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'Reconnaissance through Baluchistan and Seistan, 1897'

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Reference	Mss Eur F111/300
Date(s)	1897 (CE, Gregorian)
Written in	English in Latin
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About this record

This volume is a confidential report, printed at the War Office, by Harrison and Sons, printers in ordinary to Her Majesty, in 1899, and authored by Major George Washington Brazier-Creagh, Intelligence Division, War Office, concerning the resources, administration and general affairs in Baluchistan and Seistan [Sīstān] following his political mission in 1897. The report contains an introduction by the author, (folio 4), dated 5 December 1898, in which he mentions that details from the report are being incorporated into the Baluchistan Gazetteer and Route books. He also pays tribute to Colonel Bell and Captain Henry Dundas Napier who preceded him, as well as Captain Arthur Henry McMahon and George Passman Tate. The text of the report is accompanied by footnotes and section headings appear in the left and right hand margins.

The report includes a table of contents on folio 5 with the following five chapters:

- 'Chapter I. General Account of Journey across the Baluchistan Desert' (folios 6-8), including details of incidents en route, future trade prospects, danger threatening commercial prospects, and a list of leading merchants in Seistan;
- Chapter II. Russian Designs and Political Consideration' (folios 8v-10), including details of future policy, approaches to Seistan, alternative routes, influential Sardars of Seistan, treatment of refugees by the British Government, and the feeling of the people;
- 'Chapter III. Resources and Population of Seistan' (folios 11-24), including details of

administration, fertile places, a list of villages, climate, seasons and winds, sanitation, population, transport (camels, donkeys and horses), windmills, agriculture, industries and trade, Camel Corps, sport and shooting, locusts, and fish;

- 'Chapter IV. Exploration of the District in the West and South' (folio 25), including details of crossing the Dasht-i-Shelag, pollution of wells, character of country, routes, and pilgrimage;

- 'Chapter V. Land System - Revenue and Productions &c' (folios 26-29), including details of *ijaras* [*ijārah*], tenant rights and responsibilities, hardship of tenants, collection of revenue, culturable area, annual yield, surplus grain, irregularity and delayed water supply, and ancient ruins.

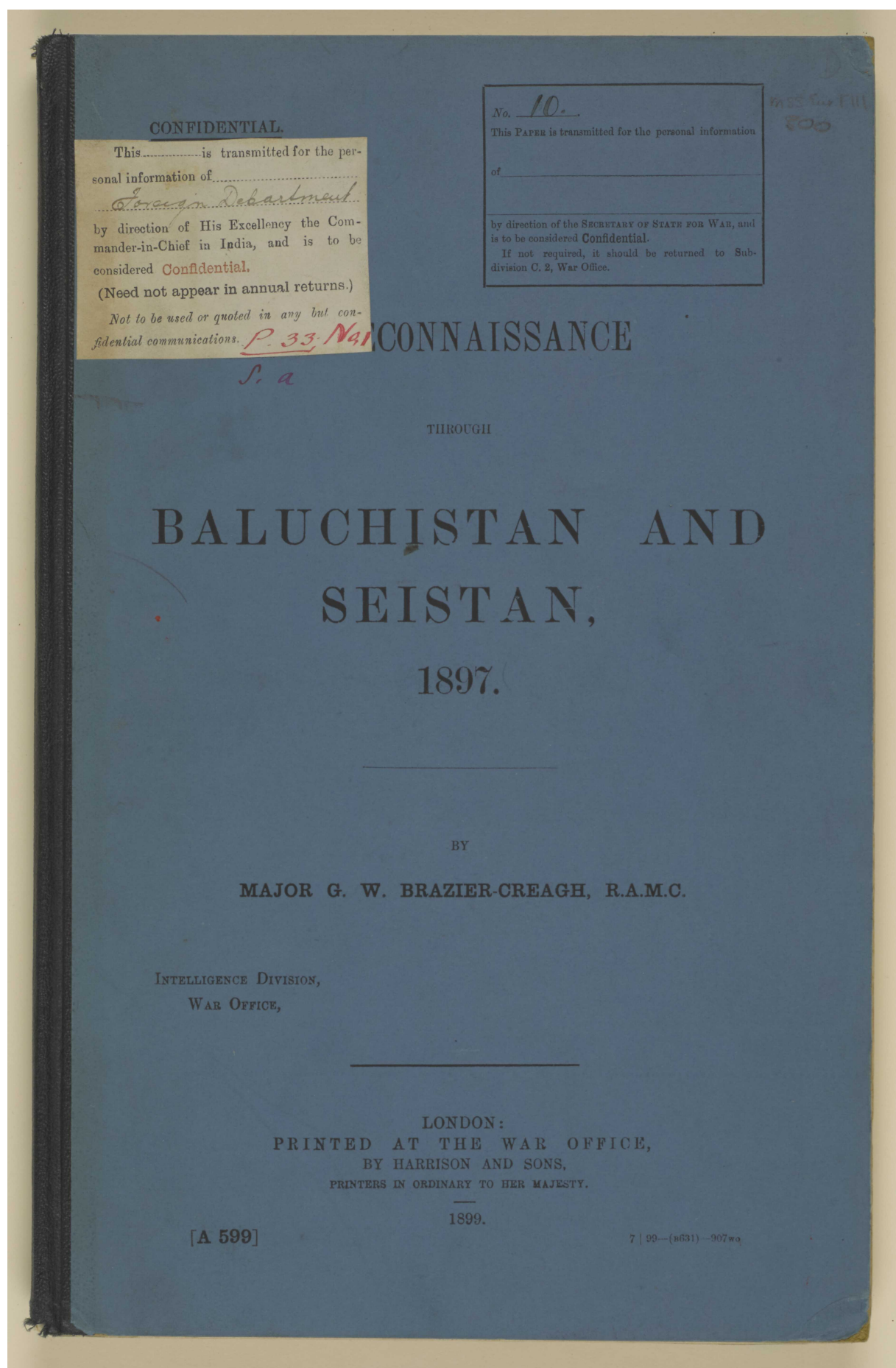
There is a list of nine appendices (folio 5v) as follows:

- 'A.- Genealogical tables of Sarbandi, Kayani, and Naroi tribes' (folios 30-31);
- 'B.- List of Taoki tribes in Seistan' (folio 31v);
- 'C.- Average temperature of each camp', April to November 1897 (folios 32-35);
- 'D.- Aneroid readings', April to November 1897 (folios 36-39);
- 'E.- List of wells and springs', with serial numbers corresponding to 'Map No. II' (folio 39v);
- 'F.- List of villages', with serial numbers corresponding to 'Map No. II' (folios 40-41);
- 'G.- Table of meteorological observations, Baluchistan' (folios 41v-43);
- 'H.- Table of meteorological observations, Seistan' (folios 44-50);
- 'I.- Table of meteorological observations, Neh and Birjand Districts' (folios 50v-51).

The file also includes five maps and sketches, store in a pocket (folio 58). They are listed on folio 5v as follows:

- 'No. 1. Baluchistan and Seistan' (folio 53);
- 'No. 2. Seistan' (folio 54);
- 'No. 3. Route plan of Robat Nala' (folio 55);
- 'No. 4. Waterways of the Helmund [Helmand] Delta' (folio 56);
- 'No. 5. Nasratabad [Naṣratābād] Fort' (folio 57).

'Reconnaissance through Baluchistan and Seistan, 1897' [front] (1/120)



'Reconnaissance through Baluchistan and Seistan, 1897' [back] (2/120)



'Reconnaissance through Baluchistan and Seistan, 1897' [spine] (3/120)



'Reconnaissance through Baluchistan and Seistan, 1897' [edge] (4/120)



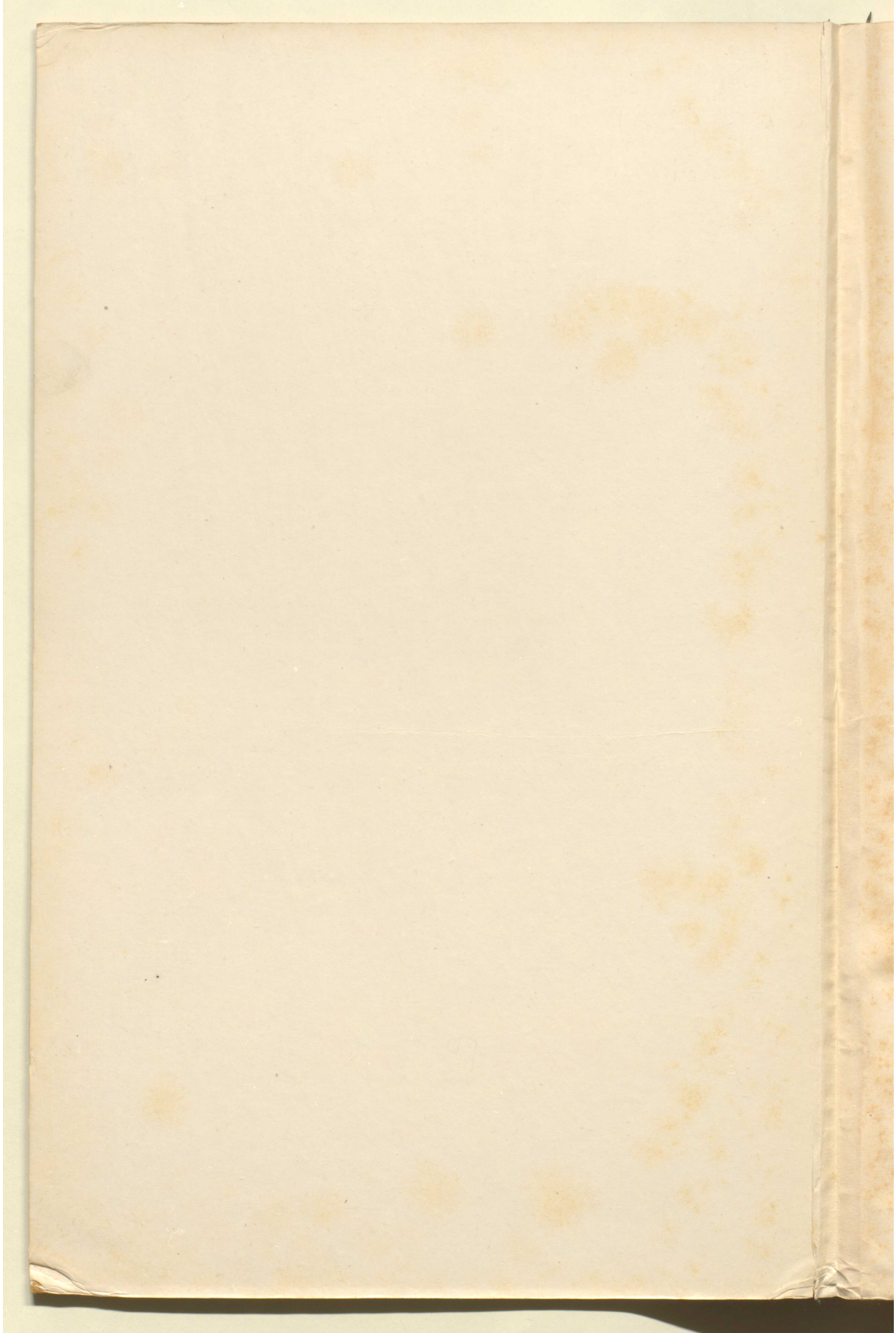
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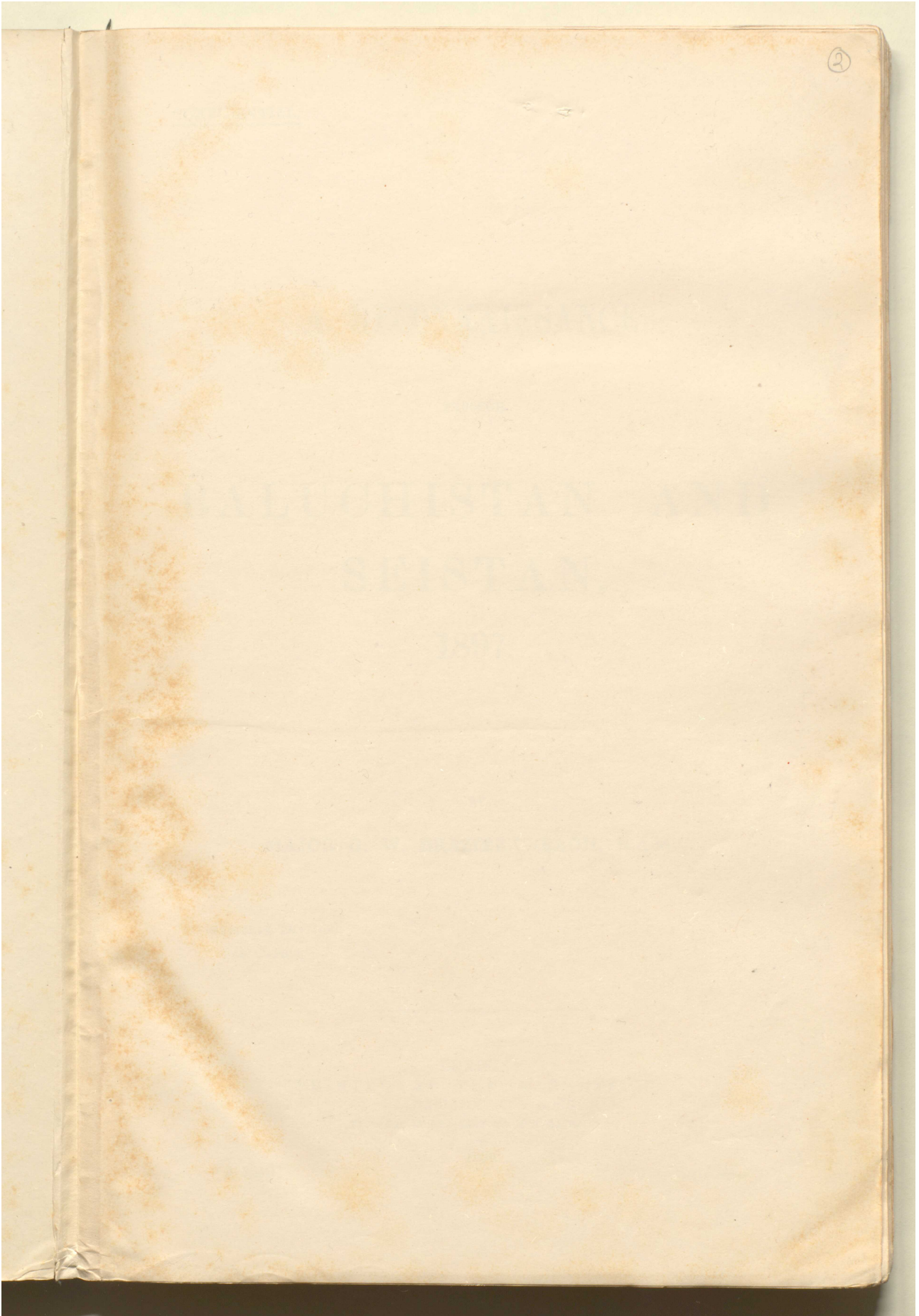
'Reconnaissance through Baluchistan and Seistan, 1897' [tail] (6/120)



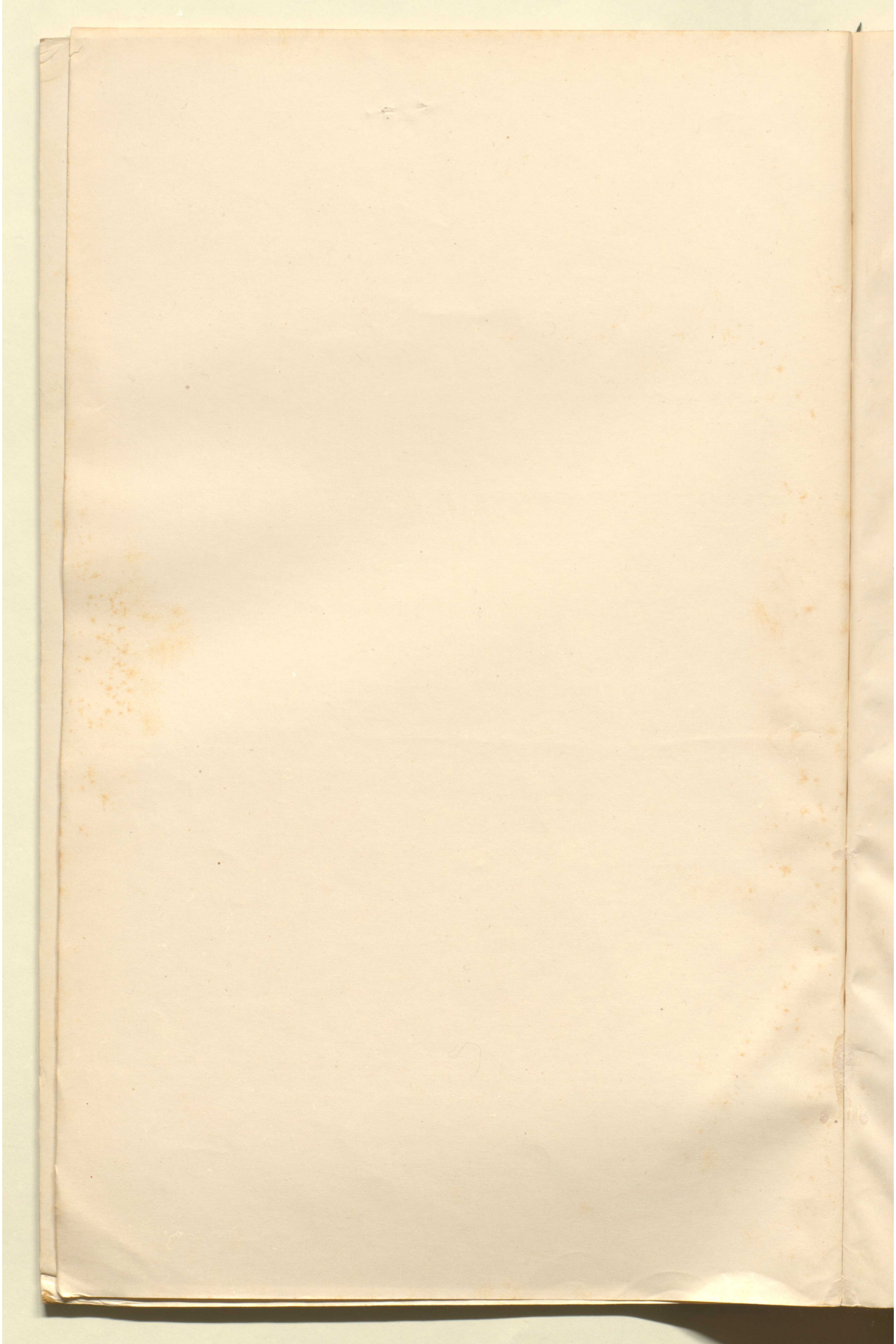
'Reconnaissance through Baluchistan and Seistan, 1897' [front-i] (7/120)



'Reconnaissance through Baluchistan and Seistan, 1897' [2r] (8/120)



'Reconnaissance through Baluchistan and Seistan, 1897' [2v] (9/120)



CONFIDENTIAL.

