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LECTURE.

Friday, June 26th, 1874.

MAJOR-GENERAL SIR HENRY RAWLINSON, K.C.B., in the Chair.

ON CERTAIN ROADS BETWEEN TURKESTAN AND INDIA, INDEPENDENT OF THE OXUS, OR OF ANY OXUS BOUNDARY.

By Colonel SIR FREDERIC I. GOLDSMID, C.B., K.C.S.I., &c., &c.

WE have recently heard here two instructive and interesting Lectures, one on Khiva, the other on the country skirting Khiva to the south; one describing a campaign of the day, which will ever be memorable among national military annals; the other describing a geographical boundary line, towards which the said campaign foreshadowed, as it were, a possible movement. It is true that a line along the right bank of the Lower Oxus has been declared terminal in respect of occupation; but the boundary pillar, if any be used, will hardly need a matter-of-fact inscription to serve a double purpose, and become an intelligible and expressive sign-post. And if certain definite objects, whether strategical or purely geographical, such as Merv and Herat, be considered especially provocative of discussion and speculation at the present day, in connection with England's Asiatic policy, I cannot suppose that the practised eye of the true Oriental politician will fail to rest upon those remoter parts of Turkestan, such as Kulja and Kashgar, where passing events are of even more immediate interest to British India, and more sensibly affect British influence and *prestige*.

Within the last year or two it is that, almost for the first time, we have begun, if not seriously and practically, at least with a sufficiency of light to see our way, to look around the limits of our Indian Empire, and study as well as realise our position in respect of neighbouring countries. And it may truly be said that never, since our earliest connection with the far East, have the immediate surroundings of British India presented so marked a combination of interests for its rulers and people as at the present moment. North and East we have to do with China, the relations with which vast dominion are no doubt rapidly developing from day to day. Little was it imagined, at the outbreak

of what may be called the Anglo-Chinese mercantile war, in 1840, or even during the spasmodic revivals of the same dispute which culminated in the graver hostilities of 1860, that new mutual interests, as between Great Britain and the Celestial Empire, would crop up a few years later on that immense tract of Central Asia stretching westward from the desert of Gobi to the Caspian. But so it is; and whether we take part or not in the settlement of difficulties which should, at least, be known to us on trustworthy evidence, neither the action of Russia or of China, nor the issue of events in Yarkand or the Ili districts, can be a whit less important to us than the Khiva expedition, or the determination of any Russo-Persian frontier whatever, east of the Caspian. West and north-west again, are Baluchistan and Afghanistan, and more remotely Persia and Khiva. The relative political importance of some of these countries has been acknowledged in England by recent missions; and the interest which they have all more or less aroused has been evinced by discussions in the press and lecture rooms.

There may be a difference of opinion as to the propriety of agitating these questions theoretically, on the ground that the speculations arising from such discussions are oftentimes unsound; or that, even when sound and logical, their publication to the outer world is unwise. But there can be no two opinions on the propriety of gathering and recording facts on which to build a theory and frame a policy. Now, in whatever form the Central Asian question is presented to us, whether prefiguring an aggressive movement, or as opening out new channels of commerce, it is clearly impossible to form true conclusions thereon, unless we know something practical and positive of distances, of people, of natural resources, and of climate, throughout those extensive regions which now constitute the scene of interest; unless, in other words, we have correctly and minutely estimated the Central Asia of our Parliament, of our clubs, of our daily press.

I may here mention incidentally an opinion lately advanced in a foreign journal, that Germany and Austria would benefit more than any other European States by Russian progress; an opinion taking into account not only internal reforms and industrial development, but also the increased influence of Russia, on her Asiatic frontier. The writer whose authority is given for this view, has further expressed belief in the great advantages for German trade to be derived from railways now under construction in Persia; and instances Khurasan as a fertile province, whose exports, naturally proceeding by Astrabad to the Caspian, would henceforth be conveyed by direct railway communication. Without denying that much of truth characterises the theory, I doubt the soundness of the basis which alone makes it applicable to existing circumstances. It would have been better in the first place to have ascertained whether railways are in actual construction at all in Persia: whether Khurasan is intended as an early field for their use when constructed; and to which port, south-east or south-west of the Caspian, the Khurasan produce would be conveyed for export? Then, perhaps it would have appeared that both physical and political difficulties were in the way of the desired result. Nothing easier than to

draw across maps, lines of railway and telegraph connecting important cities or centres of commerce; but construction must in these cases be guided by other considerations than the shortest and most direct road, and maintenance is often a more perplexing matter still.

One step in advance of the great Russian Empire, which, whenever proposed, has only been publicly declared within the last few days, has too much practical bearing on the mere question of maps and frontiers for incidental mention. It is the formation of a Trans-Caspian province, bounded by the Gurgan river on the south, and by Karis, on the east; whether Krasnovodsky be on the north or not, as stated, matters really little.

Now, should this be fact (and we may presume it is not pure invention), the subjugation of the Téké and Yamút Turkomans has a meaning beyond self-defence and the security of present possessions. It gives power to extend territory at least as far eastward as Merv; it gives power to a smart captain or subaltern of the Imperial Army to place his country's standard on any fortress which the subject Turkomans may have avowed or controlled on their own account; and it places at command of the new settlers a road to Afghanistan, perhaps above all other roads, of geographical and political value. To the mere cartographer such a step as this cannot be void of interest; and to those who follow from time to time his emendations, I commend consideration of this latest reputed change.

My present intention is, as much as possible, to eschew theory and to proceed to facts; to leave political speculation and conjecture, and substitute a real groundwork on which discussion, if it ensue at all, will at least be based upon accurate data. And in order to be practical and consistent in giving effect to the proposition laid down, as well as to bring personal experience to bear upon its treatment, I will submit a brief account of two roads between the Caspian and the Lower Indus, one commencing at Enzeli, the seaport of Resht, and terminating at Kurachi; the other commencing at Jacobabad, above the old Sind stations of Sakar and Shikarpur, and terminating at Bandar-i-Gez, the seaport of Astrabad. The one which may be reckoned, in round, but fairly exact numbers, at 1,870 miles, comprehends a section of the north and the whole breadth of Eastern Persia and Persian Baluchistan, together with the coast of Eastern Makran, under the sovereignty of the Khan of Kelat. The other, estimated at 2,020 miles, is through a large portion of Lower Afghanistan, and includes a considerable tract on the north, as well as east of Persia. The first of these roads I have traversed throughout; of the second my personal knowledge permits me to speak of about a thousand miles only, or from the Helmand to Tehran; but Dr. Bellew's careful journals of the marches of Sir Richard Pollock when proceeding to join my camp in Sistan, little more than two years ago, enable me to supply lacuna in personal experience by late and trustworthy authority. I may premise that any want of pure military colour in the picture, or absence of professional technicalities, must be attributed to the nature of the subject. For it need scarcely be submitted to the members of this Institution otherwise than as a truism, that the data requisite for determining the

passage of armies have a special significance also in a general and commercial aspect.

