled him, as, for instance, that pure lead had been found. He should like to know if it was really pure lead or an ore?

Captain Burton said it was pronounced by Captain Rose to be pure lead.

Mr. Lee Thomas asked if Professor Tennant had ever seen pure native lead?

Prof. Tennant said he had not, except under peculiar circumstances, where its existence could be accounted for. It had been found in volcanoes when the sulphur