A RECONNAISSANCE
THROUGH
BALUCHISTAN AND
SEISTAN,
1897.

BY
MAJOR G. W. BRAZIER-CREAGH, R.A.M.C.

INTELLIGENCE DIVISION,
WAR OFFICE,

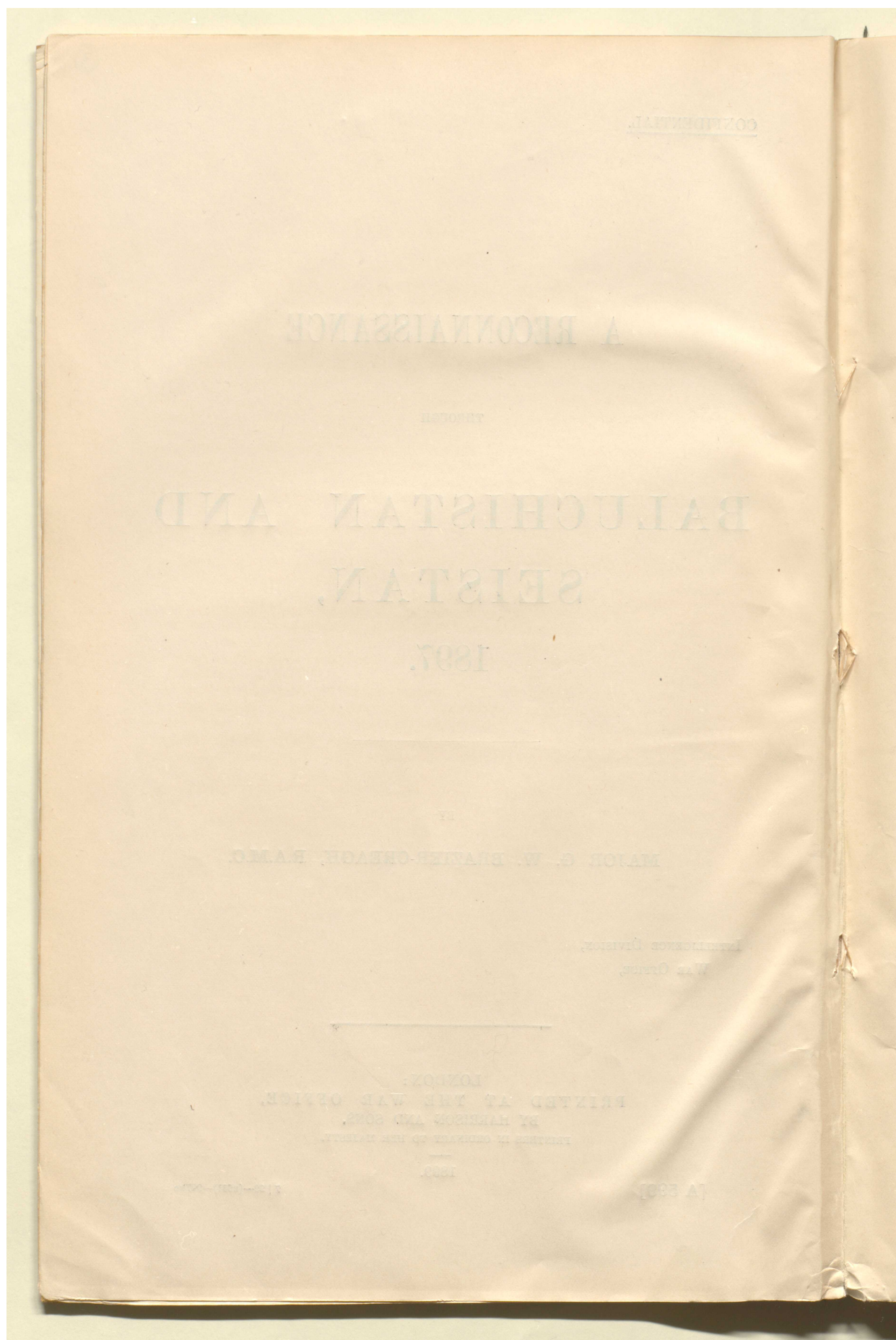
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'Reconnaissance through Baluchistan and Seistan, 1897' [3v] (11/120)



INTRODUCTION.

At the request of the Director of Military Intelligence, War Office, I submit an up-to-date report on the resources, administration, and general aspect of affairs in Seistan, whither I went in 1897 on a political mission.

I have in my report on the Mission to Seistan (compiled for the Government of India) fully described the political situation and outlook.

Political considerations and future policy are therefore only briefly touched on in the following pages.

A survey and description of the mountainous country to the west and south is embodied in this report. This is of considerable strategical importance in the defence of Seistan and had not previously been explored or surveyed.

Leading points of interest on the approaches to Seistan from India across the intervening deserts of Baluchistan, are dealt with on the outward or southern journey, and on the northern or return journey.

The information on routes, &c., compiled while in Baluchistan, are being incorporated in the Baluchistan Gazetteer and Route books.

The attached maps and plans, to which special attention was given, fully portray the leading features of the country and points of special interest referred to in the body of the report.

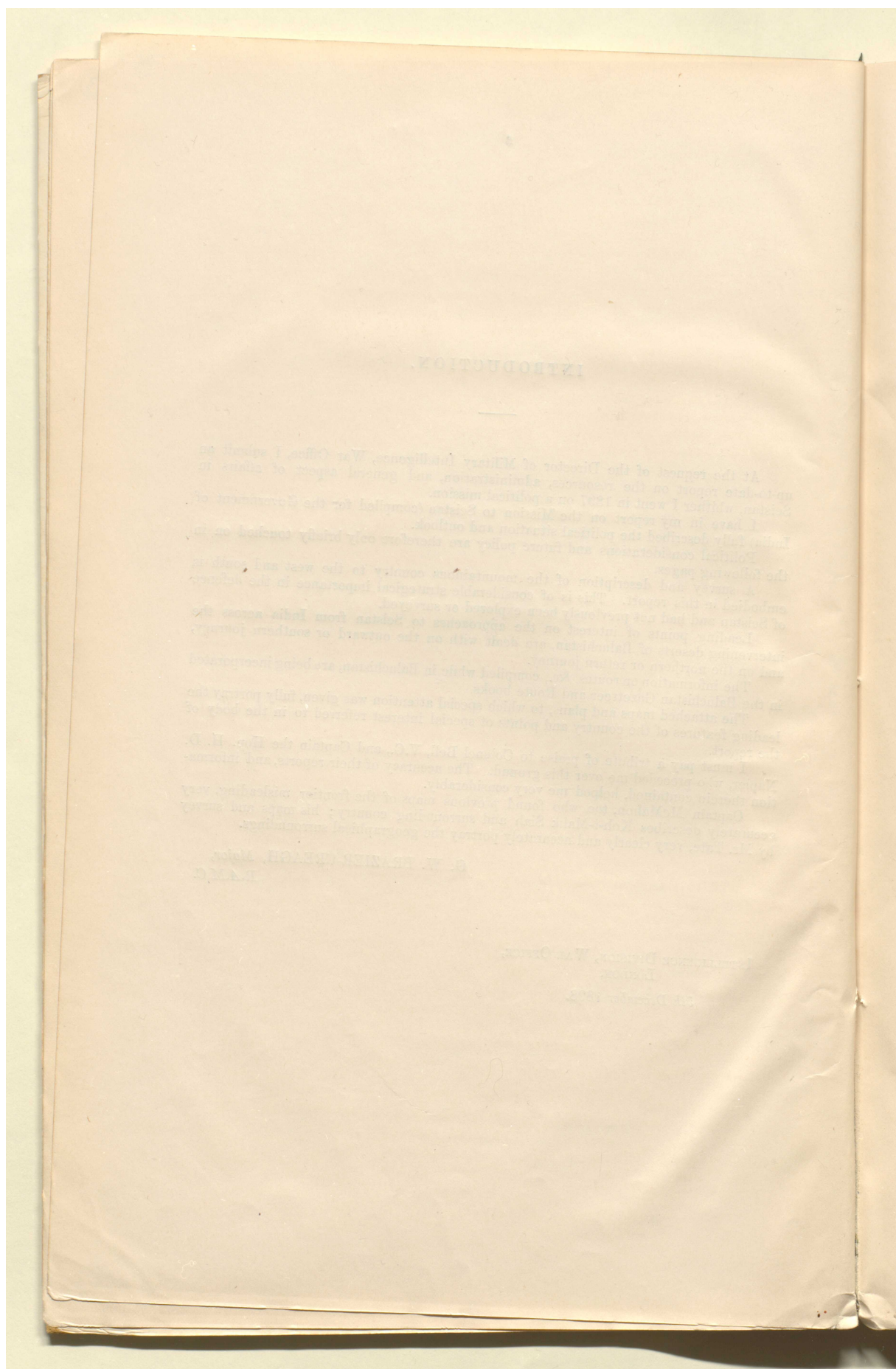
I must pay a tribute of praise to Colonel Bell, V.C., and Captain the Hon. H. D. Napier, who preceded me over this ground. The accuracy of their reports, and information therein contained, helped me very considerably.

Captain McMahon, too, who found previous maps of the frontier misleading, very accurately describes Koh-i-Malik Siah and surrounding country; his maps and survey by Mr. Tate, very clearly and accurately portray the geographical surroundings.

G. W. BRAZIER-CREAGH, *Major,*
R.A.M.C.

INTELLIGENCE DIVISION, WAR OFFICE,
LONDON.

5th December 1898.



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A Reconnaissance through Baluchistan and Seistan, 1897.

CHAPTER I.

GENERAL ACCOUNT OF JOURNEY ACROSS THE BALUCHISTAN DESERT.

We left Quetta on the 6th April 1897, in accordance with telegraphic instructions from the Foreign Department directing me to reach Seistan with the utmost expedition.

My party and escort included Hospital Assistant Abas Ali, Surveyor Asgar Ali Beg, K.B., Sher Ali, clerk, Daffadars Muhammad Azim Khan and Ghulam Haidar with 12 sowars of the Sind Horse, Jamadar Jhanda Khan, with 15 Rustomzai Baluch levies, mounted on trotting camels, Sowar Mir Afghan, 9th Bengal Lancers (personal orderly), four servants, and seven syces.

We reached Nushki (93 miles) on the 9th April. Here I was forced to halt for one day, the local Sardars having intimated their desire to come in and salaam to me, as also to report a recent raid that had been committed, the result of a long-standing feudal quarrel between the Rakshani and Zagar Mangal tribes.

Five long hot marches brought us to Dalbandin (122 miles) on the 15th April. From here two routes were open to me, a northern one, *via* Ismail, Merai, Jhuli, Manzil and Amir Chah, and a southern *via* Asa, Zeh, Isa-Tahir, Mash-Kiga, and Amalaf. The latter route, though somewhat longer, was chosen, as being the least known, and consequently the more important to reconnoitre.

Mr. Barnes, too, recognizing the necessity of finding out the best routes, and having a complete reconnaissance and survey of those best suited for the development of our commercial interests in this sphere, requested me to proceed by this little known route, unless some unforeseen obstacles arose to prevent my doing so.

Leaving Dalbandin on the 17th April, having halted a day to hire some extra camels to carry water before facing the desert, we reached Kundi (134 miles) without mishap, on the 22nd April.

This, the first section of the route, was over weird, arid and barren stretches of sandy desert, unrelieved by a single interesting feature. Nothing but a vast expanse of sandy plain and saltings, stretching away on all sides, apparently without limit till lost in yellow fiery haze and mirage. It can be dismissed in very few words, having no advantages whatever, strategical or otherwise, to recommend it.

Pushing forward from Kundi on the 24th April we reached Kirtaka (131 miles) on the 28th April, having halted one day to explore the Amalaf range.

This, the second section of the route, is over a much better line, being hard pat most of the way; water, too, is procurable at reasonable intervals and is of better quality than that met with on the first section of the route.

Starting again next morning we zig-zagged along the rugged, boulder-strewn skirts of the hills, crossing numerous broad scours, the outlets of the drainage from the Mirjawa, Kacha, and Lar ranges.

Our frontier post Robat (47½ miles from Kirtaka) was reached on 30th April.

The intervening distance between Quetta and the Persian frontier, a distance of 527½ miles, was accomplished in 24 days, including five days' halt, averaging 22 miles per day or 27¾ miles per marching day.

This, too, over exceptionally bad going for the greater part of the journey, and in excessive heat, with indifferent, not to say bad, water at long intervals, is a test of what our native cavalry and heavily-laden camel corps can do at a pinch.

The length of the marches varied, all distances from 12 to 43 miles being covered each day, and I had not a sore back amongst the animals on reaching Seistan.

Letters awaited me here from Sartip, Deputy Governor, and from Colonel Yate,

Her Britannic Majesty's Consul-General, Meshed, with a copy of the order issued by the Governor-General of Khorasan to the Hashmut-ul-Mulk, directing him to receive me with all honours and render me all the assistance that I might require during my stay in Seistan, &c.

The condition of the horses and transport on the completion of this exceedingly hot and rapid march necessitated a rest. Consequently a halt of a few days was made at Robat.

During this period I was able to make a complete reconnaissance survey of the surrounding hills and valleys, which are of considerable strategic importance affecting our trade routes and future policy towards Seistan.

Leaving Robat again on 6th May, at 7 miles, we joined, and followed the main kafil route from Sarhad to Seistan and Western Afghanistan, by no means a well-supplied route in the all-important matter of water, which is only met with at long intervals.

We reached Seistan, 94 miles, on the 9th May. This latter part of the journey to us appeared a regular highway, after the lonely deserts and plains we had crossed; travellers and traders are free to come and go unquestioned, no restrictions being imposed on them similar to those affecting our Seistan—Quetta routes, instituted by the adverse influence of the Muscovite under the cloak of plague.

Incidents
en route.

The journey at this season of the year, as may be supposed, was intensely hot, added to which was a scarcity of water, which, moreover, was neither suitable nor palatable for horses, much less human beings.

Most of the old wells had either fallen in or had been filled in by sand-drifts; the majority of them had been fouled beyond description by years of faecal and other matter, which, saturating the ground in the vicinity of the wells, had percolated through, thus rendering the water positively dangerous for drinking purposes.

Though little if at all inhabited, excepting by a few wild nomads, this, in former days, was a much frequented route, but, owing to the *zulum* of Sir Nauroz Khan and the predatory proclivities of the Reki and Dawani *bad-mashes*, it fell into disfavour.*

It was reported on reaching the Perso-Baluch frontier that the Amir of Afghanistan meant to establish a post at Robat Pain on the site of the old Afghan Fort (*vide* Plan No. 3), about 1½ miles south of our frontier post at Bala Robat. Up to the date of our departure from the country no steps had been taken in the matter, nor do I think there is any likelihood of such a step being put into execution.

The surrounding hills near Robat and Ziarat-i-Malik-i-Siah abound in iron and copper ore; lead, too, is reported to have been found here, and there are evidences of smeltings existing here in former days. The hillsides are plentifully covered with the bastard or wild rhubarb (*rivas*), the acrid juices and stalks of which are appreciated by the Baluchi.

The assafœdita (*hing*) plant abounds all over the hills. Kafilas come here annually and collect and dry large quantities which they import to India. On the Koh-i-Sultan range, to the east of Amir Chah, large collections are also made of the plant.

Return
journey.

We retraced our steps from Seistan as far as Saindak, from which place we returned by a more northerly route, *via* Amir Chah, rations having been laid down on this route for the cavalry escort which I had purposed sending back at an early period, but did not do so eventually, consequent on the aspect of Seistan affairs.

Our journey back was unmarked by any incidents other than those naturally consequent on rapid and long marches in varying temperature, and a paucity of water, at all times bad, often at distances of from 20 to 45 miles or more apart.

Disadvan-
tages of the
northern
route.

From Saindak to Gat-i-Barot, *via* Amir Chah, the country is very desert and waterless, and cannot be considered either a promising or practicable route.

Up to the time of our leaving Baluchistan, no water had been found between Saindak and Amir Chah, although "Ido," *palwar* of great fame, had worked hard for 6 months to sink wells at Drana Koh and Zeh, nor is there any between the long weary stretch from Amir Chah to Mizzil.

On the other hand, as will be seen by a glance at Map No. 1, water is found at reasonable intervals on the southern parallel route in this vicinity, excepting on the Siastarji plateau, where, in several spots, water is near the surface and could be easily obtained.

With little difficulty, such as cleansing out and repairing existing wells, sinking a few new ones, and above all, building pucca watering troughs to prevent pollution of water,

* I shall again refer to this section of the route. Strategically it is a much better line of advance than that by Amir Chah.—B.-C.

the great natural necessity of our existence over any trade route that it is contemplated to popularize, a better and purer water supply could be guaranteed all along the southern route.

The greater part of the route between the above-named places on the Amir Chah route, is over heavy sandy going and across lofty sand dunes.

Apart from the information of the nomadic inhabitants, one can easily see the character of the country has undergone great changes consequent on shifting sands.