The high, steep and narrow mountain pass which defies the heavily-burdened or lightly-equipped soldier, if crowned with hostile marksmen; the waterless waste scorched by summer heat, or swept by bitter blasts of winter; or the constant and continuous lack of grain, fodder, or provisions of kinds for man and beast; are facts of equal importance, though in less degree, to the ordinary caravan, as to the columns of an army.

Salient points such as these it is the province of every traveller to note, in putting forward the result of his observations; and if with all their military speciality they wear a sort of civilian guise on the present occasion, their appearance will, it is hoped, be justified on the plea of forced association with generalities, and that whole mufti is preferable to a mixed costume.

The road from the south-west corner of the Caspian to Kurachi may be divided into four sections:—

Enzeli to Ispahan	= 445 miles
Ispahan to Karman	= 410 "
Karman to Bampur	= 375 "
Bampur to Kurachi	= 640 "
Total	1870 "

The first section is over a part of the country better known, perhaps, than any other to Europeans. Less than midway is Tehran, the capital; close to Enzeli is the large town of Resht; between Resht and Tehran is the city of Kazvin, and between Tehran and Ispahan are the cities of Kúm and Kashan.

From Enzeli there are about 40 miles of forest land to be traversed in the province of Ghilan. The low level of this fertile tract makes it feverish and unhealthy; but shelter from heat and ample supplies are, on the other hand, very important considerations, and both, for the distance given, may be depended on. But although villages, trees, and cultivation are not lost sight of after 40 miles, the aspect of the country changes; and lanes and forest are exchanged for the broad bed of a river and narrow artificial paths along the mountain scarps, or rough arbitrary tracks at the foot of overhanging hills. Much of the course pursued by the ordinary traveller depends upon the depth of water in the river, and like uncontrollable conditions; but at about 60 miles from his place of disembarkation from the Caspian steamer he has cleared all dense forest and vegetation, and risen upon a more open and generally sterile country. For the next 50 miles his journey is over the barren mountains dividing Ghilan from Irak to the Kazvin plain and city, and one pass is a stiff one indeed. The mere fact that in two marches, or from Rustamabad to Kharzan, the rise is from almost the actual sea level to a height of 9,000 feet, will suffice to show that here, as in the south, the change from the fringe of sea-board to the high Persian plateau, is not an insignificant item in a common place journey. Now it is, I believe, proposed to connect Enzeli and

Kazvin by rail, and Baron de Reuter's engineers have been engaged in ascertaining the best line to be chosen for the accomplishment of this important object. In any project put forward it is presumed that superfluous ascents and descents will be avoided, and the connection effected by a less formidable course than that hitherto pursued by caravans; but the one stubborn truth remains that the *plateau* must be reached from the seaboard, and that this *plateau*, at its lowest, has an elevation of some thousands of feet.

The road from Kazvin to Tehran presents no physical difficulties. It is over 90 odd miles of plain country south of the Elburz range. Whichever track be chosen, the mountains will be on the left, and the face of nature will present much the same aspect. The sky and the hills are charming; but the landscape is monotonous in colour. There is, as it were, one universal coat of drab, or *khaki* (as better expressed in India); villages and gardens are the darker patches and streaks upon it. A distance such as this, being less than a hundred level miles, with a populous town at either end—one the capital of the kingdom—need arouse no apprehension on the score of supplies, even though intervening population and cultivation be scant. Water should be procurable at all seasons from the near mountains. At Kirij, about 30 miles west of Tehran, there is a river.

The two main features in the high road from Tehran to Ispahan are a desert of some 40 miles' duration, and the passage of the Kohrūd, a mountain of 900 feet in height from the sea level, but far less from the *plateau*. Of the first I may say that, however near it is to the capital of Persia, the spot is very suggestive of isolation from a peopled world. There are caravanserais in the way which may afford shelter from sun or blast, but it is well to place no dependence on their supplies of grain or water. It is called by the natives the "Valley of the Angel of Death;" and aptly does Mr. Mounsey, one of our latest and most agreeable authorities on Persia, say: "No other name could better indicate the dreariness of this region. It is a succession of "narrow gloomy glens, shut in by parched volcanic hills, through "which the path runs over alternate patches of nitre and movable "sand. Not a blade of grass, not a solitary herb ever grows in its "lifeless salt-sown soil."* Of the second, except in winter, the passage is not hard or intricate; and in summer, or during the great heat of the plains, the climate of the presiding village and higher tracts is most invigorating. Before ascending from the more northerly side, the large towns of Kūm and Kashan are guarantees for supplies; and after descent on the south, the road to Ispahan is over a tolerably level country which, if generally dreary and desolate, is at least occasionally relieved by villages, caravanserais, and cultivation, and improves much towards the close.

The next section of 410 miles, from Ispahan to Karman, differs little from the last in respect of the large amount of desert and limited portions of cultivated land. But the road is of a much easier description, and one which might be traversed by carts and carriages as well as

* "A Journey through the Caucasus and Interior of Persia." Smith, Elder, and Co., 1872.

horsemen. Some hills are met with about 60 miles east of Ispahan; and these appear to belong to the Kohrud range overlying the Tehran road, but they are comparatively low, and might, it is believed, be avoided altogether by the traveller from the capital, who prefers a short and direct route to Yezd from Kashan. Irrespective of these hills, it may be said, without exaggeration, that the whole country from Ispahan to Karman can be driven over, for the most part, by a coach and four; only supplies are scarce in some places, and quite unobtainable in others. Between Ispahan and Yezd there are 50 miles of decided desert, and between Yezd and Karman, the second and larger half of our entire section under consideration, there are more than 70 miles of like character; nor is the rest of the way over a purely fertile country, except at long intervals, or near centres of commerce and cultivation, such as the two provincial capitals last named, or the villages of Anar, Bahramabad, and perhaps Muhammadabad, south of Yezd and north-west of Karman. One of these, Bahramabad, has of late years attained more than local importance, its productive resources having drawn thither the Hindoo trader from his native home more than a thousand miles away. There are very fine ranges of mountains seen at Yezd, and along the lines of traffic to and from that city: otherwise the general aspect of the landscape is flat and monotonous. The caravanserais are numerous and good. There may be occasional insecurity for single travellers or small bodies passing along the beaten track forming the highway; but an armed escort need not be large, or especially well equipped for purposes of self defence or to ensure immunity from all attack. Bakhtiaris and Baluchis are the reported marauders of these points; but a vigorous government could readily put a stop to their mischief if they were to set about the proceeding in earnest.