The country is exposed and unguarded by hills on the north, a vast sand desert stretches away right up to and beyond the Helmand river; and all the year round, the country being subject to violent wind storms, it is not unnatural to expect that the entire character of the country will still further undergo great changes.

From Ismail an intermediate route runs south, between the northern route and the one we proceeded by, joining at Kundi (*vide* map.) This Nohli—Salgaz—Kundi line will at once suggest itself as being the most direct.

The most practicable and strategical line for all purposes appears to me to run from Quetta* to Ismail; along that we travelled, thence to Kundi by the above onwards, following our route across the Amalaf and Siastargi plateaux to Saindak. Saindak should be a central dépôt and strong post; it is on the high road to everywhere in these parts, leading as it does from Seistan and Afghanistan to Mashkkel, Jalk, Makran, Kharan, Dalbandin and Quetta.

Had it not been for the presence and protection afforded by our post at Amir Chah, the kafil proprietors and merchants informed me that this is a preferable route.

I would here state that I have pointed this out to Mr. Barnes, agent to the Governor-General, Baluchistan, as also to Lieutenant Webb-Ware, the political officer, Chagai, suggesting at the same time the advisability of transferring the greater number of the levies from Amir Chah to Saindak and placing all under a strong crafty native, leaving but a small post at the former which requires but little guarding.

It is in this very vicinity that the Damini tribe cause such trouble and interfere with our trade, blocking the route by perpetual raids and bolting into the fastnesses of Mirjawa range. It will therefore be seen how important it is to have a strong post at Saindak to check the Damini, who dominate the entire western districts.

From Saindak to the frontier, the most practicable route within British limits I think, will be found to follow along the skirts of the hills as straight as the nature of this rugged *damini* will admit.†

A glance at my map will show the exact places, with their names, where water is available all the year round (coloured in blue circles or crosses) along the whole routes travelled.

If, for strategical or other purposes, it is ever contemplated to construct a railway and link up Eastern Persia with Quetta, this must be the line of advance, and not, I think, *via* Amir Chah, if we wish to avoid a source of anxiety similar to that which the Russian administration have to combat in the section of her Trans-Caspian Railway between Merv and Charjui.‡

This line runs through lofty sand dunes, from which the sand is always on the move, under the influence of perpetual wind, and necessitates a considerable expenditure to protect it from being rapidly obliterated.

I was glad to see that the Political Agent, Chagai, acting on the suggestions and recommendations made by me in my earlier letters to Mr. Barnes, agent to the Governor-General, Baluchistan, had caused supply depôts to be placed along the route at convenient centres. These are a great boon, not only to traders, but to the nomad tribes along these deserts.¶

* Or *via* Bolan, Darwaza, Mastung, Kanak up to Nushki, as suggested by Colonel Bell, V.C., *vide* "Report on a journey from Quetta to Trebizond," p. ii of preface.—B.C.

† This short section was not travelled over by my party, but from information received and the general configuration of the surrounding country as seen when passing close on either side, I have reason to believe there are no topographical difficulties whatever.—B.C.

‡ Naturally a shorter and more practicable route from Saindak (*vide* Map No. II.) would be across the deserts, *via* Gambaz-i-Shah (bridging the Shelag here would be the most serious obstacle) and Girdi. This would cut off a considerable angle, and would enter the country at a most advantageous part of Seistan. This would necessitate a concession from the Amir of Afghanistan, but over such a worthless barren tract could be no doubt easily arranged.—B.C.

§ The line projected by Colonel Sir T. H. Holdich, according to the recent Indo-Afghan Boundary Commission, is now outside the British sphere of influence. Without interfering at all with Seistan or encroaching on Afghan territory, a light railway, following the above suggested route, would be equally suitable for commercial or strategical purposes.—B.C.

¶ The major portion of the suggestions and recommendations made by me to the Agent Governor-General, Baluchistan, have been embodied under the head of "Improvements," on p. 18, para. 28, of Lieutenant Webb-Ware's Report on the Baluchistan-Persian Caravan Route.

'Reconnaissance through Baluchistan and Seistan, 1897' [7v] (19/120)

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Local appreciation of the re-opening of the Seistan—Nushki route.

Future trade prospects.

Danger threatening our commercial prospects. Practicability of routes.

Many encouraging signs are manifest to betoken an increased appreciation of the opening up of the Baluchistan—Seistan caravan route.

The returns from February to October 1897, as seen in Lieutenant Webb-Ware's report, give the total value of the exports and imports as over 3½ lakhs, and it is only fair to assume that these figures would possibly have been much higher but for the adverse influence exerted by Russian action in blocking the trade by causing the frontier to be closed "on the plea of plague," whereby traders were afraid to send out kafilas, and traffic practically came to a standstill.

The Khorassan and Seistan kafila season opens in August, and several large caravans both for Quetta, Khorassan, Bam, and Jalk were inspected by me before starting from the country. Steps must be taken to protect the interests of traders and counteract Russian intrigue, both in Khorassan and Seistan, if we are to ensure the rapid expansion of this trade, which may be said to be but in its infancy.

There is a very large field open in tea alone, if the Indian tea planters and merchants bestir themselves and wish to regain the trade with Central Asia, which was formerly in their hands some years ago.

As regards the future prospects of a tea trade (provided it is green, which is preferred all over Persia) there cannot be a doubt. Russia cannot supply the market: her tea is inferior, and it is said, possibly with a microbe of truth, that the bouquet of their tea is affected by the passage across the Caspian in petroleum steamers. Against the expansion of our trade on this side, the entire weight of Russian influence in Persia is now being exerted. How strong this is may be gathered from the events narrated in this report.

The difficulties of the intervening route have been much exaggerated, as exemplified in my rapid return journey from Seistan, covering a distance of 579 miles with cavalry in 22 days. All along the return journey there was not wanting evidence of contentment under the new rule, and, on enquiry, we were invariably informed that affairs were much more peaceable and settled, even in this short time since the acquisition of this territory by the Indo-Afghan Boundary Commission.

The people appreciate and applaud the British Sirkar's large expenditure for their well-being in opening up these routes. Lieutenant Webb-Ware, Political Officer, Chagai, is actively engaged in improving this route; thanas and posts have been established, and many of the difficulties about water, &c., have already been surmounted.

I append herewith a list of the leading merchants in Seistan. These traders were interviewed by me, and all the advantages of the opening up of the old Khorassan—Sind routes thoroughly explained to them.

They were exhorted to bestir themselves and follow in the footsteps of their forefathers, who had travelled these routes in by-gone days under great difficulties. British gold had reopened the highways and portals, and it now remained for them to emulate the deeds of their fathers and revive the trade with Central Asia and India.

The only danger now to the rapid expansion and increased popularity of this old Indo-Persian trade route lies in the threatening action of Russia, who is commercially jealous at the outlook, and the recent acquisition of Chagai, &c., which brings our frontier outpost on to the Persian border.

Our rapid trips on the outward and homeward journey conclusively prove that with forethought, care, and a little previous preparation, all the supposed difficulties of crossing the Baluchistan deserts between Quetta and Seistan disappear in the case of a small but well equipped party, and that the routes are practicable even for cavalry.

List of leading merchants in Seistan.

Residence.	Name.
Daulatabad	(1.) Azghar Meshdi. (2.) Mir Beg. (3.) Agha Qalah Ali. (4.) Sher Dil.
Sikoh	(5.) Agha Ghulam Murtaza. (1.) Pasand Khan.
Killah-i-Khona or Burj-i-Khona ..	(1.) Mirza Fakir Muhammad. (2.) Karblai Ghulam Ali Beg. (3.) Syed Ali Agha.

List of leading merchants in Seistan—*continued.*

Residence.	Name.
Killah-i-Nao or Burj-i-Nao or Burj-i-Alum Khan	(1.) Abas Khushali. (2.) Muhammad Ghulam Hussain. (3.) Ali Gul. (4.) Ahmad Akhund. (5.) Shah Sowar Azghar. (6.) Noor Muhammad. (7.) Ali Jan. (8.) Darwesh Ali.
Kimak	(1.) Ibrahim.
Iskil.	(1.) Mir Abas.
Zahidan	(1.) Ahmad Khan Nautini.
Milak	(1.) Muhammad and others.
Saidak	(1.) Yousaf.
Deh Ali Akbar	(1.) Ali Akbar.
Nasratabad	(1.) Karblai Agha Jan.

CHAPTER II.

RUSSIAN DESIGNS AND POLITICAL CONSIDERATIONS.

During the stay of the Mission in Seistan over a lengthened period, I travelled every foot of the country which enabled my party to cement very friendly relations with the priests and people of the country.

My repeated tours in all directions enable me to verify the information embodied in this report, which was chiefly extracted from the Revenue, *Octroi*, and State Records, to which I had access (surreptitiously) owing to the cordial and friendly relations which my profession enabled me to establish with the Sardars, officials, and others. It is not my intention here to explain from what source I gathered the information anent Russian aspirations, &c., I simply confine myself to recording what came to my notice.

Future
policy.

The remedies to be adopted to counter Russian designs I leave to abler heads than mine, yet I do not think a fatal blow would be struck to the well-being of our trade and prestige all over Persia, Baluchistan, and Afghanistan if we were to establish without loss of time a British agent in Seistan, and thus checkmate the not remote contingency of our rival forestalling us by making such an appointment. This alone would strengthen our hands and give confidence to British traders.

The Sardars, priests, and people throughout the country have for years been well disposed towards the British Government, and are strongly in favour of coming under our suzerainty in preference to that of our northern rival. This was frequently assured me and beautifully illustrated by the following expression: "*Sag-i-zard, biradar-i-shighal*" (literally, the yellow dog and the jackal are of the same family), often repeated to us, and really meaning that the present Persian rulers are bad enough, but that the Russians would be no better.

One of the head Mullahs of the country informed me secretly that "beyond doubt the Russians had got hold of Muzaffar-ud-Din Shah, and there was every probability of his secretly granting them concessions and allowing the Russians to occupy Khaf, Birjand, and Seistan. That when that day came they would no longer be Mahomedans; they all knew the Supreme Sarkar respected the Mahomedan religion and laws all over the world, but they did not think the Russians would. That everyone throughout the kingdom knew in their hearts of the right and might of the English laws, &c."

I cannot in all humility say what ought to be done, and merely repeat the above as things that may come to pass, feeling steadfast in the belief that if we neglect to maintain a preponderating influence in Seistan our northern rival will assuredly become mistress of it.

The object of Russia's recent activity in Khorassan has yet to be disclosed. Her political aspirations as regards Eastern Persia, particularly the fertile oasis of Seistan, have been revealed to me during my stay in the country. With her rapidly increasing influence in Northern Persia, the present official *entente* between Persia and Russia must be carefully watched. It is certainly prejudicial to our Imperial interest to permit any further extension of Russian influence south, on this side, so near our Indian frontier at the only assailable point now open to our northern rival.

The most important of these are the gigantic railway projects of linking up the Trans-Caspian Railway with a port on the Persian Gulf (Bandar Abas or Chahba) and the acquisition of Khorassan as far south and including Seistan, with a branch line running to it from Birjand.

Some ambitious Muscovites hope that with the advance of time, and by mutual consent, this proposed extension may be linked up with our Baluchistan railway.

It will indeed be a severe blow to our *amour propre* if Russian influence at the Tehran Court (which with the present Shah is very great, *vide* previous report at page 79, "A Reconnaissance through Persian-Baluchistan and Eastern Persia, 1893 and 1894") succeed, and her long-sought-for concessions be granted by the present Shah.

The acquisition of Khorassan and ultimate occupation of Seistan by Russia is of no mean significance, yet it is to her trifling, in comparison to its importance to us. Such a concession would virtually damage our prestige, not only amongst tribes in the country,

along the Afghan-Seistan frontier, but over the whole of Baluchistan, and menace the "Izzat-i-Daulat-i-Angrez," now so firmly established in the hearts of the Indian Army and her people.

We cannot lose sight of the fact that all Asiatics recognize that might alone is right.

STRATEGICAL NOTES.

Having now approached Seistan from India over two routes, and having during my Approaches travels in 1893 and 1894 very carefully investigated the approaches from the coast, I to Seistan. have no doubt in my mind as to the most suitable and practicable line of advance. For reasons previously given in a former report, having travelled the Chahbar—Geh—Bampur—Sarbad route almost to the confines of Seistan, the Bandar Abbas—Daolatabad—Baft—Kerman route, and in part the Bandar Abbas—Regan—Nahimabad—Nasratabad route, I am forced to the conclusion that the Quetta—Nushki—Dalbandin—Nohli—Kondi—Amalaf—Saindak route at once commends itself as the easiest and most practicable route either for strategical or commercial purposes.

If it is ever contemplated to push forward or link up our Indo-Baluchistan railway with Seistan this must be the line chosen.

As an alternative route, for a small well-equipped flying column, I would suggest the Alternative Chahbar—Bahu Kalat—Irifishan—Magas—Kwash route which was travelled over by route. my party from Magas onwards in 1894.

The southern section of this route awaits reconnoitring, but I learn from native information it is frequently travelled over by kafilas, and is reported to be much less difficult than the route from Chahbar, *via* Geh and Bampur. Another great advantage not to be lost sight of, is that Chahbar is the best and most healthy port on the Persian Gulf.*

INFLUENTIAL TRIBAL CHIEFS WITH OTHER INTERESTING MATTER IMMEDIATELY CONNECTED WITH THE ADMINISTRATION OF SEISTAN.

An erroneous idea prevails that the tribal chiefs in Seistan are of "no account and none occupy a higher position than that of village Kad Khuda."

This has not been my experience. I will mention some of the leading Sardars on whose influence are dependent the internal affairs and administration of the country, and to whom I know for a fact (having perused the letters) the Deputy Sartip and his father, the Governor of Tabas and Seistan, appeal for a settlement of the frontier water distribution, tribal discontent, land revenues, raids, and other matters concerning the well-being of this isolated little territory.

To these Sardars is justly due a mead of praise from my pen, for without their assistance, at all times willingly rendered, and against official opposition, I should have had much difficulty.

The clergy, too, of the country, I must not omit to state, rendered us valuable assistance, and by timely information on more than one occasion prevented what might have developed into serious affairs.

Sardar Purdil Khan, Sarbandi, son of Sardar Lutuf Ali Khan, is the most influential Sardar in Seistan, and the Sarbandi the largest tribe. Influential Sardars of Seistan.

This Sardar resides at Daulatabad in the 6th Nawar, he is a general adviser to the Deputy Sartip on matters of importance affecting tribal affairs, &c.

He exercises considerable sway not only over the Seistan Sarbandi and sub-sections of this tribe, but his influence extends over the Damini and other small sub-tribes on the Sarhad plateau.

Purdil Khan is greatly respected, of undoubted ability, strength of character, and, as his name implies, courageous. It is stated that he did good service in the British cause with Sir Oliver St. John.

This Sardar has lost his right arm, and the following account of the occurrence is a fireside story in Baluch hearths:—

When a young lad of 10 years, he fell backwards off a donkey; apparently he did not mind the fall, although it appears the humeral bone was fractured badly.

* The one, too, which the Russians are desirous of possessing.—B.-C.

NOTE.—The Russian Medical Officer who visited Seistan during my stay, and subsequently remained a long time at Birg, and also visiting Tarbat-i-Haidar reached Meshad on 27th August 1897. On arrival he paid into the Khorassan treasury the 10,000 karans forwarded from the Deputy Sartip while at Nasratabad.—B.-C.

His father, Lutf Ali Khan, seeing that the arm was partly severed from the shoulder, cut off the entire arm and plunged the stump into boiling rogan which the people say, possibly with truth, prevents the wound going bad and hastens the healing process.

The boy did not seem to feel the operation and did not even cry when the stump was put in the boiling rogan; hence his father re-christened him Purdil, *i.e.*, stout-hearted, courageous. Purdil Khan and some other members of his family were for some time patients of mine, he was much debilitated on his return from Tabas where he had been for four months with Ali Akbar Khan during troublesome times at the beginning of the year. He returned to Seistan in the early part of June and rendered me much valuable assistance. He states the climate of Seistan is much better than that at Tabas at this season of the year. This is at variance with the generally accepted idea as gathered from the records of other travellers on this side.

Sardar Syed Khan, Naroi, son of Sardar Sharif Khan, lives at Khwaja-Ahmad in the first Nawar.

In 1888 Sharif Khan was invited to the Kabul Court, and was treated with much favour by Abdur Rahman, in return for the valuable assistance he had rendered to him (Abdur Rahman) when on his flight from Kabul.

Abdur Rahman, it is said, gave the Sardar 4,000 Kabuli rupees, and 1,200 for his son as annual stipends, and asked Sharif Khan to remain with him at Kabul, which the Sardar did, the governorship meanwhile being bestowed on the elder son, Syed Khan, who had remained at Khal-i-Fath.

On the death of Sharif Khan, at Kabul, the Amir sent for Syed Khan, who was also treated with favour on arrival at the Kabul Court, and was offered the governorship of some out-of-the-way place near Kafistan, it being a policy of Amir Abdur Rahman never to bestow any hereditary appointment in order to possess himself of proprietary rights, and stifle local tribal influence which might be an opposing factor in his administration on the frontier.

Syed Khan acceded to the Amir's request, and accepted money from him for the transport of his family to his new appointment; but on return to Khal-i-Fath he simply transported the lot, bag and baggage, into Seistan, preferring to remain near his own people rather than at the other side of Afghanistan in a doubtful appointment.

It must be remembered that Syed Khan's sister had been married some years previously to Ali Akbar Khan, who was, before his father's (Mir Alum Khan) death, Sartip of Seistan; consequently he claimed a refuge in Seistan from his own brother-in-law.

Ali Akbar treated Syed Khan favourably and gave him some lands and the administration of villages at Khwaja-Ahmad, making him adviser also to the young deputy Sartip, and his mother before proceeding to Tabas to take over the governorship there. This trust was duly carried out till Birjand influence ousted him.