The third section of our journey is of 37½ miles from Karman to Bampur in Baluchistan; and this may be described briefly but in detail. From Karman to Mahun is over a barren tract of 20 odd miles; but Mahun itself is a flourishing village with more than 1,000 houses and many gardens, and should not be wanting in supplies. From Mahun to Raiun, more than 40 miles, is chiefly over a mountainous and dreary tract; but here again, Raiun itself is not a bad kind of village, though with hardly half, perhaps no more than a third of the population of Mahun. From Raiun to Bam, 24 miles, cultivation is very sparse, and waste land abundant, but there is undoubted fertility in the *Tahrud arrondissement*, which may be traversed in the way. Bam is a large town, and remarkable for its geographical and strategical position, as well as for its fortress. A word, however, on this place will not be irrelevant.

In 1810, Lieutenant Pottinger, travelling in hazardous disguise from Sind to Shiraz, passed through Narmashir, of which Bam is now the capital.

The Ghilzai Afghans, who had colonized it for nearly a century, had been dispossessed of the district only seven years before, so that the political *status* was one of transition. Bam was then the frontier town of the Karman province, and its fortifications had been so strengthened

to resist continual attempts at its reduction, that they were accounted "beyond any comparison the most defensible in Persia." Pottinger thus briefly describes them: "They have an elevated site, and at present consist of a very high and thick mud wall; a deep, broad, and dry ditch, with six large bastions on each face, exclusive of those at the corners, which are higher by many yards than the others; the whole is built of mud mixed with straw and fibrous substances, and there is one gate between the two centre bastions of the southern face. The citadel is on the highest part of the eminence on which the town is built, and is well fortified with a lofty wall and towers at each corner; the area thus enclosed, is entirely occupied by the Governor's palace, and buildings belonging to it."*

In his description of the town the same authority speaks of the ruins and gardens as testifying to the existence of a much larger place. Officially reverting to this after my first visit in 1866, I added: "Since he (*i.e.*, Lieutenant Pottinger) wrote, it has been the scene of an international struggle, which, added to an earthquake, resulted in the almost utter destruction of the town within the walls. Nearly thirty years ago the Commander of the Shah's Army besieged there the well-known Agha Khan Mehlati, then a rebellious Governor of Kirman. The fort was held for more than a year against the Royal troops. The shot marks in the walls prove that the matter was in earnest, but the capitulation appears to have been peaceably effected. It is now satisfactory to see that the more modern town, such as it is, can be built independently of fortifications. Estimating the houses to be about 2,500, and the population 10,000, I should say that not one-twentieth of the inhabitants live within the walls. Indeed, it seems to me that no residents are allowed there but the garrison and families with a few vendors. Through the kindness of the Governor of Karman, who gave me an order in his own handwriting to the Commandant, I was admitted to an inspection of the fort, a really interesting illustration of Oriental architecture. Pottinger mentions but one gate. That one is doubtless the same as that by which I entered, and leads by the main street and bazaar to the citadel. I am informed that there are two other means of ingress and egress, but saw one gate only. The citadel appears to be partially built upon natural rock, and is provided with a well of drinking water. I learn that there are two companies of infantry and a few artillery kept in garrison here. My impression is that these companies cannot be reckoned at their full strength, and that there may be 20 gunners. The towers were alive with red coats, and about 15 artillerymen were drawn out, under a Naib or Lieutenant, to carry swords as we passed towards the citadel; but what description of ordnance, if any, was under the large white cloth thrown over the two gun carriages I cannot determine. The men were generally well dressed and smart looking for Persian soldiers. An instance of smartness may be cited in the direct refusal of a sentry to admit me to the fort without a written order. It so happened that we had walked away from my lodging without bringing the essential docu-

* "Travels in Baluchistan and Sind." Longman, 1866, p. 201.

"ment. The sentry placed his musket horizontally across the half of the gateway which he could so protect, and his comrades filled up the other half. On my expressing approval of the man's conduct, one of our party came up and assured me that the *Yavar*, or Major commanding the fort, was one of the finest Officers in Persia, insinuating that the proof of discipline just witnessed was the result of efficient supervision."*

I have revisited Bam twice since the occasion in question, first on going to Baluchistan in 1871, and secondly on my way to Afghanistan in 1872. Neither time had we the chance of proving the smartness of the sentries, for the higher grades were inflexible in refusing admittance within the fort walls to any member of my staff; and I did not press it on my own account, being engaged in an independent political mission of some delicacy. But we were without the provincial Governor's order which had been voluntarily accorded me on my appearance as a plain European traveller: and this want might naturally be supposed fatal to the accomplishment of the desired object under any circumstances.

Bam is conveniently situated in a highway leading to Karman, Sistan, Bampur and Bandar Abbas respectively. The Karman road is also that to the capital, Ispahan and Shiraz. The Sistan road is that to Khurasan and the Caspian. Bampur is a gate, as it were, to Baluchistan and Makran; and Bandar Abbas is the sea-coast. My latest impression causes me to reduce the former figure of its fixed population to, at most 6,000; but has heightened rather than lowered my estimate of its geographical and strategical importance. 'It is said that the regiment stationed here is always from Tehran; and that *vice versâ*, levies constituting a Bam regiment would be sent to the capital.

From Bam to Regan is a distance of 60 miles, whereof two-thirds is through a country which deserves to be called fertile in Eastern Persia, however opposite the character it would obtain in our own land. I believe that, under a good Government, and with an accession of desirable immigrants, the second condition being a sure result of the first, this district of Narmashir might become a granary of no mean resources and extent. It is now rich in farms and grain fields, and is profusely intersected with canals and watercourses. For some few miles before Regan, and beyond Regan to the Bampur Plain, 100 miles in all, it is almost unbroken desolation; and there are four marches amid barren rocks, which, if not steep and hard of access, are tortuous and pathless enough to perplex large bodies at all seasons, and might, in summer, be simply impassable. The Plain itself is easily traversed, but water and supplies are scarce, and no villages worthy the name intervene until within 10 miles of Bampur.

This place can boast of some 400 habitations: of these, the Governor's and two or three more may be called houses. The fort is built on a long irregular mound, north, and on the higher side of which is the citadel, whence the walls run down in a southerly direction. There were soldiers and guns inside when I was there in 1866; but

* To Secretary to Bombay Government, dated 17th March, 1866.

the camp was on the plain below. A detachment under a *Sarhang*, or Lieutenant-Colonel, had arrived a day or two before me, but had taken a route north of mine from Regan, falling into my road at the last stage into Bampur. The drum, bugle, and word of command were constantly heard near my quarters. In 1871, when a second time at Bampur, I had the benefit of these daily sounds for more than a fortnight, and can answer for their bearing very close resemblance to those of a native Indian cantonment.

From Bampur direct control is exercised over the districts which are comprised in Persian Baluchistan. It is only within the last twenty years or so that any attempt has been made to consolidate these; the main object having been to add to the number of subjects and extent of territory under the Persian flag. The custom has been to inveigle or compel as much as possible the more influential Baluch chiefs to acknowledge the sovereignty of the Shah, and as fast as one was gained over, to employ him in bringing in another. The net rather than the sword has been the means usually employed to gain the desired end; but when this was found to fail, force has been adopted. When I was first at Bampur, the work of subjugation was proceeding with vigour; and the resistance which it occasioned rendered the country somewhat insecure. It is to be hoped, now that Persia has agreed to restrict her encroachments within a fixed line, she will turn her attention to a system of internal administration more calculated to content her Baluch subjects than heretofore.

Next for consideration is the road from Bampur to Kurachi, estimated at 640 miles; and here we have reached by far the most difficult section of the whole route attempted to be described. The Persian soldier, or *sarbaz*, capable as he is of marching continuously for extraordinary distances, and endowed with powers of physical endurance astonishing to Europeans, has been seldom sent for actual fighting purposes through the Makran passes to the sea coast. There is a chain of hard, steep, rugged rock which fences the highland of Bampur from the descent to the shores of the Indian Ocean; and once through these passes, all immediate help would seem obtainable from the sea. It is no easy matter to penetrate this *cordon* at all. I have tried two ways of egress; one by Sarbaz, and so on to Gwadar; another by a more westerly route through Fanooh, to Charbar. The first is the better adapted to our present purpose, being only 20 miles longer than the second, reaching a point 100 miles nearer Kurachi, and passing, perhaps, through a better description of country. Sarbaz is, to all appearance, a more flourishing place than either Fanooh, Benth, or Dehan; and Pishin and Parúd may be found useful halting-places; but it is absurd to suppose that any of them have material for provisioning an army. A demand for supplies to a detachment of 500 Persian soldiers would throw the whole country into utter confusion.

And if the difficulties of moving from Bampur to Gwadar be great from the causes last adverted to, what must they be for the 390 miles of barren coast from Gwadar to Kurachi, so far as the inland resources are considered? Setting these aside, or admitting the co-operation of ships for purposes of provisioning, the physical obstacles of country

would not be overpowering. For the greater part of the way, a good beach, or a road near the beach, and below contiguous hill ranges, is to be found; the most serious interposition being that of a line of almost perpendicular cliffs actually dipping into the sea, with no definite path at all for five or six miles. How to pass the "Malan"—undoubtedly the Malana of ancient writers—was the first really hard problem which presented itself to those Englishmen who set up the Makran Land Telegraph in 1862-63, working from the eastward. It was solved by a long span from the beach to the top of the cliff, and by carrying the line over the level space above to a point whence it could drop, and again find its way along the sea shore; but the process could only be effected by getting tons of iron posts and wire up 2,000 measured feet in height. Such a road could clearly not be attempted by a marching body, however small, who, to clear the Malan, would have to make a 40 mile *détour*, as I myself did with an escort of Sind Horse, by a zigzag passage among steep mountains. Mr. Walton, Director of the Makran Coast Telegraph, wrote to me, when completing his work at Gwadar, in April, 1863:—"I need not tell you of the physical difficulties of the country we have come through. The want of water in many places has driven us to endure great hardships. A body of 25 Europeans and 600 natives passing through this utterly barren country must expect to meet with very great difficulties. Often I have been obliged to prohibit ablutions of any kind, and to place guards with drawn swords over dirty puddles. Of course, all had to be fed from Kurachi, and the posts being all of iron, brought from England, were distributed eighteen to the mile, and required many camels, which were likewise almost entirely supplied with provender from Kurachi."*

The aspect of the country traversed is indeed desolate, and the inhabitants are few. Yet are there gems of wild, romantic scenery to be discerned among the Hinglaj mountains, especially in the approach to the shrine of the Hindu pilgrims. Fixed population is almost entirely concentrated, as a rule, in the fishing villages, such as Sonmiani, Ormara, Pasni, and Gwadar. The nomads are found occasionally in small bodies, where there is cultivation, water, or other life-sustaining attraction, and their presence is invariably signified by the use of the word "khalk," i.e., a collection of human beings. Cultivation, however, except at the villages, or in their immediate precincts, can hardly be said to exist. Fodder for cattle is chiefly grazing for camels, and even this is not always procurable. When I marched from Kurachi westward in 1861, we laid in a stock as best we could. Water was, upon the whole, sufficient for the wants or our party, and we numbered more than 60, inclusive of Europeans.†

As regards the water supply, however, I kept a record for every march, and attach a copy to the present paper for reference if required.‡ But in this respect very much depends on the seasons, and I have

* "Proceedings of Royal Geographical Society," vol. vii, 1862-63, p. 47.

† I may be pardoned for repeating here my own words in "Telegraph and Travel" (p. 620-21) now under publication.

‡ See Appendix.

little doubt that a rainless year or two would be severely felt on the Makran coast. Of the *khaurs*, or salt water creeks, which, met by mountain torrents from inland, form the mouths of rivers, I officially reported the names of no less than 27 between Sonmiani and Jask, a distance of 700 miles. Half the whole number I had myself traced. The beds were in many cases of considerable width, defined by high, steep banks, which at times receive large volumes of water, and become on the sea side often accessible to smaller craft. Were the coast road to be put into civilised order, bridges would be in frequent requisition.