Syed Khan is a middle-aged, active man. He was summoned to Tabas soon after my arrival in Seistan, to relieve Sardar Purdil Khan; consequently I did not see as much of him as I should have wished. What I did see I liked: his frank and pleasing manner, and voluntary information on matters then affecting British interests, could not fail to appeal to me. He has some 200 footmen and a few sowars; some of my men being of the same tribe we had a welcome amongst them.

Muhammad Ali Khan, the young brother of Syed Khan, who had been in Kabul with his father, awaited some time the return of his brother, Syed Khan; but hearing he had taken refuge in Seistan, Ali Khan fled also. He then came to Peshawar, *via* Jalalabad, where it is reported he was kindly treated by the Deputy Commissioner, Mr. Merk; but being unable to secure any appointment or political pension he returned to Persia homeless, and proceeded to Kerman.

On application to the Persian authorities he was given the governorship of Ladis by the Firman-Firmá, at Kerman, and is now established there.

Sardar Khan Jehan Sanjarani, son of Sardar Ibrahim Khan, late Governor of Chakansur, lives at Saidak, in the 7th Nawar, beyond the Rud-i-Parian.

Ibrahim Khan held Chakansur when Amir Abdur Rahman ascended the Kabul throne; but on his death the Amir did not, as is his custom, allow the father's rights to the son, Khan Jehan. Khan Jehan fled into Seistan, and was offered land, which he at first refused. He came thence to Quetta, and was treated as a hostage for some time there by Sir R. Sandeman. He received a khillat from the agent to the Governor-General, Baluchistan; but no political pension being sanctioned for him by the British Sirkar he returned to Seistan.

Sardar Ali Khan Sahroni, of Pulgi (since deceased), at that time represented to

Alum Khan, Governor of Ghain, that the Taoki tribes, who had always been under the auspices of the Sanjarani tribe in Seistan, were now without a Sardar since the death of Sardar Khan Jehan's father, who had settled in Afghan territory at Chakansur; that now, misfortune having driven his son into Seistan, he might as well be considered Sardar of the Seistan Taokis.

Sardar Ali Khan being an influential chief at the time, the authorities accepted his representations, and Khan Jehan, who was known to be a shrewd, strong chief, with much influence amongst his clan on the Chakansur side, was given lands at Siadak, in the 7th Nawar, on the understanding that one-fourth Government revenue was allowed him as a Jagir.

We stayed three days with Khan Jehan, who treated us with the greatest courtesy and hospitality. He supplied me with horses and donkeys, which saved us many a hot mile's tramp on the return journey, for we had to travel on foot in those parts owing to the swollen state of the Rud-i-Parian (an offshoot of the Helmand river), which is unfordable at this season, and can only be crossed on *tutins* (reed boats).

The first glance shows Khan Jehan to be an independent, resolute, and indomitable character: one who cannot but inspire respect. He gave me a lengthy account of his career and of his visit 14 years ago to the late Sir R. Sandeman at Quetta.

By dint of hard work the tribe have reclaimed a good deal of jungle land, and established several villages in those parts. Khan Jehan boldly told me in front of a Persian official "that he was a zamindar now and not in receipt of any Government allowance; the paltry one-fourth Government revenue share which accrues to him is but poor reward for his hard labour and what he has done to cultivate and reclaim those jungle lands, still, as he had fixed his abode now here, and the Persians having given him an asylum, he was not faithless to his salt, but wherever he and his tribe were they felt warmly attached to the British Sirkar, and there is, naturally, a common bond of union between them and their kinsmen, the Sanjarani of Chagi and Dalbandin, who are under the supreme Sirkar."

Sardar Khan Jehan was united in marriage while I was in Seistan, on the 1st October 1897, to a sister of Sardar Syed Khan (*i.e.*, a younger sister of the Deputy Sartip's mother), the *band-o-bast* being that Sardar Khan Jehan was to give a young daughter of his, by another wife, to Syed Khan's son, on the latter's return from Tabas, where he was at the time with Ali Akbar. Khan Jehan is an uncle of Sardar Ali Khan, of Chagi, who, from what I saw of him at Dalbandin, is but a miserable specimen, and cannot be expected to exercise either influence or moral force in the administration of Chagai.

The Persian policy with regard to these Afghan refugees is to assist and settle them along the frontiers of Khorassan and Seistan. Such refugees as Sardar Khan Jehan and Syed Khan Naroi are the only safeguards against Afghans raiding the weak and easily intimidated Parsiban, which for years previously had been the case.

Since the above-noted Sardars have been established in Seistan, it is a well-known fact that there are 100 per cent. less raids in the country, and it is said that through the Sanjarani and Naroi tribes the Persian Government have not only made substantial increase in her revenues, but have made a wall of peace between Afghanistan and Seistan, as the transborder Afghan-Baluch will not raid his kinsman, the Seistan-Baluch.

The Baluch chiefs repeatedly pointed out to me the neglect of the British Government to show any favour to Seistan or Afghan-Baluch refugees.

Sardars Khan Jehan, Purdil Khan, Syed Khan, and Muhammad Ali Khan, particularly brought this to my notice in their own case, and also in the case of Taj Muhammad Khan Sarbandi, who, on escape from Tehran, came to Seistan to say a last farewell to his kinsmen, and on being pursued by Mir Alum Khan fled to Kandahar, where it is said he did hard service with Sir Oliver St. John, and in compensation but a small subsidiary allowance was allotted to him, when in Quetta, and on his death his widow and children had to return to Seistan penniless, and are now living on the bounty of Sardar Purdil Khan.

One other man of importance is Mir Abas of Iskil. On the father's side he comes of an ancient Arab family, on the mother's a Baluch chieftain's daughter.

His family have enjoyed remission of Government lands in several villages by hereditary rights for many years, since Jahangir Khan's time it is stated.

He holds the contract for *octroi* in Seistan and also trades. He has steadily improved his position and wealth, and the officials are somewhat jealous of his well-being and influence with the priests and people.

Being a clever, sharp, and straightforward man, and having sufficient interest in the country to support him, he has given the authorities no opportunity to encroach on his interests; he bears no kindly feeling towards the Parsiban officials.

Treatment
of refugees
by British
Govern-
ment.

Seistan
revenue
collector.

Feeling of
the people.

It may be said of Mir Abas, "laugh and grow fat"; he is a young man of 40 years, and always wears a genial frank smile of contentment; he rendered the Mission throughout our stay in Seistan some genuine service, and he is most loyally disposed to the British Government.

It is satisfactory to note that the chiefs and tribes inhabiting Seistan and the intervening districts are almost without exception loyal to the British; this I also found to be the case in southern Perso-Baluchistan and Sarhad on my former tour.

Baluchistan and Afghanistan are always spoken of as Mal-i-Angrez, and many are of opinion we have some lien on Seistan by arrangement with the Shah.

None but the higher officials of Birjand, Tabas, and Seistan, knew or cared anything of the plague, but all, of high and low degree, were cognisant of the fact that the trade routes had been closed at the instigation of Russia; the possibility of the Russians now annexing Khorassan and Seistan, as they had encroached on Northern Persia, was openly discussed on many occasions by the officials, priests and more enlightened people.

As far as my experience goes, the people of Southern Khorassan and Seistan are averse to the probable presence of Russia, and her action in causing the routes to be closed has not increased her popularity.

The fact of our presence and prolonged stay in the country gave rise to the rumour, which spread far and near throughout Khorassan and Afghanistan, that the British Sirkar had caused the routes to be opened again in face of Russian influence.

In conversation with the officials, clergy and more educated, feelers were repeatedly thrown out as to the possibility of the purchase and incorporation of Seistan with British-Baluchistan, which remote contingency seems to be the great desire of all excepting "Birjandi & Co."

I frankly told all that the British Government were not desirous of acquiring or adding any more to her already large possessions; her desire was to protect her own, open up the avenues of commerce to all nations, and live in peace with her neighbours.

CHAPTER III.

RESOURCES AND POPULATION OF SEISTAN, 1897.

The geological division into nawars is shown in colours on Map No. II. To prevent Administrative over-crowding, which always spoils a map in my opinion, I have numbered the villages, ruins, &c. The serial number opposite each village both in the table of resources, as also those in Appendix H, correspond with those on Map No. II.

At a glance one can see that the administrative power in Seistan is not of a paternal System of character. Neither contentment nor happiness is expressed in the countenance of the inhabitants, and the general cry throughout the country is one of dissatisfaction.

The office of Kad Khuda (head of village or *buluk*, i.e., district) is bought and sold annually at Nau-roz according to the time-honoured custom of Iran.

Not infrequently one man is Kad Khuda of several villages at a distance and outside his own nawar, where he has no interests other than screwing all he can out of the unfortunate inhabitants.

The traveller is struck at once with the difference between the prosperity of a Kad Khuda's own village where he and his people reside and his interests are fixed, and those places where he has but an annual lease, and so aims at making all he can during his temporary proprietorship, thereby impoverishing both the inhabitants and the land, which, next year, is doubtless knocked down to some equally rapacious rival bidder.

The following show the present Tahsildars and administrators of law and order (*sic*) in each of the seven nawars:—

- 1st Nawar, Mohammed Hassan Khan; he is also Tahsildar of several villages in the 4th Nawar.
- 2nd Nawar, Nirza Ismail; also has interest in several villages in the 3rd and 5th Nawars.
- 3rd Nawar, Mir Darvesh, who has also interests in the villages in 7th Nawar.
- 4th Nawar, Mirza Mohammed Azim, having interests in some villages in 5th Nawar.
- 5th Nawar, Ali Akbar, who has officials under him in several villages in the 3rd and 6th Nawars.
- 6th and 7th Nawars, the leading Sardars, viz., Purdal Khan, Syed Khan, Khan Jehan, and Syed Ali Agha, are the chief administrators in these nawars. Reference to village resources will show the Tahsildars.

In the attached compilation are given all the villages and permanently occupied Fertile spots. The following are considered the most fertile in the order of fertility:— places.

Daulatabad Chilong, Killah-i-Khona, Killah-i-Nao, Kimak Seh Khua, Kosha Pain, Bunjar, Iskil, Dandi, Tuti, Deh Mohammed Safa, Deh Ali Akbar, Hussinabad Pain, Wurmah, Wasaloon, Jazin Ra Pulgi, Siadak, Midak, &c.

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Appendix H shows the nawar

Serial number correspond- ing with map.	Name of villages.	No. of houses.	No. of gardens.	Name of Kat Khuda.	Cart.	Cattle.	Sheep and goats.	Horses.	Donkeys.
1	Kuhak	Nil	..	.. .. .	..	5	20	..	6
2	Khawaja Ahmad ..	90	..	Mohammed Raza	Baluch..	150	600	20	29
3	Allah Ou	40	..	Hasan	Parsiban	25	50	..	15
4	Karim Dad	70	..	Karim Dad ..	Baluch..	30	40	..	15
5	Deh Mirza	65	..	Mirza	" ..	10	30	..	38
6	Deh Bahadar ..	60	..	Bahadur ..	" ..	15	40	..	12
7	Deh Sharif Khan ..	300	..	Ibraheem ..	" ..	60	400	18	40
8	Deh Hussani Khan	70	..	Hussain Khan ..	" ..	20	100	20	18
9	Deh Ghulam Khan	60	..	Ghulam Khan ..	" ..	20	200	20	13
10	Deh Sad Ullah ..	50	..	Sad Ullah ..	" ..	10	80	10	9
11	Deh Gazma	22	..	Mohammad ..	" ..	12	..	..	7
12	Deh Muhammad Shah Karm.	40	..	Mohammad Shah Karm.	" ..	10	40	..	7
13	Bakhtai	50	..	Asghar	Parsiban	30	150	..	12
14	Kalukhi	30	..	Lash Karan ..	" ..	25	40	..	9
15	Deh Jahangir ..	140	..	Amir	Baluch..	90	800	8	30
16	Deh Nawab	40	..	Dad	" ..	12	50	..	10
17	Deh Muhammad Karab Ali.	120	..	Kalab Ali ..	Afghan .	80	100	2	32
18	Tilfak	70	..	Meherdil ..	Parsiban	100	200	6	23
19	Seh Khudang ..	160	..	Mir Hussain and Ali Akbar.	Baluch..	80	700	12	26
20	Deh Khanam ..	Nil	..	Shah Gul ..	" ..	..	200	..	5
21	Deh Mulla Abdullah	70	..	Syed Abdullah ..	Parsiban	50	70	2	25
22	Kand	200	..	Sherdil	Baluch ..	120	50	..	35
23	Deh Masti	35	..	Nawab	" ..	12	60	..	15
24	Zahidan	30	..	Ahmad Khan ..	" ..	15	100	2	10
25	Ali Abad	70	1	Mir Qasam ..	Parsiban	80	200	5	28

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(district) in which each village is.

Camels	Windmills.	Annual pro- duction of grain in kharwars.	No. of Sialo khanas.	Remarks.
..	..	28	12	This was a large village belonging to Sardar Sharif Khan (Sarbandi), father of Sardar Syed Khan Naro, before he escaped to the Amirs Ilaka and established himself at Khalafat. It became more or less a ruin until such time as his son, Syed Khan, returned to Seistan on the death of his father at Kabul. It was restored as an hereditary property to Syed Khan in 1886. Sardar Syed Khan mostly resides here now with his first wife and part of his people; his second wife and party reside in Daulatabad in 7th Nawar.
20	..	350	37	
..	..	35	8	
..	..	35	25	
50	..	18	..	
..	..	20	..	
20	..	550	..	This was the first village in Seistan established by the Narozi (Baluch) tribe on their coming to the country from the Nehro Hills, and was so called after their Sardar.
15	..	90	8	
8	..	32	15	
15	..	60	6	
..	..	15	..	
..	..	8	3	
..	..	90	..	
10	..	60	5	
6	..	500	8	
..	..	150	17	
..	..	260	25	
..	..	220	18	
..	..	53	..	There are three villages (seh—three) close together. A little way off are the ruins of old Khudang, this town, like many others in these parts, is said to have been destroyed by floods. The jowari and <i>palaz</i> crops of these villages are famous.
20	..	..	38	
..	..	114	..	
..	..	85	11	
..	..	20	7	
..	..	40	18	This is now but a small village situated to the north-west of ancient Zahidan. The area of Zahidan ruins show it to have been an extensive city in bygone days, and much larger than any of the ancient ruins of other cities that extend along a line north and south from Jalalabad to Shahrstan. A mistaken idea prevails that the ruins of Zahidan extends in a strip of 14 miles in length, these ruins are quite distinct and have no connection with those of Jalalabad, Rindan, Gazbar, Boli, ancient Iskil, and Kasimabad which all run in a strip north of Zahidan. Zahidan, according to ancient records, occupied an area of 2½ farsucks only, each of the above named ruins had a separate existence from the ancient capital of Zarblistan, being as it were suburbs of Zahidan. The ancient city of Dahshakh was also a separate town. Zahidan, which is represented as being the ancient capital of Zarblistan or Seistan (modern name), was a city of great fame in the time of Malik Qutab-ud-din Kyani. It was devastated and destroyed by Furrokh Shah son of Tamur. To the north and north-east of the ruins are huge sand ridges and the ruins are gradually being obliterated by the banked up sand carried along by the withering and howling north-west wind which sweeps over the open plains. The Ziariat Shaik Mahamad or Pir-i-Chihal and the Darwazai Baktiari are now the only points of interest to the numerous pilgrims who visit Zahidan to honour the <i>maus</i> of the departed Shaik. Five miles north of Zahidan ruins and a mile east of Kasim Abad ruins stands the ancient and conspicuous tower called Mil-i-Tapa, or Mil-i-Kasim Abad, a little to the east of the ancient ruins of Killah-i-Tapa. This monumental relic of man's handiwork which has stood the test of time so well is altogether outside the wall of ancient Zahidan and has been erroneously styled Mil-i-Zahidan. The ancient Kayani manuscripts show this tower to have been part of a large masjid to which was attached a large college (Madrasah) for the education of Mullas. The Namaz-i-Subh and Namaz-i-Mazhrib (morning and evening prayers) were chanted from the top of the tower summoning the faithful to pray.
15	..	150	..	

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Serial number correspond- ing with map.	Name of villages.	No. of houses.	No. of gardens.	Name of Kat Khuda.	Cart.	Cattle.	Sheep and goats.	Horses.	Donkeys.
26	Deh Jange Khan ..	40	2	Karabali Sekan- der.	Parsiban	20	60	..	16
27	Deh Nahor ..	40	..	Ghulam Ali ..	"	30	100	..	10
28	Iskil ..	140	5	Mir Abbas ..	"	100	400	30	53
29	Kasim Abad ..	80	1	" ..	"	100	300	..	30
30	Ziarat-Bibi-Dost ..	20	..	" ..	"	11	30	..	5
31	Deh Arbal Ali Akbar	120	5	Ali Akbar ..	"	30	400	9	47
32	Deh Haji Ali Akbar	60	1	" ..	"	30	100	7	27
33	Gul Mohamad Beg	50	1	Mirza Hurr ..	"	60	200	7	21
34	Shaitan ..	50	..	Gul Mohamed ..	Baluch..	12	200	2	24
35	Burj-i-Afghan ..	150	..	Sher Ali ..	"	30	300	3	30
36	Deh Asghar ..	40	2	Rajab ..	Parsiban	15	100	..	14
37	Bolai ..	150	3	Asad-ullah and Mir Anyat.	"	20	200	5	52
38	Gazbar ..	80	1	Ali Murad ..	"	60	200	5	36
39	Malik Haidri ..	120	2	Mohamed Ali ..	"	60	200	4	30
40	Seh Killah ..	50	..	Jahangir ..	"	50	150	2	15
41	Deh Buzi ..	40	..	Shah Sawar ..	"	30	100	4	12
42	Siah Sar ..	100	..	Zaman Khan ..	Baluch ..	60	100	1	37
43	Karri, or Tapa-daz	50	..	Mir Abbas ..	Parsiban	50	200	4	18
44	Bunjar ..	400	20	" ..	"	200	400	40	60
45	Deh Akbar ..	30	2	Zainal ..	"	30	..	1	12
46	Deh Jabbar ..	20	..	Mir Abbas ..	"	15	100	..	15
47	Deh Dargi ..	12	1	Asghar Ali ..	"	40	200	2	5
48	Deh Kool ..	100	2	Haji Ismail ..	"	60	150	3	30
49	Bala Khana ..	200	5	Haji Ismail ..	"	80	200	10	55
50	Taghazi ..	100	8	Mir Gul..	"	60	400	15	20

'Reconnaissance through Baluchistan and Seistan, 1897' [13r] (30/120)

21

Camels.	Windmills.	Annual pro- duction of grain in kharwars.	No. of Sialo khanas.	Remarks.
..	..	80	18	
2	..	60	10	This village is mostly occupied by Rinds.
6	1	600	48	A large and well-to-do village. All supplies available. Mir Abas, the headman of this village and Kasinabad, holds contract for <i>octroi</i> in Seistau. He rendered the Mission, throughout our stay in the country, valuable service, and is most loyally disposed to the British Sirkar. To the south-west are the ruins of old Iskil.
..	..	600	7	
..	..	10	..	There is here a notable female shrine, to which no male is permitted to enter. After a liberal donation and some pressure I gained admittance, and was told the legend connected with the Bibi-Dost.
4	1	360	22	
..	..	160	..	
..	..	160	18	Over a century ago the Kad Khuda of this village committed a diabolical rape, hence he was called Shaitan (devil). Since which the village name.
..	..	80	10	
..	..	250	40	
..	1	60	10	
..	1	260	37	The Kad-Khuda Asad-Ullah and his brother, Agabai, own half Kad Khuda rights, the other half belongs to Mir Auyat.
				This is a large well-to-do village. There are three water channels and considerable cultivation on the east and west. It is a terribly wind-stricken place, and blew a regular hurricane during our visit (18th June 1897). The surrounding country here presents a weird scene; north and south from Gazbar to Zahidan, is a desolate stretch of glaring, white, wind-swept plain, with equally glaring quaint ruins scattered around. To the north-west of present village are the ruins of Killah-i-Bolai, with ancient Bolai ruins in a line south of it. The old fort and city has many good buildings, now in ruins, and covers a considerable area.
..	..	260	35	Is the northernmost village of importance in Seistan proper. During the inundated season there is here a ferry, but on the subsidence of the waters a well-beaten track crosses the Hamoon, leading to Lash-Juwain, over which there is much traffic. Kafilas to and from Sarhad, Jalk, Seistan, Lash, and Tabas, halt here before crossing the desert to Peshawarian. The village is a collection of usual buildings, situated on a slightly elevated ground. The Hamoon waters reached within 600 yards of it during my visit (17th June 1897). As the name implies there is much tamarisk (<i>gaz</i>) about, a regular jungle of it stretching away east over the swampy 7th Nawar, holding many fine sounders of khuk (pig). A small caravansari has been recently built here to protect the kafilas from the perpetual winds (north-west), which sweep over the Hamoon in hot season and the barren plain in winter. In a temperature like the present (103 degrees) a strong gale blew from noon, subsiding towards evening. A kafilah, with 40 bales of cattle hides, <i>en route</i> to Mashad, halted here during my stay.
..	..	210	17	Supplies, except for small parties, scant. The Kad Khuda, Ali Murad, unreliable and a bit of an obstructionist.
6	..	150	10	
25	..	120	15	
15	..	125	10	
25	..	100	20	
40	3	1,200	58	A large village. Most of the country trade on the north-east belongs to Bunjar. The Mujtahid (high priest) lives here. He commands about half of the country in all religious matters. All supplies available here; good grapes cultivated; crops superior; inhabitants a more contented community than in many other places. Being under the authority of the chief priest they are less squeezed.
..	..	250	..	
..	..	50	..	
40	..	300	10	Another neat and prosperous village; glebe lands; small well-preserved fort to the west; good arable land, well cultivated, crops clean and rich. A son of Haji owns this village.
60	2	240	19	This snug little village is " <i>muft</i> ," the property of Haji Mohamed Ismail, who resides there when not at Nasratabad.
16	1	400	60	Taghazi, or Tak-i-Ghazi (<i>i.e.</i> , place of fanatics), which was the name of the place before Tamur's invasion, was one of the old defences of Seistan.
40	3	460	9	This village is " <i>muft</i> " glebe lands, the property of Mujtahid Haji Muhammad Ismail. Under the Haji administration, in comparison with other villages, it presents a snug paternal appearance.

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F

'Reconnaissance through Baluchistan and Seistan, 1897' [13v] (31/120)

22

Serial number correspond- ing with map.	Name of villages.	No. of houses.	No. of gardens.	Name of Kat Khuda.	Cart.	Cattle.	Sheep and goats.	Horses.	Donkeys.
51	Piran	140	4	Haji Ismail ..	Parsiban	60	100	5	28
52	Kachian	170	3	Darwesh Khan ..	Kayani	50	200	4	30
53	Killah-i-Nau or Sanad-Gal.	15	..	Ali Murad ..	Parsiban	10	20	..	6
54	Deh Nau	35	..	Ibrahim	"	10	80	1	15
55	Deh Rahdar ..	90	2	Hamza	"	30	200	1	25
56	Deh Ghulam Ali	20	..	Changez Khan ..	"	11	50	..	9
57	Deh Hadimi ..	130	1	Hydar	Baluch ..	70	200	3	40
58	Deh Mansuri ..	70	1	Mohamed Raza	Parsiban	50	200	6	28
59	Deh Isa	60	..	Adghar	"	20	40	..	25
60	Deh Kamali ..	40	..	Mohamed	"	15	100	..	20
61	Allah Abad ..	50	..	Hydar	"	8	20	..	22
62	Nasir Abad ..	60	..	Mir Ali Beg ..	"	40	200	4	27
63	Kalapa-baz ..	50	2	Ali Akbar ..	"	20	200	10	14
64	Kaftargi	100	..	Syed Mohamed	"	30	200	15	32
65	Burj-i-Sarband	70	..	Jahangir	Baluch	40	200	10	29
66	Kimak	200	4	Abas Khan ..	"	80	800	25	44

'Reconnaissance through Baluchistan and Seistan, 1897' [14r] (32/120)

23

Camels,	Windmills,	Annual pro- duction of grain in kharwars,	No. of Sialo Khanas,	Remarks.
32 70	1 7	280 200	9 16	Killah-i-Kachian is an old historical Kyani town; the remains of the fort are still in fair preservation. After the devastation of Zahidan by Furrok Shah, on the re-establishing of Kyani dynasty, Kachian was the capital of Kyani governors up to the time of Malik Barham Khan. Some 60 years ago it was destroyed by Hamoon incroachment. Waters were within $1\frac{1}{2}$ miles of it this year, and on two occasions only, it is stated, has the flood come so near since the above noted flooding. There is good grazing all along north by Hamoon bank: jowari and <i>palaz</i> crops were well forward. There is a lot of good cultivable land in vicinity untitled. Darwesh Khan Kayani is second son of Malik Hamza Khan (<i>vide</i> genealogical table attached).
..	..	25	..	} These two villages are also "muft," and consequently prosperous.
..	..	100	..	
14	1	100	4	
..	..	18	..	There is here also a ferry meeting the road leading to Lash, on the distant bank of the Hamoon.
20	..	550	36	
20	..	150	16	
..	..	140	..	To the south and west is a collection of ruins of ancient Allahabad and other villages. Here also we were reminded of the Lamentations of Jeremiah as in other parts of the country. Inhabitants in bitterness complain that more than the stipulated half of the products are abstracted from them by the officials, and what is left them is not in any way sufficient for their own wants, or equivalent to the seed sown, they pray that British Government may take the country and relieve them of the grinding yoke they suffer under. Inhabitants mostly Naroi Baluch.
30	1	60	8	
..	..	120	..	
..	..	175	..	Since the Yazad-i-Jard dynasty in Seistan this has been an ancient city. Though now a comparatively insignificant town, still it is one of the import commercial <i>entrepôts</i> as the kafilas radiate from here, <i>vid</i> Killah-Nao or Burj-i-Alam Khan to all quarters. The Kad Khuda Abas Khan is a Jamalzai Baluch, a tribe famous amongst their fellow-tribes for deceitfulness. Abas Khan, "the one-eyed," is true to his breeding, and gave us considerable trouble during a prolonged stay in the vicinity. The town is built in a circular form on an elevated site, on the south-west are the remains of old fort, most of the houses are built in a straggling order on the east, beneath which the old canal formerly flowed. The centre is an open space between the ridge on which stands the fort, and that on which are the majority of the habitations. The fort is now in ruins, outside and a little south is another collection of houses. Quarter-mile due west runs a high ridge, on the north and south points of which are the remains of ancient fire temples, hence the name of the ridge, viz., Atashgah. Ancient graveyards are situated on the top of the south-eastermost ridge by the fire temple. Present inhabitants are very superstitious and assert that voices and cries are frequently heard proceeding from these ruins at night and early morning, and many legends are recorded of former inhabitants. The present bed of the river, or canal, now styled the Rud-i-Seistan, has for past two years been diverted and flows some 300 yards S.S.E. of the town. During our stay it was 40 yards wide and stirrup deep, always fordable at this period of year, it becomes unfordable in March when the Helmand rises and has then to be crossed in tutins (reed boats). To the south, stretching away west beyond Warmal, run lofty pebbly strewn clay ridges the silted up deposit from former Hamoon which ancient records showed to have existed in bye-gone days instead of the inundation which now floods the north, and almost encircles Seistan, practically turning it almost into an island for the greater part of the year. There is a considerable area of good land along the basin north of the ridges, grazing plentiful, water at all times abundant. This stretch is undoubtedly the most healthy site for military camp, or permanent occupation by troops, of any part of the country. My party were in camp here for over a month, while I travelled over the country, and both the humane and equine members improved wonderfully after a residence in Nasrabad, the capital, which is at all times of the year detrimental to health.
..	..	80	..	
25	..	215	10	
45	..	100	10	
150	1	260	22	

'Reconnaissance through Baluchistan and Seistan, 1897' [14v] (33/120)

24

Serial number correspond- ing with map.	Name of villages.	No. of houses.	No. of gardens.	Name of Kat Khuda.	Cart.	Cattle.	Sheep and goats.	Horses.	Donkeys.
67	Wasloon	300	3	Jahangir	Parsiban	100	200	30	50
68	Khamak	350	2	Ghulam	"	100	400	7	50
69	Ziarat-Gah	30	..	Ghulam	"	16	25	..	6
70	Deh Ali-Jafar	40	..	Mir Mehdi	"	10	50	..	15
71	Deh Gauri	200	..	Syed Mohamed	"	60	160	6	40
72	Deh Yar Mohamed	50	1	Yar Mohamed	"	30	100	..	20
73	Deh Alari	30	..	Abas	"	12	50	..	10
74	Deh Jalai	200	..	Raza	"	160	160	..	30
75	Joteh	60	2	Haji Ismail	"	26	100	2	19
76	Killah-Zero .. ..	..	..	.. ..	"	..	Ruined	..	..
77	Karbasak	60	2	Ghulam	Parsiban	35	110	2	16
78	Said Usaf	12	..	Said Usaf	"	5	..	..	6
79	Fatah-Ullah	10	..	Taj Mohamed	"	15	..	..	2
80	Hussainabad (Bala)	800	15	Taj Mohamed	"	600	1,500	40	150
81	Killah-i-Ghulaman	..	..	Taj Mohamed	..	..	Ruined	..	..
81A	Nasratabad	50	5	Mohamed Hus- sian.	..	..	200	100	60
82	Said Mohamed	30	..	Said Mohamed	Parsiban	10	..	..	15
83	Pulki	100	..	Mohamed	"	46	60	..	20
84	Luf	150	2	Darwesh	"	70	200	2	40
85	Dashtak	140	..	Shah Gul	"	60	250	5	33

'Reconnaissance through Baluchistan and Seistan, 1897' [15r] (34/120)

25

Camels.	Windmills.	Annual pro- duction of grain in kharwars.	No. of Sialo khanas.	Remarks.
42	1	660	15	A large village chiefly occupied by Shahraki tribe.
25	..	600	3	A large village with considerable amount of good arable and pastoral land well irrigated and not infrequently almost surrounded by overflow from the main canal called Rud-i-Seistan, chiefly occupied by Shahraki tribe.
..	..	18	..	
..	..	60	..	
30	..	300	..	
..	..	80	..	
..	..	50	..	
..	..	300	26	
..	..	170	7	
..	..	..	..	Ruined.
26	..	100	8	
..	..	15	..	
..	..	20	..	
16	4	1,200	..	Hussainabad is situated close to the south of Nusratabad Fort. The Tahwildar is Mir Alum Turah, chief domestic servant of Deputy Sartip, a son of Mir Ali Beg, lately transferred to Tabas. The Russians have built a large house here, and established a Consulate since my departure from country, <i>vide</i> my report on Mission to Seistan 1897. The Mujtabid Haji Muhammad Ismail lives here, but owns as glebe lands the village of Piran (<i>vide</i> Map No. 51), &c. Although styled the "Shahr" there is no city or village. It consists of the fort only, with some wretched shops in small bazaar (<i>vide</i> sketch). The "Arg" is occupied by the Sartip, or Deputy Governor, his mother, and minor officials. The Naibul Hakmat lives in a very unpretentious house on the right of the main street leading to the bazaar, the remainder of the interior is a crowded mass of small-domed shaped hovels, occupied by a mob of ill-clad, undisciplined, opium-sodden, miserable soldiers, who compare most unfavourably with the hardy, physically well developed soldiers whom we saw when on tour with the Firman-Firma, and during a visit to Kerman in 1894. Attached is a ground plan of the fort which is of no importance as far as defence is concerned, and is rapidly falling into bad repair. A well-stocked walled-in garden is situated to the north, by which is the visitors caravansari. Water supply is from an irrigation canal on the east, where are other small gardens and a considerable amount of cultivation. There are 13 shops in the bazaar (<i>vide</i> plan of fort at No. 7), two of these are general shops and sell Russian goods. Here we procured some inferior official paper, trays with painted pictures of the Czar and <i>décôte</i> dressed ladies, Russian tea, candles, sugar, and very inferior chintz, glass bowls, and stamp of Kalians, china teapots and other ware, handkerchiefs and leather. I was careful to show the merchants of the country the difference between these and English and Indian goods, the superiority of which they were quick to recognize. There are stated to be 46 other houses in the fort, or Shahr, occupied by attendants, hangers-on, and their families. Garrison said to consist of 280 men, commanded by Yawar Muhammad Beg and two Sultans. I saw no guns here, but they may have been undergoing a condition of "dry rot" in store. There are a few more soldiers scattered in various villages throughout the country—besides which local irregulars, chiefly horsemen, are maintained by the Sardars, previously mentioned, and summoned when required. Each Sardar proceeds annually for a month or more to Tabbas. Both Sardars, Purdil Khan and Syed Khan, were the selected representatives during my stay at Seistan. The garrison are chiefly Ghainis from Birjand, and the regiment is supposed to serve here one year. The men are a mob of ill-clad, ill-disciplined, opium-sodden vicious crew. Not only here but throughout the entire country my escort of cavalry "Sind Horse" (Dera Jat Pathans) made a great impression, even in comparison with the Russian Cossacks who accompanied the Russian officers.
..	1	..	..	
..	..	25	..	
..	..	118	..	
18	1	200	6	
25	..	340	10	This village is gradually being enveloped in sand, which is swept along by the blithering north-west wind over the barren stretch to the north of the village, and has already covered many of the houses on the north face. The crops in the vicinity suffer in consequence and are half-buried in sand.