But the last and most material fact to be borne in mind, as connected with this particular route, is the facility with which British India is entered from the westward. There are no steep mountain chains to be traversed; no rugged passes or defiles to be threaded to change the scene from Baluchistan to the valley of the Lower Indus. Whatever obstructions or dangers may be anticipated in the Khaibar or Bolan; or whatever objections may be raised to the use of less frequented passages through the Sulimania range, or the still wilder mazes which shut in Sind to the westward, nothing of the kind is apparent in the easy bend of the coast which turns the angle formed by the Indian Peninsula with the Baluch seaboard. And from Sonmiani to Kurachi the hill ranges intervening have become, as it were, expended in importance, and are no longer of any formidable height, extent, or steepness. The only approach to a pass is called the "Lakh Badok," whence the descent to the lower ground leads at once to the Hab river, which marks British boundary.

In further illustration of Eastern Makran and the coast, I quote from an old report submitted to Government on the occasion of my mission there in 1861, a few passages which may be found of interest:—

"A regiment marching with commissariat along our route would no doubt be put to great shifts for supplies, if dependent on the country. The least scarce article of ordinary consumption would perhaps be meat. Sheep and goats are not wanting near the sea. Grain is scarce indeed, and would have to be carried. There is a tolerable market for necessaries at Sonmiani and Gwadar, one somewhat inferior at Ormara, and none to be depended on at Pasni. Ormara and Gwadar, the first especially, were rather exorbitant, but this is not surprising, and the occasion was not one to demur.

"The forage procurable was not always nutritious, but it never actually failed; and the horses, with little exception, kept excellent condition throughout the seven weeks of our march, and indeed up to disembarkation at Kurachi. As a rule, I think, the camels were better off in this respect than the horses. They never were without fodder of some kind, and often found it of the very best description. Beyond Ornuara the date palm became more and more frequent, the babul and tamarisk continued to thrive, and the wild grasses and vegetation of all sorts can scarcely be said to have diminished. Perhaps no better or more abundant grass was discovered than near the sea beach leading to Gwadar. Cultivation was indeed rare, and no-

"where but in small patches. It may be limited to wheat, *jowaree*, "*sirao*, *moong*, and cotton, exclusive of the plots of garden at Gwadar and near Sonmiani. The cotton I remarked at the back of the Kapar promontory. In many places in the Kolach district are 'bals,' or plantations of palms, marked off by artificial *bands*, constructed to retain the rain water."

Such, then, is the country for the 1,870 miles between Enzeli and Gwadar. The distance might be diminished by following, here and there, a more direct track than that laid down; but supplies would be less certain, and more obstacles to progress would arise. In Makran I believe the coast line to be the best, because the parallel valleys inland offer no ready access to British India. The passes into Béla and Sind would present very grave difficulties. We cannot contemplate the successful passage of an army, according to the European acceptance of the word, through even a third of the whole distance named; unless, indeed, the whole resources of Persia and Baluchistan were combined for its provision, and the inhabitants, one and all, not merely disposed, but determined, to make its way smooth.

I feel compelled to differ from those who cite the conquests of Nadir Shah, more than a century ago, in example of what might yet be done by any possible invaders of India. The *prestige* of this eastern Napoleon was, it must be remembered, immense. It had not only reached, but had been keenly felt in Delhi before the conquering army had arrived. There was no actual religious war—the contest was between vigorous Muhammadanism and effete Muhammadanism. Nadir had not, like Cæsar, come and seen, when he had conquered. His way had been prepared by circumstance, and as he progressed from day to day, his army of invaders increased. There must have been more accessions by voluntary recruits than decrements by death or desertion. A Kizilbash in his camp reported from Jalalabad: "He has 36,000 horsemen with himself. * * * After morning prayers he sits on a throne, the canopy of which is in the form of a dome, and of gold. 1,000 young men with royal standards of red silk, and the lance tops and tassels of silver, are disposed regularly, and at a proper distance. 500 beautiful slaves, from 12 to 20 years old, stand, one-half on his right hand, and the other on his left. All the great men stand fronting him; and the Arzbégi stands between, in readiness to present whatever he is desired, and everybody has his cause decided at once: bribery is not so much as known here. He has particular information given him of everything that passes; all criminals, great and small, rich and poor, meet with immediate death. He sits till noon, after which he dines, then reposes a little; when afternoon prayers are over he sits till the evening prayers, and when they are over he shoots five arrows into the *Khak Tûdah*, and then goes into the women's apartments."*

This kind of picture is, I think, inapplicable to these more practical times, when even the imaginative Oriental mind is prone to accept matter of fact limitations to the pomp and power of Oriental heroes, testing their significance by hard but healthful comparisons.

* Fraser's Nadir Shah: edition 1742, p. 142.

The country we have last gone over is, however, mainly interesting to us by history more ancient than that of Nadir. It is the ground traversed by Alexander and his Captains on return from India, while Nearchus was moving his ships along the sea coast, leisurely enough to take note of harbours and landmarks. Names now extant in Makran may be readily identified with those mentioned by Arrian and the geographers Strabo and Ptolemy.

As regards the people, I do not believe that those who, from less frequent contact with Europeans and comparative remoteness from the so-called civilization of a capital town, are held to be the ruder classes, are so dangerous or inveterate in their prejudices with respect to foreigners as their more polished brethren. The cultivators in Persia may be reckoned peaceful as the fishermen of Baluchistan; but the Persian who does not settle down to agriculture makes a hardy, frugal, and enduring foot soldier, or a smart, bold, and intelligent trooper. The cavalry in Karman and Baluchistan is not by any means to be despised. Lightly armed and equipped, they appear well adapted for the service required at their hands, and if this be not precisely what is expected from European dragoons or *chasseurs*, it is not necessarily of a subordinate character in military parlance. The Baluch of the hills is naturally a fighting man, but neither in material or pluck can I call him superior to the Persian. There would be no lack of good soldiers from Kurachi to the Caspian if there were only available the skill and patience to discipline and turn to account the raw material.