(9.7)

G

'Reconnaissance through Baluchistan and Seistan, 1897' [15v] (35/120)

26

Serial number correspond- ing with map.	Name of villages.	No. of houses.	No. of gardens.	Name of Kad Khuda.	Carts.	Cattle.	Sheep and goats.	Horses.	Donkeys.
86	Kang	70	..	Shah Gul ..	Parsiban	16	200	..	30
87	Bahramabad ..	135	2	Gulzar Khan ..	Kyani ..	90	120	3	45
88	Deh Mir	15	..	Saif-ud-din ..	Parsiban	10	20	..	5
89	Chung-i-Murghan..	35	..	Syed Mohamed..	..	25	200	2	10
90	Ibrahimabad ..	100	2	Mir Saifdin ..	..	120	200	2	30
91	Baghak	57	1	Asghar	..	30	150	2	15
92	Shah Sar, 2nd ..	70	..	Khan .. Jahan Sanjrani.	Baluch ..	50	200	3	25
93	Kool	150	..	Taj Mohamed ..	Parsiban	60	200	2	35
94	Jazinak	400	2	Mir Mehdi ..	..	300	400	15	80
95	Kundarak	..	..	Mir Mehdi ..	Parsiban	20	200	..	20
96	Ass Ghazi	50	..	Taj Mohamed ..	Baluch..	80	300	2	70
97	Deh Naw 2nd ..	150	..	Mohamed Hus- sain.	..	50	200	2	25
98A	Hussainabad ..	12	..	Shah Gul ..	Parsiban	25	20	..	5
99	Shahrstan	50	..	Mohamed Khan	Baluch..	20	20	5	14
100	Killah-Naw or Burj- i-alam Khan.	400	6	Asghar	Parsiban	200	1,000	12	80

'Reconnaissance through Baluchistan and Seistan, 1897' [16r] (36/120)

27

Camels.	Windmills.	Annual pro- duction of grain in kharwars.	No. of Sialo khanas.	Remarks.
5	1	250 250	5	Malik Gulzar Khan, third son of Malik Hamza Khan (<i>vide</i> genealogical table attached), with some followers, lives here. One-half of Government revenue of village is allowed him by the Hashmat-ul-Mulk and is all he now possesses. Amongst other old manuscripts he showed me the old Kyani title deeds (from former Persian Shahs) to Seistan lands.
35	..	25 20	25	To the south, on the site of an old fort, is a primitive powder factory, from which is produced a fair sample of rough powder. The proprietor is an Afghan refugee, and his 15 assistants are Parsibans. The Persian officials here reserve the right of making powder also by supplying the materials. About 100 kharwars is the annual output. The saltpetre only is made in summer, the powder being turned out in winter. One-tenth of the product is taken as tax. The powder is exported to Birjand Sarband and other parts. Rate of sale, about 1 seer per rupee. This is now a desolate place; the extensive ruins of the old town are a mute testimony of its earlier importance.
200	..	250	40	This village, too, is rapidly being buried in sand. A few years ago Old Jazinak was completely devastated by sand drifts, since which this village was established and already one-half of the village is now buried in sand. Ruined.
17	..	115	5	
12	..	200	..	
12	..	300	..	
60	1	590	20	There is here a ferry. It is the terminus of arrival and departure from and to Seistan on the north, which is cut for greater part of the year by a broad expanse of water. No one can cross here without permission of Deputy Sartip. Anyone wishing to leave without official knowledge must proceed by the more circuitous, round along south and thence north-west parallel with Hamoon and Palang Koh. The Birjand and Neh kafilas who came in August and September for grain travelled by this route.
..	..	70	..	
15	..	214	..	
15	..	125	12	
..	..	15	..	There are but a few wattled huts here now. The old fort and ruins of ancient Shahristan occupy a considerable area of ground on a commanding site by which runs the Rud-i-Seistah.
..	..	120	..	
100	2	800	40	The former name of this village was Sharifabad. On the escape of Tag Mahomed Khan Sarbandi from Terhan when he came hence to Seistan, he was accorded a hearty welcome by the military and civil inhabitants of this village. Many of them also joined his retreat. Mir Alum Khan, the Governor, pursued him, and, on arrival here, destroyed the fort and punished the garrison and people for their demonstrative welcome of the fugitive. Subsequently the fort was partly restored, hence the present name, Killah-Nao. The Rud-i-Seistan runs a little north of the village between it and Kimak, and during my first visit (6th July 1897) there was much waste of water and flooding, consequent on want of repairs to irrigation canals; whereas, further west to Warmal, water was not sufficient for area of cultivation. To the south is seen the remains of the old lagoon or Hamoon, called Sabz-i-Kim (Sabz, green; Kim, reed or rush). This Hamoon and Tarakum Canal, with other cultivated parts along the banks of Helman (now extinct) took off the surplus water from the Helmand in former days. The condition of affairs is now reversed, for, whereas the Hamoon is now on the north it was formally on the south. The lofty clay ridges which stretch away S.S.W. in a well-defined broad line is the silted-up deposit brought down by the Helmand, and clearly maps out the course of the waters which reached as far west as they do now by the northern route. It is stated to have flowed away <i>via</i> Warmal beyond Mir Akhuri, keeping south of Koh-i-Khwaja, possibly as now, to the skirts of the Koh-i-Palang, finally as now, reaching the Goad-i-Zarrah, through the Rud-i-Shelag. The elder present inhabitants state, and old manuscripts prove, that there was formerly very little water on the north, as it all flowed on the south. The physical features of country on the south are corroborative proof of this. The ridges and deposits of the old lake on the south are very much loftier and extensive than the deposit from the rivers entering on the north. It is recorded the Herat, Farrah, and Khash rivers formed a Hamoon on the

'Reconnaissance through Baluchistan and Seistan, 1897' [16v] (37/120)

28

Serial number correspond- ing with map.	Name of villages.	No. of houses.	No. of gardens.	Name of Kad Khuda.	Carts.	Cattle.	Sheep and goats.	Horses.	Donkeys.
101	Killah-i-Kohna, or Burj-i-Kohna.	600	11	Syed Ali ..	Parsiban	400	1,000	16	150
102	Ali Abad ..	35	..	Syed Ali ..	"	15	20	2	10
103	Deh Sokhta ..	105	..	Shah-Gul ..	"	83	200	3	35
104	Deh Khalik Dad ..	150	..	Syed Mohamed ..	"	100	150	7	55
105	Sehkoha ..	350	6	Pasand Khan ..	Baluch..	130	800	12	60

'Reconnaissance through Baluchistan and Seistan, 1897' [17r] (38/120)

29

Camels.	Windmills.	Annual pro- duction of grain in kharwars.	No. of Sialo khanas.	Remarks.
				north, but the extent of the delta of these rivers was nothing like so large as the present floods. The well-defined ridge on the north, which is not at all so high as those on the south, mark to some extent the previous condition, but, naturally, the exact geographical outline is masked by the present state of annual flooding. The rivers entering on the north and north-east naturally discharged their waters along N.N.E. border of the Herat-i-Farrah-i-Khush Hamoon, hence the depositions from these streams would affect the northern basin only, but it seems to me that such a condition in no way goes to prove that in the more distant southern portion of the low-lying Seistan there did exist a lake, in fact all historical records go to prove the contrary. Again, on the subsidence of the present waters (which takes place gradually from middle of August), the ancient and extensive ruins of Aswar-Shah-Kohlalk-Killa-Kakha, &c., as also the raised plain to the north-east on the kafila route from Gazban to Lash, which makes the limit of the Farrah Hamoon clearly demonstrate the non-existence of any northern Hamoon or lake. As the above-named ruins stretch along on the north right round to south-west in the centre of the present Hamoon. The ridges formed of depositions from the Helmand, which form a well-defined vast line on the south are also very much loftier than any of the depositions on the north, and we have been repeatedly informed that the old Hamoon floods on the south covered the dimensions previously noted, nearly reaching the southern end of Koh-i-Khwaj, but that this peculiar landmark was a part of the mainland, and not, as now, an isolated isle surrounded during flood time by an immense sheet of water. Killah-i-Nao is a fair-sized village nestling under a lofty hill on which are the remains of an old fort and other ruins. It is another important commercial emporium. There are here several well-to-do merchants. It is the point of arrival and departure of all kafilas on the south who travel <i>via</i> Kala-i-Fath—Tarakun—Gumbaz-i-Shah—Saindak (<i>vide</i> Map No. 1); from the latter stage those to Jalk and Makran go south, <i>via</i> Mirjawa, while those for Quetta, Peshin, &c., proceed east, <i>via</i> Amir Chah or Amalaf. All supplies are available in Killah-i-Nao; the area of cultivable land is large; climate and situation are salubrious in comparison with other parts of the country. The most favourable and healthy site for a camp or permanent occupation throughout the country is south of a line drawn from Nos. 66, 85, 109, 158 on Map No. 2. Killah-i-Kohna is the largest and the most important village on the south, and like Killah-i-Nao is an emporium of considerable importance; there are here also a number of merchants, <i>vide</i> page . . . Half of the revenue of this village is the property of Syed Ali Agha; he is a man of considerable influence throughout the country in all matters affecting country. He deals direct with the Hashmat-ul-Mulk, the father of the Deputy Sartip, and is in no way guided or influenced by the local officials. He is a very prejudiced person in many matters, and would not receive any visitors in the country. The Russian officer stayed in his village a few days, and desired very much to see him, but he refused. I made no attempt to break in on his seclusion; on more than one occasion he sent me very kind messages and presents of fruit. His Mirza I saw much of, he was a personal friend, we exchanged repeated visits, and he gave me considerable help, both when in camp here, and also when returning. All supplies available; lots of good grazing. Several nomad encampments of Shahozai and Yagazai (counted 154 Siah Khans) annually visit this locality. They own most of the camels grazed in country, and during this period of year (August and September) this is the best place to find transport. Considerable diplomacy and tact is required when dealing with owners, or exorbitant rates are demanded, and system of "Boycott" attempted. Sehkoha (3 miles) is the old Sarbandi capital. Pasand Khan Gorgaiz Baluch is Kad Khuda, a very plausible and crafty person. He has little if any influence, as the Gorgaiz Baluch are a subsection of the Sarbandi, and Purdil Khan is their chief. Pasand Khan was formerly a noted highway robber, and caused much trouble to the Seistan officials, so, in order to check his raiding propensities, he was married to a sister of Mer Begs (Pesh-Khidmatgar to the Hashmat-ul-Mulk), and was given Sehkoha or revenue contract. I am informed he draws no allowance from Government, and is now a peaceably
70	3	1,500	20	
6	..	60	..	
18	..	200	7	
13	..	300	10	
80	1	900	15	

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H

'Reconnaissance through Baluchistan and Seistan, 1897' [17v] (39/120)

30

Serial number correspond- ing with map.	Name of villages.	No. of houses.	No. of gardens.	Name of Kad Khuda.	Carts.	Cattle.	Sheep and goats.	Horses.	Donkeys.
106	Char-Khami ..	20	..	Nawab	Baluch ..	10	50	..	8
107	Miran Haji ..	30	..	Mir Haji ..	..	20	50	..	15
108	Deh Zulfokari ..	25	..	Sherdil ..	..	15	200	..	10
109	Kosha Pain ..	200	5	Mir Jafar, Khan Sarbandi.	..	145	400	16	40
110	Khudad Beg ..	8	1	Khudad Beg ..	..	20	50	..	5
111	Kosha Bala ..	220	2	Agha Jan ..	..	130	600	14	50
112	Shehrak ..	40	..	Aghai ..	..	15	50	..	10
113	Mohamed Abad ..	50	..	Syed Baqar ..	..	30	200	1	30
114	Negard ..	100	..	Darwesh ..	Parsiban	80	600	4	40
115	Chaling ..	600	15	Asad-ullah ..	..	350	1,000	25	120
116	Deh Barahim Koe- har.	10	..	Asad-ullah ..	..	5	50	..	3
117	Deh Mulla Ali ..	20	..	Ali Akbar ..	..	10	60	..	9
118	Deh Ismail Kambar	25	..	Mohamed Hus- sain.	..	20	40	..	10
119	Tamar Abad ..	45	..	Ghulam ..	..	20	50	1	14
120	Akbar Abbas ..	20	..	Akbar Abbas ..	..	10	200	..	5
121	Sinchuli ..	20	..	Syed Raza ..	..	10	10	..	8
122	Daudi ..	200	7	Fakir Ahmed ..	..	150	800	8	30
123	Jamalabad ..	55	1	Ali Akbar ..	..	20	50	..	15
124	Sidqi ..	350	..	Ghulam ..	..	270	1,000	15	50
125	Dad Bashi ..	30	..	.. ..	..	30	200	2	14
126	Khadri ..	30	4	Asad-ullah ..	..	22	20	..	15
127	Ala Sufi ..	35	..	Asad-ullah ..	..	14	10	..	10
128	Akbarabad ..	200	..	Asad-ullah ..	..	115	250	2	48
129	Hussan Abdullah ..	5	..	Asad-ullah ..	..	..	20	..	..
130	Hussain-i-Meshedi ..	40	..	Asad-ullah ..	..	15	100	..	18
131	Zainul-Qasam ..	20	..	Syed Daud ..	..	11	50	..	15
132	Deh Ass, 2nd ..	25	..	Sardar Purdil Khan Sarbandi.	Baluch ..	10	20	..	15
133	Abbas Kor ..	24	..	Ali Akbar ..	..	12	150	..	18
134	Podina ..	20	..	Darwesh ..	Parsiban	15	110	1	11
135	Abbas Khan ..	50	..	Abbas Khan ..	..	10	70	..	15
136	Deh Ali Akbar ..	150	..	Sardar Purdil Khan Sarbandi.	Baluch ..	70	400	2	40
137	Deh Diwana, 1st ..	30	..	Meherdil ..	Parsiban	10	65	..	15
138	Deh Jafar Shahbaz	10	..	Ghulam ..	..	3	110	..	5
139	Deh Mohamed Zainal.	10	..	Zainal ..	..	5	300	..	7
140	Deh Lutuf-ullah ..	110	..	Mohamed Azim Khan.	Kyani ..	70	220	3	45
141	Deh Mohamed Azam	50	..	Mohamed Azim Khan.	..	20	60	..	22
142	Deh Hussaina ..	45	..	Hussaina ..	Parsiban	30	50	..	15
143	Deh Akbar Jafri ..	22	..	Amir Khan ..	..	15	60	..	9
144	Deh Hussain Rais ..	15	..	Asad-ullah ..	..	5	20	..	5

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31

Camels.	Windmills.	Annual pro- duction of grain in kharwars.	No. of Sialo khanas.	Remarks.
				disposed citizen. His elder son is a chip of the old block, and like his father draws the long bow. The younger son appears to have a stronger character and physique, and would be more reliable.
				A detachment of some 40 sowars and footmen are stationed here to protect the frontier (<i>sic</i>). Excepting the citadel, the fort is a mass of ruins, as also are a number of the houses surrounding it. The entire place, gardens, &c., present a dilapidated and non-parental appearance.
				There is a large area of cultivable ground between it and Kosha Pain, a broad pebly tableland separates it from the more fertile surroundings of Killah-i-Kohna.
..	..	40	..	
10	..	42	..	
50	..	30	10	
		460	15	A thriving village in healthy area, surrounded by good cultivable land. Party were in camp here for six weeks; inhabitants very friendly, and helped us in every way. Jafar Khan, too, was a kind host, and while absent on tour supplied my escort and levies with all necessities. Mir Jafar was a noted old warrior, and is riddled with bullet wounds.
70	..	30	..	
..	..	600	25	
..	..	60	..	
..	..	40	5	
15	..	250	7	
30	2	1,560	..	A corruption of "Kolang," so called from a water bird who frequented the marshes in vicinity. A large and important village, the centre of a large area of good culturable land, well irrigated, and producing rich crops. There are several merchants here who trade with Quetta and Karachi, &c., There is also a goldsmith (native of Quetta) residing here. The Kad Khuda is a respectable man, and reliable. Supplies available.
..	..	18	..	
..	..	25	..	
..	..	35	..	
..	..	60	..	
..	..	30	8	
..	..	25	..	
80	1	500	11	
130	1	75	..	
		900	30	This is a large, thriving village. Some fine Afghan Ghilzai merchants live here, but being of Sunni religion they do not fare as well as others of Shia religion, and are not given land to cultivate. The Russian news writer married a girl of this village two years ago. The Kad Khuda Ghulam assists the said news writer much in his doings.
..	..	65	..	
..	..	35	..	
..	..	50	..	
15	..	500	10	
..	..	..	..	
..	..	60	5	
..	..	50	..	
..	..	45	..	
..	..	40	..	
..	..	32	..	
..	..	70	..	
..	..	240	..	
..	..	50	..	
..	..	15	..	
..	..	18	22	
3	..	450	..	Mohamed Azim Khan, second son of Malik Jalal-ud-din Khan (<i>vide</i> genealogical tree attached), and his brother, Ghulam Hyder Khan, and their followers, own both these villages on Government contract. They gave me much useful information, and were most hospitable and kind in their sad and fallen misfortunes. These old Kyani chiefs show the courtly manners and learning of their ancient lineage.
..	..	70	..	
..	..	75	..	
..	..	30	..	
..	..	25	..	

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Serial number correspond- ing with map.	Name of villages.	No. of houses.	No. of gardens.	Name of Kad Khuda.	Carts.	Cattle.	Sheep and goats.	Horses.	Donkeys.
145	Khiari, 1st. ..	10	..	Asad-ullah ..	Parsiban	3	25	..	5
146	Joi Baksh ..	50	..	Asad-ullah ..	"	25	10	..	18
147	Deh Hussain Mo- hamed.	10	..	Asad-ullah ..	"	..	..	..	2
148	Deh Mohamed Safar	200	..	Darwesh ..	"	115	200	2	50
149	Deh Gurg ..	40	..	Darwesh ..	"	60	250	..	26
150	Deh Tillar ..	35	..	Raza ..	"	10	50	..	15
151	Ziarat Pir Sabaz ..	..	..	.. ..	..	..	..	..	..
152	Shehr-Yari ..	50	..	Agha Jan ..	Parsiban	15	150	1	10
153	Rustum Mohamed	55	..	Agha Jan ..	"	10	200	..	25
154	Deh Allahi ..	70	..	Ghulam ..	"	16	200	..	33
155	Deh Amir Beg ..	109	..	Amir Beg ..	"	25	200	2	28
156	Taghai ..	200	..	Mohamed ..	"	112	400	4	50
157	Deh Ali Raza ..	12	..	Amir Beg ..	"	10	25	..	15
158	Tuti ..	200	..	Mohammed ..	"	160	300	8	40
159	Diwana 2nd ..	40	..	Mohammed ..	"	20	50	..	16
160	Deh Shah Gul ..	15	..	Mohammed ..	"	10	50	..	7
161	Akhund Ghulam ..	30	..	Mohammed ..	"	12	40	..	8
162	Khiari, 2nd ..	15	..	Mohammed ..	"	11	8	..	3
163	Daulatabad, T. ..	280	..	Farhad ..	"	15	800	15	56
164	Hussainabad (Pain)	230	..	Ali Murad ..	"	115	800	7	48
165	Lutak	80	..	Mohammed ..	Baluch ..	20	250	10	28
166	Pushat-i-Dashat ..	50	..	Hussain ..	Parsiban	10	200	2	15
167	Warmal	200	7	Mohammed ..	Baluch ..	114	600	4	40
168	Jalalabad	16	..		..	15	..	..	6

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33

19

Camels.	Windmills.	Annual pro- duction of grain in kharwars.	No. of Siolo khanas.	Remarks.
..	..	15	..	
..	..	85	..	
..	..	..	..	
..	..	470	..	
..	..	75	7	
..	..	70	..	
..	..	..	..	Ruined.
..	..	70	..	
..	..	70	..	
55	..	160	..	
..	..	300	..	
..	..	350	..	
..	..	50	..	
..	..	300	..	
..	..	70	..	
..	..	15	..	
..	..	40	..	
..	..	25	..	
30	..	600	..	This is the first village of importance in Southern Seistan being the entrepôts where the Sarhad and Bam-Narmishin kafilas make for on arrival in the country. The village was founded some 200 years ago by Mohamad Roza Khan Sarbandi, he also founded several adjoining villages, viz.: Hussainabad, Tuti, Sekkoha, &c. The present chief of the tribe is Sardar Purdil Khan, who resides here with his family and a strong following of the tribe who are scattered throughout Seistan. The strength of the tribe which is the most influential in the country is estimated at not less than 3,600 men. There are four merchants here, of whom Azghar Ali is the most reliable, and served the Mission well. All supplies are procurable, the culturable area is large and yields good crops. The current prices are similar to those as shown in attached list for Nasratabad. Hussainabad (Pain) is 2 miles south from Daulatabad. The Thalwidr here is Ali Khan Beg, a great scoundrel. The ground in the vicinity is much cut up and is intersected by several <i>joos</i>, which caused our entrance into Seistan to practically be by "leaps and bounds," which afforded the onlookers much merriment, particularly as my escort (5th Bombay Lancers) acquitted themselves well. A village touching the main road from Sarhad, Quetta, &c., <i>via</i> Robat and Harmak to Seistan, the first village met on arrival in country. Supplies only in small quantities available here. As its name signifies it is situated above the ridge or hill about half-way between Lutak and Warmal. There is an <i>octroi</i> office here under an agent of Mir Abas of Iskil. A very much neglected village. The area of culturable land is large, but there is at all times a paucity of water. The water is always slow in reaching here, so much being utilized by all the other villages further west along the Rud-i-Seistan, in addition to waste from bursting and overflow of the canals. Jalalabad was a large village of some 500 substantially built houses and extensive fort during Kyani occupation. It was partially swept away by encroachment of floods some 30 years ago since which it has been entirely destroyed, in 1894, by the Rud-i-Parian offshoot of the Helmand. It is now derelict, waterlogged, and surrounded by a regular lake through which we had much difficulty in wading, and a memorable night's stay here from the rapacious attentions of mosquitos. Some fine gardens close at hand, as well as an old Ziarat, were only discernable by some superior fruit trees and ancient Gohguz trees. I measured some of these latter trees which were as follows: length, 45 feet; circumference at base, 18 feet; near branches, 14 feet; another old stump was 43 feet and 16 feet circumference. This, I think, will do away with the accepted theory that trees will not grow in Seistan consequent on perpetual winds. The apathy and a system of stifling all individual enterprise has more to do in such matters and general neglect of development all over the country. In former days prior to and during the Kyani rule under Mohammed Bahram Khan, who built this fort and town, there is on all sides evidence to show that the former inhabitants understood the art of brick making and were masons and architects of no mean capability. The wainscoting, cornices, &c., in the fort and offices were covered with a first-class cement,
70	..	550	22	
..	..	120	..	
..	..	112	..	
27	..	380	7	
..	..	20	..	

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I

'Reconnaissance through Baluchistan and Seistan, 1897' [19v] (43/120)

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Serial number correspond- ing with map.	Name of villages.	No. of houses.	No. of gardens.	Name of Kad Khuda.	Carts.	Cattle.	Sheep and goats.	Horses.	Donkeys.
169	Burj-i-Nasar Khan	..	..	.. ..	..	..	..	..	..
170	Killah-i-Kohlak ..	..	..	.. ..	..	..	..	..	..
171	Kurki ..	60	..	Lashkar Khan ..	Parsiban	40	50	4	20
172	Ali Zainal ..	15	..	Ali Zainal ..	..	10	30	..	5
173	Deh Baluch ..	100	..	Shah Mohammed	Baluch ..	10	400	1	30
174	Khamak ..	135	..	Alijani ..	Parsiban	50	200	10	50
175	Sheikh Wasai ..	110	..	Shah Sowar ..	..	200	100	5	26
176	Pulgi ..	100	..	Mohammed Sharif s/o Sardar Gul- Mohammed, de- ceased.	Baluch ..	80	200	14	30
177	Deh Muradi ..	30	..	Muradi ..	Parsiban	50	20	..	10
178	Daulatabad, II. ..	150	..	Mohamed Ali ..	..	100	50	20	40
179	Deh Haji ..	300	..	Hussain ..	Baluch ..	200	150	8	58
180	Kundal ..	15	..	Kundal ..	..	50	200	3	3
181	Deh Nawroz ..	25	..	Nawroz ..	..	100	200	5	15
182	Deh Khani-Suri ..	35	..	Khani ..	Parsiban	15	..	..	14
183	Deh Jani-Suri ..	20	..	Jani ..	..	30	..	..	7
184	Deh Pahlwan ..	30	..	Mohammed ..	..	..	50	..	9
185	Margo ..	70	..	Mohamed Sharif	Baluch ..	100	200	..	25
186	Takhtapul ..	40	..	Noor Mohammed	..	30	60	1	14
187	Abas Namrudi ..	70	..	Abas ..	Parsiban	50	130	2	35
188	Mir Gul ..	25	..	Mir Gul ..	..	..	42	4	18
189	Padai ..	100	..	Noor Mohammed	Baluch ..	100	220	4	33
190	Katamak ..	25	..	Noor Mohammed	..	15	65	3	4
191	Piru ..	50	..	Piru ..	Parsiban	20	65	..	15
192	Khammar ..	100	..	Khammar ..	..	60	200	10	40
193	Deh Dost Mohamed	100	..	Dost Mohammed	Baluch ..	40	300	16	30
194	Deh Mukhtar ..	100	..	Mukhtar ..	..	14	200	9	40
195	Karku Shah ..	50	..	Sherdil ..	..	40	60	3	20
196	Deh Mohamed ..	20	..	Mohammed ..	..	15	50	..	8
197	Deh Gazma ..	40	..	Dost Mohamed ..	..	30	200	..	12
198	Deh Darwesh ..	50	..	Darwesh ..	..	30	100	..	25
199	Deh Shaikh ..	50	..	Sartip ..	Afghan ..	40	100	..	20
200	Deh Hussain-i- Hassani.	160	..	Hussain ..	Parsiban	200	500	15	80
201	Melak ..	65	..	Ibrahim ..	Baluch ..	110	400	5	48

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Camels.	Windmills.	Annual pro- duction of grain in kharwars.	No. of Sialo khanas.	Remarks.
				and the courtyards, tanks, and deep well were substantially paved with well preserved brickwork.
				A few Kyani descendants of Malik Jalal-ud-din still cling with commendable tenacity to their ancient home a few habitable houses on high ground to the south of the ruins. On the lands now called Parian, i.e., those watered by the Rud-i-Parian and an offshoot of it called Rud-i-Dashak (<i>vide</i> Map No. 11) are extensive ruins, these are called the ruins of Dashak, conspicuous amongst them are old Jalalabad, Rindan, Burj-i-Nasir Khan, Kohak, &c., these are stated to have been the capital of the country during the reign of Yakob the Potter's time somewhere about 258 Hijrah.
..	..	..	..	Ruined.
70	..	75	8	Ruined.
3	..	22	..	
28	..	250	..	
..	..	200	..	
60	..	207	19	
..	..	400	..	
				Sardar Gul-Mohammed Khan of this village was a man of considerable influence along the frontier. Since his death in 1896 his young widow (Bibi Qumar) administers the hereditary property for her son Mohammed Sharif. We were well received here and hospitably treated by the widow Qumar. Colonel Yate also stayed in camp here for some time.
..	..	45	..	
..	..	240	..	
7	..	500	..	
16	..	25	22	
45	..	35	27	
..	..	41	3	
..	..	27	..	
..	..	40	..	
..	..	110	..	
9	..	60	14	
21	..	130	41	
16	..	42	8	
30	..	220	28	
11	..	65	13	
..	..	65	..	
..	..	215	..	
15	..	260	..	
17	..	150	14	
8	..	80	..	This village is on the Afghan-Persian boundary, in 7th Nawar. Its original name was, in ancient time, Garshahsap, after an ancient Persian king of that name. Garshahsap is said to have been the capital of Zarblistan during the reign of King Garshahsap.
..	..	35	..	
24	..	70	19	
..	..	60	..	
..	..	70	..	
..	..	300	..	
15	..	125	..	Elevation, 2,088 feet. Village consists of a collection of wattle and dab houses, situated on an elevated clay ridge at the south end of 7th Nawar. Although a small village on frontier, it is important as a trade route along which the kafilas from Bokar, <i>via</i> Herat—Sabzwār—Farrah pass, as also those going to Afghanistan <i>via</i> Chakansar. A kafila arrived here, <i>en route</i> to Seh Kuha, during my visit, who gave me some useful information. The surrounding country to the north and west is under water some 4 to 8 feet deep, and a thick guz jungle fringes the old bed of Helmand. Area of tillage is on the east and south. Two years ago the Helmand changed its course, the greater bulk of water now flows through the Rud-i-Parian (<i>vide</i> map), and there is but little water in the old Helmand bed, in some parts it only contains pools. There is a ferry crossing at the mouth of Rud-i-Parian where it leaves the Helmand; the breadth of river is some 300 yards, with a deep, violent, and dangerous current (lost a horse crossing, and was carried some $\frac{1}{2}$ mile down current myself, very near going the way of the horse). Parian means abrupt, sudden, and is derived from <i>paredan</i> —to fly, hence the name of river which so suddenly changed its course. Sardar Shamas Uddin resides here, he is a nephew of Sardar Khan Jehan, of Saidak. We received a hospitable welcome here, the inhabitants along the frontier here were all anxious to know when the British Sirkar

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36

Serial number correspond- ing with map.	Name of villages.	No. of houses.	No. of gardens.	Name of Kad Khuda.	Carts.	Cattle.	Sheep and goats.	Horses.	Donkeys.
202	Deh Jahangir Khan	35	..	Jahangir	..	10	20	..	15
203	Deh Jahanabad or Mirza.	200	..	Hussain	..	100	400	..	55
204	Safar-zai	50	..	Ghulam ..	..	40	100	..	25
205	Deh Fakira	100	..	Jani ..	..	60	200	..	39
206	Deh Amir	70	..	Amir ..	..	60	100	..	45
207	Deh Shah Jahan ..	40	..	Mehardil ..	..	30	200	2	18
208	Deh Dost Moham- med II.	40	..	Dost Mohamed ..	..	20	60	..	10
209	Deh Hussain Ali ..	40	..	Hussain Ali ..	..	50	200	3	15
210	Deh Dad Shah ..	20	..	Dad-shah ..	Parsiban	10	200	..	5
211	Deh Raza	100	..	Raza ..	..	80	200	..	25
212	Deh Akhund	50	..	Akhund ..	..	70	250	5	20
213	Siadak	200	..	Yousaf ..	Baluch ..	200	800	35	60
214	Deh Amir Beg ..	50	..	Amir Beg ..	Parsiban	60	100	2	20
215	Deh Agha Khan ..	60	..	Agha Khan ..	..	40	500	2	40
216	Char-dari .. ..	..	..	.. ..	..	..	..	..	..
217	Deh Sargazi	20	..	Ali Akbar ..	Parsiban	15	150	..	5
218	Lashkaran	40	..	Lashkaran ..	Baluch ..	10	50	..	10
219	Burj-i-Mohammed Khan.	20	..	Ghulam Hussain	.. ..	100	200	..	13
220	Deh Yar-Moham- med.	100	..	Yar Mohammed	.. ..	140	200	..	30
	Total ..	19,472	180			11,616	42,010	987	5,492

NOTE.—The approximate elevation of all villages, camps, springs, passes and other places of importance are shown in Appendix

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Camels.	Windmills.	Annual pro- duction of grain in kharwars.	No. of Silo khanas.	Remarks.
				were going to occupy Seistan, as they had heard now for years the Sirkar had bought it.
		65	..	Saiyad Khuda Dad, a merchant of Milak, with six followers, arrived from Qnetta during my stay; he had taken wool and geh, and brought back piece goods and old coats, &c. He ran short of flour on the way beyond Amir Chah, and had much difficulty to pull on; he lost one man on the way from thirst and privation.
..	..	400	..	
..	..	65	..	
..	..	225	..	
..	..	110	..	
50	..	65	40	
..	..	50	..	
70	..	70	27	
15	..	30	30	
..	..	210	..	
70	..	100	45	
20	..	590	..	Sardar Khan Jehan lives here (<i>vide</i> Chapter III.); along this route kafilas plying between Afghanistan and Talk, Sarhad, Seistan, &c., halt here.
				The 7th Nawar is a difficult place to visit during flood time, as it practically becomes a little isle, in addition to being overrun with irrigation channels. The Rud-i-Parian cuts it off from Seistan; on the north is the Hamoon, the eastern arm of the Helmand being a buffer between it and Afghanistan.
				A little east of the ruins of Rindan, up to Margo, was barely traversable, being waterlogged, and only passable after 20th June. At Margo is a ferry which transported us across a rapid, treacherous, reach of muddy water, some 200 yards broad, and 4 to 6 feet deep, beyond which our tutin was pulled through an intricate maze of guz jungle, taking altogether the best part of an hour from Margo before we gladly alighted from these frail barks on dry land, and made our way on foot, in a broiling sun, through dense guz jungle, to the village of Deh Pahalan.
				In addition to other crops I note that a good deal of jow, cotton, and flax are cultivated in 7th Nawar.
..	..	72	..	
50	..	128	57	
..	..	..	..	Ruined.
..	..	32	..	
..	..	45	..	
..	..	28	17	
..	..	210	..	
2,959	36	39,967 6,640*	1,765	
		46,607		

* Annual production of small grain in Kharif crops, as jawari, &c.

(907)

K

Climate.

The altogether too unfavourable estimate of the Seistan climate, formed by other officers who have passed this way, will be found to be at variance with my experience.

Being the first European who made a prolonged stay (extending over an entire hot season) an opportunity was afforded myself and party of carefully observing the physical effects both in the inhabitants, ourselves, and the equine element (*i.e.*, horses, camels, and mules) in my transport train.

Consequent on rapid travel, during flying visits by other officers, a fair opportunity of gauging the true factors in the causation of diseases could hardly be expected. Conclusions drawn from native report (in all things greatly exaggerated) cannot be altogether relied upon.

On the principle of giving the devil his due, the climate is not at all so bad as we have been led to believe; the erroneous idea hitherto prevalent, that the country is unsuited to European occupation all the year round, can be dispelled. There is nothing to depress the bodily powers and produce the lassitude from which we suffer during a hot weather in the plains of India. Throughout the hot season the heat is tempered by northern winds, and the nights are fairly cool. There are no hardships which a moderate degree of foresight in preparation will not overcome.

During our stay in Seistan my party were under field-service tents the whole time; we travelled the entire country, walking a good deal; were repeatedly above our knees in water, often up to our waists; and, more often than I can now recollect, we all bathed in the Hamun and deep pools.

We travelled along the grassy fringe, encamping for days together quite close to the waters right round from north-east to south-west, and always slept in the open at night with a blanket or two over us. Accompanied by one or two of the party I have shot from sunrise to mid-day, both in the Hamun waters and swamps, sometimes on reed boats (*tutins*), and on other occasions wading during the very hottest days in the year (thermometer registering 110 degrees, 112 degrees, 116 degrees). Neither then or since have I personally had any fever, malarial taint, or abdominal complaint (have repeatedly suffered from both in India); and out of my entire party of 36 all told there were but two mild cases of fever amongst the cavalry sowars, and two amongst levee sowars. These I attribute more to sun exposure and fatigue fever than actual malaria. A small party of us, including myself, horses, &c., suffered from the sharp and depressing effects of severe purging, &c., being compelled to drink the saline and highly surcharged alkaline waters in the southern waters of the Hamun when caught in a violent sandstorm on the Shelag desert, and when exploring the limestone range called Palang Koh, &c., on the west.

Man and beast suffered alike, and in no case could this be attributed to climatic causes. The cause and effect were the results of an impure and poisonous water supply which, *nolens volens*, we were all forced to drink.

We all felt the heat crossing the intervening deserts of Baluchistan, much more than while in Seistan, but this may possibly be due to long, rapid marches, want of condition, and sudden change from cold of Quetta to great heat, and a paucity of water at all times bad.

The hot weather favoured our endeavours to be industrious, and we were much in the open. The repeated tours, which alone kept the party fit in such a country at this season of the year, enabled us to verify by personal observation each detail which had also been otherwise compiled while halting.

Seasons
and winds.

There are four seasons of the year, viz. :—

Spring	April to June (Bahar).
Summer	July to September (Lawar).
Autumn	September to December (Tirmah).
Winter	December to March (Zamistan).

There is a maximum of hot weather and a minimum of cold, neither of which can be considered very vigorous. The transition of hot weather to cold is short and sudden.

The winds might be said to be almost perpetual. The light gales of wind, styled the Bad-i-Bahar, always commence in the middle of May; it blows steadily all day, rising about 9 o'clock a.m., and falling about 4 o'clock p.m.; it is most refreshing, reducing the temperature considerably by day, and rendering the nights cool, the early mornings being not unfrequently chilly. From the middle of July, when the Bad-i-Bahar becomes hotter,

it is called the Bad-i-Lawar (poisonous hot wind), this continues to blow with some violence, on occasions, into September, reaching its maximum intensity of heat between 16th and 30th July. A howling warm wind blows throughout the day; during this period the landscape is enveloped in dust and haze, obscuring all but near objects. Judging by this experience, and the accounts of the Bad-i-Zamistan, it seems as if all the winds of Northern Persia, Herat and Turkistan had arranged a meeting, and, arrow-like, direct their united forces on Seistan, determining to have a real good time over this flat, featureless and ruin-scattered country.

These inland hurricanes, starting without any warning, lasting so long, and in the hot season, are to me unaccountable, more so as they are stronger during the daytime up to 3 o'clock p.m. than during the night. This year Lawar has set in earlier by 11 days than usual, having begun (on the 19th of the moon) in June.

During Zamistan, there are strong gales of cold wind, and during 25* days of this period, in different months, the winds become very severe. In each of these periodic wind visitations their advent is fixed by a bunch of stars, called *palam*, coming from the west and meeting the full moon at any time during the night. The resistance caused by the meeting of these stars with the moon is stated to cause the winds to become colder, and these are styled Bad-i-Zamistan.

The autumn, which is marked by the commencement of the Bad-i-Tirmah, is a pleasant, mild season; all the kafilas start from the country at this period.