Now to review briefly the route from the Sind border to Kandahar, and thence to the Caspian through Sistan and Mashhad. This I have reckoned at 2,020 miles, according to the road taken by Sir Richard Pollock and Dr. Bellew. Jacobabad, whence the start was fairly made, is, I need hardly explain, a flourishing military frontier station, formed by the distinguished Officer whose name it bears. I myself became first acquainted with it more than 20 years ago as Khangarh, but it had then fairly entered its transition state, and was not, as others may remember it, an obscure and insignificant collection of huts on the Sind border of the desert. It is 28 miles from the large town of Shikarpur, which again is 24 miles from Sakar, on the Indus. Three miles on its western side is the present line of British frontier.

I propose to divide General Pollock's journey to Banjar, in Sistan, the point at which he joined my camp, into two sections—

- 1st, one of 515 miles, from Jacobabad to Kandahar; and,
- 2ndly, one of 425 miles, from Kandahar to Sistan.

From Banjar, whence we all moved together to Tehran, I make the two remaining sections, one to Mashhad of 580 miles, and one to Bandar-i-Gez, S.E. of the Caspian, of, roughly, 400.

Without attempting to describe my own journey from Bandar Abbas to Sistan, in which province I remained through the whole month of February and part of March, 1872, I take up the record of the party about to enter Afghanistan.

Their first march was one of 35 miles, to Bashori, a village of 80 houses, with corn cultivation, but a precarious water supply, across a

desert well described as presenting a "wide smooth surface of hard "dry clay, level as a billiard table, bare as a board," without a pebble, a blade of grass, or any distinguishable feature but the caravan track. From Bashori there are two roads to Kandahar, one north to the Bolan by Bagh and Dadar, another west, by Gundava, to the Miloh Pass. The closing of the Bolan rendered compulsory the selection of the latter, though the longer by 190 miles. In eight marches our party arrived at Khozdar, a distance of 125 miles from Bashori. For the first 40 miles to Kotrah they moved over a level and partially irrigated tract, passing the fortified town of Gundava, for the rest of the way the country being "dreary, desolate, and wild."

According to Bellew, "mountain follows mountain in a monotonous "succession of bare, rugged rocks, which, even in the winter midday "sun, radiate an uncomfortable degree of heat; whilst dale and defile "succeed each other, with no more striking feature than their wild- "ness and poverty in the one case, and their rugged narrowness in "the other. In the whole distance from Kotrah to Khozdar there are "but two permanent habitations, about thirty houses in each." The Miloh, better known as the Moolah Pass, may be said to extend from Pir Chatta to Gaz, a distance of about 50 miles, is easy, well wooded and watered, and presents no physical obstacles; "the ascent is very gradual, the rise being about 3,350 feet." Khozdar, though it occupies an important position on many maps, is no town, but possesses a recently built oblong fort with bastions, loopholed and crenelated curtains, wanting, however, a ditch. It has two guns, and a garrison which may be reckoned at 150 men, artillery and all included. The valley of Khozdar is one of the principal corn-growing districts in the whole country.

From Khozdar to Kelat is about 100 miles, by a succession of tablelands, separated by low ridges running east and west, and rising gradually one above the other up to 2,850 feet. So that while an approximate elevation given to the former made it 3,850, the latter was recorded at 6,700 feet. When our travellers passed, the whole tract had a dreary look; but in summer the picture is said to be reversed. Water, however, is scarce.

Kelat, capital of the state of that name, and head-quarters of the Khan, is a fortified town, built at the extremity of a ridge of bare rocky hill, and on the plain at its foot, with 3,500 houses, and some good bazaars. The valley is populous, and highly cultivated. There are many villages and walled gardens clustered together east of the town, the cultivation is rich, and water in abundance from numerous springs in the adjacent hills, and from a large clear stream that flows on a pebbly bottom past the eastern side of the town.

From Kelat to Lora Kushlak, 119 miles, the route is through a narrow, difficult, and stony pass, called the Laghani Kothal, into the Mungachar valley, with its cultivation and fortified villages, thence up a moorland tract, between mountain ranges and over the Lower Mastung alluvial plain, to the Aman Ullah stream, nine miles beyond which is the fortified town of Mastung, having a thriving bazaar, and 1,200 houses, and placed "in the centre of a very populous and fertile

"valley." It is worthy of mention that here the gardens produce "the apple, apricot, plum, cherry, quince, pomegranate, almond, a variety of grapes, and the mulberry;" while the fields have "wheat, barley, and maize, lucerne, madder and tobacco." The course was next through corn-fields, followed by a sandy tract and a gradual ascent up to the Neslipa Pass, estimated at 6,000 feet. On the west of this was observed the high snow-covered Chahlitan, and east was a lower range. The descent was gradual over a rough stony surface, and led to a road skirting the vast plain known as the *Dasht-i-bedaolat*, and thence to the Shal valley at Sariab. Dr. Bellew's own words will be here interesting:—

"The valley of Shal is very populous, and highly cultivated, the fields being irrigated from numerous Karez streams. The soil, however, is very strongly impregnated with salines. The fort, Kwatta, as it is called by the Afghans, occupies the summit of an artificial mound, and wears an appearance of decay. Around it lies the town of Shal, enclosed by fortified walls. It is about the same size as Mastung. The garrison of the fort consists of 100 infantry, mostly Afghans, and about 40 horsemen; there are also a few artillerymen, who take care of the single gun here." Another 16 miles brought the party to their next station, having been met on the way by their Afghan escort, who had come thus far to relieve the Kelatis, and under whose charge they threaded the narrow Murghi-tangi gap, whence, by a steep descent into a glen, they reached the valley of Kushlak.

From Kushlak to Kandahar city is about 135 miles. This distance was accomplished in nine stages, averaging 15 miles each. Part is over plain country and cultivation (in which section the names of the Peshin valley and villages of Haidarzai and Haikalzai will readily be recalled to mind); part over rugged and undulating tracts; part again involves ascents and descents, and working through passes rendered in winter especially difficult by frost and snow. The fourth march over the Churga Pass, clearing the range familiar to us in Indian military history as the Khojak, was one of seven miles only. 7,400 feet above the sea is the approximate elevation recorded for the summit.

Kandahar needs no new description; but the latest estimate of the population may be interesting. Of the reported 5,000 houses, one-fifth are unoccupied, and the number of inhabitants is reckoned at 15,000. "The district contains upwards of 200 villages, ranging in size," according to Dr. Bellew, "from 30 to 350 houses." Estimating the district village by the town houses, the result would show a district population of more than 150,000.

The distance from Kandahar to Kaleh-i-Bist is nearly 100 miles, and was divided by our travellers into five stages. Passing amid corn fields, canals, walled gardens, and villages, and skirting the hills on the left bank of the Arghandab, they crossed that river to a tract of a similar character on the right bank, then following its course generally until they reached a point where the road bifurcates, leading due west over a desert country, and west-south-west along the Arghandab. A general direction of west by south, with an occasional zigzag in

detail along the bank, brought them to the left bank of the Helmand, and eventually to Kalch-i-Bist, situated just above the junction of the two rivers. The sources of the Helmand and its tributaries must be looked for among the mountains of the Hazareh and wild little-explored regions between Herat and Kabul. The Koh-i-Baba is said to mark the actual rising point of the main stream.

Dr. Bellew reports as follows:—

“The country from Kandahar to Kalch-i-Bist is for the most part waste land, and void of water. The course of the river for a width of four or five miles is populous, well cultivated, and irrigated from numerous canals, but all to the north of this tract is a wide waste. Many of the canals are deep and narrow, with high banks. Where not bridged, they offer serious obstruction to the traveller with laden cattle. With a little labour, however, they can be easily made passable, without obstructing the flow of the water. This is effected by ramping down the sides, and filling the bed of the stream with fascines of the thorny bushes growing on its banks, by which process the stream, instead of being a deep and narrow one between high banks, becomes a broad and shallow one between gradually sloping banks.”

From Kalch-i-Bist to Rudbar, a distance of 200 miles, the route is along the left bank of the Helmand in a southerly and south easterly, then westerly direction; and the greater part of it, that is, from Hazarjuf, the first station, a long march of 40 miles, to Rudbar, is called the Garmsir, or hot region. There is a good deal of pasture land and of cultivation, and there are many villages and huts of armed tribes found on the way; but there is also much waste land, and there are many tedious and unproductive sand hills. The Helmand is in parts from 250 to 300 yards broad; in parts as much as two miles. The channels are either dispersed, or form into a single stream of about 80 yards in breadth. Dr. Bellew's record shows that Rudbar was reached in ten marches from Kalch-i-Bist.

From Rudbar to my camp at Banjar the travellers from Afghanistan made the distance, in a somewhat circuitous course, about 125 miles, of which 100 were, as it were, in continuation of the road to Sistan, down the left bank of the Helmand, and 25 miles were through the lavishly irrigated and fertile lands of Sistan Proper, or Persian Sistan.

Having joined camps at Banjar, from this point we marched all together to Tehran. There is no need to describe the intervening country for the whole distance, as at Shahrud the road branches off to Astrabad and the south-east corner of the Caspian. From Banjar to Mashhad, the road northward to Lash, a fort and village on the Farrah river, is over the reeds and dry bed of the so-called Hamún or Sistan Lake, among ruins and little-peopled tracts. From Lash, northward again to Kalehkah, the villages and cultivated spots are scarce; and the change of course to the west and over the Harud river is to utter desolation, more or less relieved as the village of Duruh is approached. Hence to Birjand the country is a succession of mountains and valleys, but the road is easy even across the passes,

there are tolerably flourishing villages, and cultivation is not quite wanting. Birjand is a tolerably large town of 12,000 inhabitants, nearly 5,000 feet above the level of the sea, the modern capital of the large Káian district of Persia. It is about 250 miles from Banjar. Between 60 and 70 miles to the north is Káian, the old capital, to reach which we made four very pleasant hill marches, one of which gave an elevation little short of 7,000 feet. From Káian to Bajistan, 90 odd miles, our course was among mountains and across plains; frequently also skirting plains and hugging the mountains, to keep in with the richer villages and cultivation and avoid the Turkoman marauders. 87 miles further over a generally desert country, dotted with an occasional village, and presenting to view to the west the great salt desert of Khúrasan, we came upon the town of Turbat-i-Haidari, which is the centre of *quasi* abundance, whether of grain, fruit, or vegetables. Hence to Mashhad, 82 miles, there is plain, mountain, and plain again, with sparse cultivation.

Mashhad is a city with 70,000 inhabitants, the capital of Khúrasan. Hence to Shahrud, a distance of 290 miles, the high road passes through the large towns of Nishapur and Sabzawar, and one flourishing village called Mehr. Set aside the vicinity of these places and the mountainous 30 or 40 miles between Mashhad and Nishapur, and the journey is desert and monotonous, for the most part through a tract infested by plundering Turkomans. Shahrud is a town of 8,000 inhabitants, whence there is a road to Astrabad, which is reputed to have 18,000. The distance between the two places is only 75 miles, but there are three chains of mountains to be traversed, one of which, the Vijmanu, is estimated at 9,250; one, the Jilin-Bilin, at 7,420, and one, the Ali-abad, at 6,525 feet in height. From Astrabad the road to Gez has been recently estimated at 33 miles, of which 15 are through an inhabited, a well-cleared, and a well-cultivated country, and the next 18, to the sea-coast, are through an uninterrupted forest.

The Russians have a settlement at Ashurada, not far from Gez. It is said they have offered to build a pier at the latter place, but that the Persian Government has declined to avail itself of the offer.

We have now gone through, and I fear in wearisome detail, the two routes which I had proposed to your consideration, as specimens of the country between the Caspian and British India. This is, it will be observed, not only irrespective of any boundary line north of Afghanistan, but of the Khaibar or other approaches to the strictly north-west frontier. Although one of the lines described shows a few miles more than the other on paper, I think we might by careful study of the country, and alternative cross branches here and there, bring them both to much the same figure, a *maximum* of 1,800 and *minimum* of 1,500 miles. Sistan and Kandahar are the main features of the upper, as Karman and Bampur are of the lower route; but between Kandahar and the Indus, if not the Khojak and the Bolan, equally dangerous and more impracticable country intervenes by anything like a direct road; and between Bampur and Kurachi full 600 miles are over, for the greater part, a most primitive and inhospitable tract. The Afghan-istan route, and character of the people in and around it, have been

proved by troops as well as reported on by travellers, and such experiences are for Englishmen, military as well as general. It is to Makran that I cannot but think more attention should be given; and lest future exigency demand advance of frontier, let us at least know what are the physical features of the country east and west of us, so that the *cordon* may be thoroughly understood from the Sulimania range on our right hand to the seaboard of Makran on our left.

For my own part, and I speak with a certain personal experience of a Perso-Afghan as a Perso-Baluch frontier, I should like to see a railway from Herat, or some point in Central Asia, to the Helmand, and from the Helmand to Gwadar; and though I cannot hope for *that*, yet I may hope to see the coast of Makran, from east to west, one of the links of the great line,—call it Euphrates Valley or by any other designation,—which must eventually connect London and Kurachi, or at least England and India.

APPENDIX:

Memorandum of the Water Supply on the Makran Coast, or between Karachi and Ormara; from Notes by Major F. J. Goldsmid, employed on a Special Mission in 1861-62.

BEFORE THE RAIN OF JANUARY, 1862.*

Names of stages.	Distance by measurement.		Remarks.
	M.	F.	
1. Hubb	15	4	Good water from river; supply abundant.
2. Karrarce	17	—	Water from wells, brackish but drinkable. Supply sufficient for the day. More obtainable on the line of march.
3. Sonmeance...	16	2	Water from wells, brackish but drinkable, and sufficient. These may be dug at about 6 feet, and are at first tolerably sweet. More procurable on the line of march from Karrarce.
4. Buddo	22	1	Water sufficient and good from river. Wells on the line of march.
5. Chur.....	11	5	Water from depressions of river bed; brackish and scarce. Well on the line of march, with plot of grass and babul trees.
6. Por.....	17	7	Water from wells in the bed of river tolerably good and sufficient.
7. Hooke.....	7	—	Water scarce and indifferent at the one well available; but good water found at two miles' distance towards the sea, and again at four miles W. at Supput.

* Old system of spelling retained, as in force twelve years ago.

BEFORE THE RAIN OF JANUARY, 1862—*continued.*

Names of stages.	Distance by measurement.		Remarks.
	M.	P.	
8. Sungul.....	12	—	Water good and sufficient from wells dug in bed of river.
9. Aghor.....	11	2	Water from river good and abundant. Well at Haddce on line of march.
10. Harrian	15	3	Water abundant and good from River Hingor; also procurable from same source on line of march.
11. Shirkoomb...	14	2	Water from rain collected in the "Koomb" or natural basin at the foot of hills. Good and sufficient for the day.
12. Gaddhgarh ..	22	3	Water good and sufficient from a "Koomb" about half a mile distant; also procurable in a small quantity at Jikkee Shor on the line of march.
13. Manhejee....	18	7	Water tolerably good but barely sufficient, from depression in bed of river. Procurable in small quantities from same source on line of march.
14. Ormara.....	19	4	Water from wells brackish, but better obtainable from wells at five miles' distance. New well dug, at 4½ feet, at Ormara.

AFTER THE RAIN OF JANUARY.

15. Bussolc.....	21	3	Water plentiful but muddy, from off-shoot of river. More obtainable in abundance in the neighbourhood or on line of march, owing to late rains.
16. Kingarhee ...	14	4	Water from Kwarree stream sufficient; more on the line of march.
17. Moondree....	15	1	Water from Moondree hill stream. Good and just sufficient. More on the line of march.
18. Kandi Shor..	20	4	Water from the "Shor" stream good and sufficient. More on the line of march, and at Barangoli river a little W. of camp.
19. Pusnee.....	20	—	Water brackish from well, but good and abundant from Shadikhor, at three miles' distance. Abundant from rivers and depressions on line of march.
20. Gorrana.....	9	5	Water from rain collected in hollows between sand hills; at other times said to be procurable from wells at 3 or 4 feet.
21. Koonbec.....	18	7	Water muddy, but sufficient from late rain; abundant on line of march from hill streams flowing freely as we crossed.
22. Lakree or "Kurecr" ..	16	—	Water from depressions supplied by rain, good and sufficient; more from Sāwar river and elsewhere on line of march.
23. Baramba	15	3	Water from river indifferent, but good and abundant on line of march, owing to late rain.
24. Gwadar	20	4	Water from wells good and sufficient.
Total.....	392	7	

SIR HENRY RAWLINSON: I am sure you all must have listened with great interest to the paper which has been just read by Sir Frederic Goldsmid. I have been over a great deal of the country, and can testify that all the descriptions are thoroughly accurate. One essential point which he has brought to our notice, is the absolute impracticability of the southern road for the march of an Army. A country where there are no supplies to be obtained, and where there is an entire want of water, cannot be thought of for the passage of an Army. We may therefore dismiss from our minds all fear of danger from that quarter. If any hostile demonstration should be made against India, it must be by the way of the northern line described, which would not, however, be so tortuous as that laid down on the map. A tortuous line has been drawn on the map and adhered to in the description, in order that it should have the authority of direct personal observation. For instance the road makes a considerable *détour* by way of Khozdar to Kelat, while the line through the Bolan pass is direct and much shorter. The road from that point to Kandahar, thence to Herat, and so on to Meshed, is all the way well supplied. Kandahar itself is a very rich province, and all the way to Herat, the road lies through a rich and populous country. If any danger does approach India, undoubtedly it will be through that quarter, and I think, therefore, attention should be especially directed to Merv and Herat. The question of a military invasion of India is, however, a very large subject, and one that it would be impossible to discuss on the present occasion. I simply wish to direct attention to the route by which alone an Army could march. Sir Frederic Goldsmid has also spoken of a railway through Persia, which he hopes may sooner or later be constructed. If ever a railway, however, should pass through Persia, it will follow the Northern line, for the country along the Southern line, offers no encouragement or facilities. In the course of time I think it probable that a line of railway will be drawn from the Mediterranean through Persia, by way of Tehran and Meshed, and so on to Herat and Kandahar, and through Sinde to the Indus. I am able to say, from personal observation, that from the western frontier of Persia to the Indus, there is absolutely no physical difficulty whatever to be encountered; there is no pass, indeed, which an engineer would think anything of. The two Afghan passes of the Khojak and Bolan are nothing of any moment. The Bolan, save for about a quarter of a mile, is so open that you might drive a coach and four the whole way; while the Khojak hills are composed of a soft sandstone, which might be cut through with the greatest ease; and besides, if necessary, the Khojak pass could be readily turned. We may have to wait; but 50 or 100 years is, after all, not much in the history of the world; and within that time there may be, I think, such a railway constructed through Persia. I am sure you will allow me to return your thanks to Sir Frederic Goldsmid, for his very able and interesting paper