The gales, commencing with the Bad-i-Zamistan, is styled "Bad-i-sad-i-bistroz" (wind of 120 days); it is stated never to last more than 80 days. During this season, raw biting north winds blow, frosts are prevalent, thermometer registering 35 degrees of frost. Amongst a community of ill-fed, sparsely-clad, poverty-stricken and much oppressed people, such weather is indeed trying, bringing its attendant train of disease, such as rheumatism, chest affections, abdominal complaints, lumbago, ophthalmia, &c.

The season of 1897 was considered an ordinary type of Seistan season, but somewhat hotter in comparison with the last 3 years.

Taking the climate as a whole, and judging by the physique, energy and labour performed, even in the hot season, I am forced to the conclusion that, the climate, in comparison with some other parts of Persia, is certainly much better.

Bampur, Jaruft, Makran, Rudbar, of which I have had personal experience, are much worse, and the Sardars and Sawars told me that Tabas was far worse and hotter; also Nasratabad and Bam-Narmishir on the south-west.

The water-logging of the soil by Helmand floods (want of proper head canals) and the meteorological conditions, which result from it in warm weather, are factors in the production of malaria; yet a water-logged condition of soil, although aiding in the causation of malaria, will not of itself produce it unless the ground be rank with vegetable decaying matter and there be extremes of temperature. Peculiarities of climate and immunity from malaria.

The immunity of the inhabitants outside the area of this inundation, from malarial taint, is singularly noticeable, and amongst the nomads, who camp along its bank, and even follow aquatic pursuits (*i.e.*, ferrying, fishing, shooting, reed-gathering, &c.), I saw little if any fever, and never met a case of enlarged spleen or liver, such as we find daily in India. Those who live in the north-east do suffer from fever and have an anemic appearance, but I am inclined to the belief that bad diet, insufficient clothing, exposure, a total disregard for sanitary laws, and opium habit has much more to do in the production of Cohectia, bilious, remittent and other diseases met with.

It is scarcely necessary to point out that, there is a general exodus of nomads from the Hamun vicinity towards the end of September, when it begins to dry up, and the malarial effluvia begins to arise by the action of a hot sun on this water-logged mud basin.

The reeds too are all fired annually, as the young spring shoots make good coarse grazing for cattle. For days together the horizon is obscured and the atmosphere surcharged with smoke, this, and the fresh north-winds, has a purifying and beneficial effect.

Sanitation throughout the village is of the good old sort, which invites disease from afar, and promises it every hospitality; filth of every description, decomposing carcasses, the friends and boon companions of disease, lie at the door of every village; these are the hotbeds and culture grounds of disease. Sanitation.

The nomad Baluch and Ghainies, who wander and graze along the Hamun fringe the greater part of the year, who live fairly well, are warmly clad and work hard, are

* 9 days in January, 10 days in February, 6 days in March 25 days.

noticeably more healthy than the garrison and Parsiban folk, who lead a lazy life, are habitual opium and shangarif smokers, and addicted to vicious habits.

I trust I may be pardoned for entering so into detail on climate; my apology for so doing is its great importance, in the event of any future policy we may be forced to adopt, with regard to this country.

Population.

Taking the total number of houses in the overleaf compilation, viz., 19,472, and allowing each house to contain three people, a reasonable estimate (allowing for empty houses constantly seen), we get a total of 58,416 inhabitants plus 1,765 Siah Khanas, each containing, say, five people, i.e., 8,815 nomads.

The above figures may be relied on as a fair approximation. The elements comprising this population consist of the following:—Sarbandi, Sharaki, Naroi, Sanjarani Taoki, Kyani, Sarhadi and Ghaiani.

The following are the subdivisions of the Baluch tribe (above noted) that are met with, viz., Safarzai, Muhumsani, Sangtrash, Kashani, Aisanzia, Gorgaiz, Rakhshani (fellow kinsmen of my levée escort), Kharot, Jamalzai, Murrai, Humazaini, Sharani Reki, Galachah, Yaramadzai.

The following are among the Parsiban tribes met, viz., Jar, Ali Sufi, Arab, Sarwani, Sulimani, Barani, Tujki, Dilarami, Sinchuli, Mulla Mardan, Arjuni, Goorg, Kolikani, Ali Ahmed, Kamarki, Goshchin, Urduni, Halil, Panj Kohi, Tillas, Babzai Garak, Shalvi, Uzadi.

Resources.

The tables shown include all the flocks, cattle, camels, &c., grazed and owned by the nomads from Naiband, Sarbad, &c., who pasture their flocks in the country. Some go over into Afghanistan, where without any distinction either Parsiban or Baluch, they profess Suni religion, and hence on payment of grazing tax are not molested, temporarily encamping by the villages throughout the country. To the above may be added some 30 mules. We saw a few in the fort at Nasratabad, also a few more at Saidak with Sardar Khan Jehan and others, in a few villages on the frontier in the 7th Nawar.

Transport.

(a.) *Camels*.—Camels are the most suitable form of transport. Those available are of a good, hardy class, well used to kafila work, and carry loads from 5 to 8 maunds, Indian scale. Amongst them are some very good breeding camels and also sowari (fast trotters), who can cover their 40 or 60 miles per diem even in this weather (June and July).

The above number could be augmented if required by some 3,000 from Dalbandin and vicinity, and from Sarbad and Damini territories by some 2,000 more; if more were required they must be brought from Peshin, Kalat, Mashkil, and Makran. During the months of July, August, and September camels suffer quite as much from flies as horses do if in the vicinity of the Hamoon.

We had little difficulty in procuring a large number of camels for transport while in the country to supply my posts on the intervening barren deserts between Seistan and Robat, &c.

We also employed a large number, laying down a six months' supply of grain at Robat post,* with a large margin to carry them on in case of boycott by Seistan officials; besides this I laid down all supplies of grain, forage, flour, &c., right up to Amir Chah (to convey the Mission back), no small amount, considering the strength of the party, &c. :—

Men	35
Horses	14
Camels	21
Mules	6

I purchased some very good *barbardari* camels at from 80 to 100 rupees, and three sowari camels at 65, 85, 110 rupees respectively. Almost all the camels are absent from the country during the cold weather on kafila work to Bandar Abbas, Quetta, Meshad, Jalk, &c.

(b.) *Donkeys*.—The donkeys are small but wiry, their powers of endurance great. They are largely used both for transport and riding. The Persian infantry in the

* This action was a considerable saving to Government, as grain rose in price before we left the country, when most of the surplus grain had been exported. This supply was procured at following rates :—

Flour	16 seers per rupee.
Wheat	19 "
Barley	37½ "
Bhusa	as 4 per maund.

provinces (I have no experience of city customs) might really be styled the "donkey corps." Each man generally has a donkey, or one per couple of men. The load these donkeys carry over long distances and bad going is surprising.

(c.) *Horses*.—There are about 1,000 horses, roughly speaking, in the country, which include those of the garrison. Some were out of the country with Syed Khan at Tabas. The breed of horse, though small, is a good, hardy, serviceable one. I saw several good stamp of brood mares in the 7th Nawar, doubtless Afghan. Very few horses could be procured, as there are only sufficient for the requirements of the country.

We counted 36 windmills in the country. They are built of parallel mud walls like a tower, so constructed as to catch the prevailing wind. To the top stone is attached an upright post supported by a cross-beam. To this is attached the rudely-constructed wooden flange on which is lashed the layers of *tutor* reeds. They are in use the greater part of the year, even in the hottest weather at certain periods of the day. We repeatedly ground our corn with them which will give some idea of the strength of the Bad-i-Lawar (poisonous wind) which blows in hot weather. In such a grain-producing country, not to speak of the almost perpetual wind, styled "Bad-i-sad-i-bis-i-roz," the absence of these windmills would indeed be singular.

Agriculture is of the most wasteful and slovenly description. Watered by the noble Helmand, which not only causes the country to be highly irrigated, but for the greater part of the year practically turns it into an island, what might it be if this the great natural necessity of any country were but controlled by head canals and the country in other hands? The staple products are wheat and barley. Jowari and cotton are grown in small quantities and are seen mostly in the 7th Nawar. Opium and tobacco are also grown in fair quantity.

The Kharif crop is very rich. Superior melons of different sorts are grown all over the country, besides which bringals, turnips, onions, *kalam* (a coarse kind of cabbage) and garlies are grown. A little henna is also cultivated for dyeing purposes.

Attached to most of the important villages are gardens containing the usual eastern fruit trees, which, if they received any attention, would yield good fruit, especially the grape crop. There are four distinct sorts of grapes, viz.:—

1. Hassani.—This grape is fairly good, of light colour, and generally has not more than two seeds.
2. Hussaini.—This grape is better than the foregoing, of still lighter colour and more delicate in form.
3. Abasi-or-Askari.—This is the best species of all. They are of light colour, are much more delicious than any of the other sort and keep longer. They will keep well for 15 days.
4. Khaya Ghulaman (slaves' food).—These are the worst sort, as their name signifies. They are of dark purple colour and are almost full of seeds.

CURRENT PRICES.

Prices current in Nasratabad for the month of June 1897.

Name of articles.	Per rupee in Hindustani weight.		Remarks.
	Md.	Seer Ch.	
Wheat, 1st class	0	22 0	
" 2nd	0	26 0	
Flour, 1st class	0	16 0	
" 2nd	0	19 0	
Barley, 1st class	1	0 0	
" 2nd	1	8 0	
Rice, 2nd class	0	2 8	1st class being unprocurable.
" 3rd	0	2 12	
Tea	0	0 15	i.e., 8 annas per lb.
Sugar, French (Qand)	0	1 4	
Tobacco	0	1 0	
Opium	0	0 1	i.e., 5 tolas per rupee.
Shingrif	0	0 0	1 tola per rupee.
Bhoosa	1	0 0	
Cotton	0	4 0	
Feathers	0	2 0	
Ghee, 1st class	0	1 8	
" 2nd	0	1 12	
Milk	0	8 0	
Fuel	1	0 0	

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Name of articles.	Per maund, or seer, or No. per rupee.			Remarks.
	Rs.	As.	P.	
Mutton	0	4	0	Per seer.
Fowl	0	3	0	Each.
Chicken	0	2	0	"
Fish	0	2	0	Per 1½ seers.
Eggs	0	2	6	Per dozen.
Brinjal	0	2	0	Per seer.
Onion	0	2	0	"
Cooly hire	0	4	0	Per day.
Mason	0	6	0	" with bread once a-day.
Blacksmith	0	6	0	Per day.
Guide	0	6	6	"
Camel hire	0	9	6	"
Donkey hire	0	5	0	"

Industries
and trades.

The permanent village inhabitants are chiefly Bazgars (agricultural labourers), the remainder being carpenters, weavers, dyers, potters, millers, masons, leather workers, and musicians. The nomads are chiefly stockowners, possessing large herds of camels, sheep, and goats. Amongst them are a class of Seyads, who, for the greater part of the year, reside on the Helmand and Hamun banks. They live entirely on the sale of fish, feathers, water birds, and working the ferry boats.

Professions.

I met with an Afghan who had seen some hospital practice in Kabul. His success as a surgeon, particularly in that delicate operation for extraction of stone in the bladder, surpassed all my previous experience.

The primitive method of operating I will briefly describe, viz., no earthly attempt at antiseptic surgery, no anæsthetic, a scrotal incision with a sharp knife, the index finger being pressed in till the foreign body was found, the small hooked (at point) horn of a gazelle guided by the finger hooked out the stone. No preliminary sounding was at all attempted. This artist was indeed proud, as well he might be, of his success, for he showed me a couple of handful of stones of all sizes and composition. He omitted to supply any statistics of death percentage or complications following his operations.

Imports,
exports,
and trade
prospects.

From what we saw there appeared to be a good deal of trade in Seistan, and there is a presumable prospect of a brisk increase if it be not interfered with by our northern rival.

The imports are English and Russian piece goods, indigo, tea (Indian), copper and brass utensils (Indian), ware (chiefly Russian, in small quantity), leather (Russian), cast-iron (small quantity), spices, dates in large quantities from Jalk and Bam. Slave girls from Bam (several were sold in August last, also camels), sugar (chiefly French), grain from Afghanistan, tobacco and old clothes from Quetta.

I could get no confirmation whatever of arms being imported through the country and reaching the frontier tribes.

The exports are grain in large quantities (unless seen, the export of grain could hardly be imagined, a lot comes in from the Afghanistan side, and is sold and reshipped to Khorassan, Bam, Sarhad, Jalk and Baluchistan), hides, feathers, wool, camels and goat's hair, ghee.

Roads and
canals.

Roads, properly so called, do not exist in Seistan, narrow well-beaten tracks alone connect one town or village with another. These are so narrow that only one animal or pedestrian can traverse them.

The water
cuts (joos).

In so highly irrigated a country the water cuts are, as may be imagined, a regular network of intricacy. They are insecurely bridged here and there with a few tamarisk boughs thrown across and covered with earth, but in many cases sheets of overflow water have to be crossed, and the unwary traveller will know nothing of the traps that lie hidden till his animal and load go souse into a canal.* One has to change one's guide repeatedly; local ones alone know the intricacies of these obstacles. In outlying districts it is impossible to get guides who know the lie of the land, so one is obliged to feel one's way cautiously.

Transport
difficulty.

The extreme difficulty of moving about in so highly irrigated a country at once proved the necessity of forming a camel corps, which I immediately proceeded to carry out.

Camel
corps.

Our own camels being the worse for wear after so rapid a journey across the deserts, and also feeling the effects of Seistan climate being used to the higher altitude of

* There was much more flooding this year consequent on the bursting of the Band-i-Kahuk, and delay in repairing it.

Quetta, I hired permanently (at 20 rupees per camel monthly), using my own saddlery and equipment. We carried our supplies and were thus independent of official opposition, portage across canals, and were enabled to move rapidly about the country, paying flying visits to my dak and outlying posts, in fact here, there and everywhere.

The geographical limits of the Hamun or Naizar are seen in Map No. II. A broad sheet of water covers the entire area, practically turning the country almost into an island for 7 months in the year, except on the south-east. In very exceptional seasons of flood only, does any overflow reach the God-i-Zarrah. This year there was no water in the Shelag river; a few intensely saline pools were found here and there along its bed. Up to 20th May the water had only reached a little south of Koh-i-Khwaja. Some of my party crossed the desert (*vide* Route No. 2) from Warmal to Makh Surkh on above date.

The limit of the 1896 flood reached a line opposite Daulatabad, and it is stated that in 1895 there was an overflow into the Rud-i-Shelag. The waters begin to subside in August, but the process is very gradual and the road is not practicable till November. Between March and November, or the middle of October, as the case may be, the Hamun is crossed in *tutins* or reed boats made of the tutor reeds. On the Helmand side, and at the ferries on the Rud-i-Parian where the current is extremely rapid, broad rafts made of tamarisk boughs lashed together and supported by hollowed pumpkins are in use. These are directed by stout swimmers, round whose necks are also pumpkins like inflated bladders. On these rafts are piled the belongings, saddlery, &c.; on top of all sits the traveller, his animal swimming behind, being tied on by a leading string. On the north-west and west the reed boats are poled along in the shallow smooth water, which varies in depth in parts.

On the Seistan side there is a broad stretch of clear water, beyond which, on the Nehbandan side, is a wide and almost impenetrable belt of lofty reeds. A deep fringe of coarse grasses surrounds the whole, and here the nomads flock to graze their herds. In the bed of the Hamun are the ancient ruins of Aswar Shah, Dargo Samur and many others.

This is a veritable sportsman's paradise; on the Hamun and Joos swarm wild-fowl of every imaginable species, who flock down from the north and winter here. Their cries are deafening, and so thick are the swans and duck that they are netted, and a large trade done in their downy feathers, which are exported to Meshed and Afghanistan; they make luxurious pillows and quilts. The pelican is also shot for his feathers and fat; the latter is a specific lubricant for rheumatism, &c., and commands a ready sale.

In addition to wild fowl, hare and partridge are numerous; on the desert to the south, wild asses, lynx, hyæna, and gazelle are plentiful; while in the mountain districts on the west and south, orial, ibex, and leopard abound. I had some fine sport all over the Hamun, bringing my *tutin* home repeatedly laden with duck and *castins*, and hundreds of eggs of the latter (which are capital eating, resembling a plover's egg), even in the months of May and June, while, in October, a few good days made one's mouth water for a further introduction during the colder weather. Several very good orial heads were also secured on the Palang Koh, during the month of September, notwithstanding the heat, tramping at so unseasonable a period. Pigs swarm in the guz jungles and swamps, and the shrill howl of the jackal nightly proclaims his presence.

There are three species of reeds:—

1. Nai—a short broad reed with fronds or leaf like a palm (a coarse cattle fodder, the young sprouts being regularly grazed after burning), hence the name Naizar, or place of Nai.
2. Tutor—a long reed over 10 feet, also broad, from which are made the boats, mattings, &c.
3. Haz—long thin reed, tufty flowery bunch on top, resembling a bulrush.

Mosquitoes, midges, gnats, &c. These pests abound in numbers. The ravages of the pestilential horse-fly (*Sabzdang*), like the wind of 120 days, is a bit exaggerated. This largish pale green coloured fly is certainly, however, very much *en evidence* and a bit of a pest; it attacks animals fresh from the country, particularly along the verdant fringe of the Hamun. On one memorable occasion, when marching without guides too close to the southern end of the Hamun, and while caught in a blinding dust storm, these flies settled on our camels and my mare, and literally devoured them. My poor mare was covered with weals and blood from ear tip to hoof, and not till I had overtaken the camels and got a large rug could they be kept off; the poor thing suffered so that she

Reeds.

Flies and other worriters.

repeatedly lay down and rolled in her pain and endeavoured to shake the obdurate brutes off. The camels too were trickling with blood in exposed parts, yet with all we lost none of them; occasionally a mild abdominal cellulitis follows, but soon passes off.

The horses, camels, and cattle of the country seem to get used to these flies, as I repeatedly saw them grazing along the Hamun bank and trans-Parian. If animals are rugged up they are protected, but they are seldom much out of their stables during the Bad-i-Lawar. The Pushagirak, a large fly-catcher, resembling the dragon-fly, is also a trifle annoying in the fall of the evening, they come in swarms, darting in and around your head and face after midges.

During the Bad-i-Lawar all these are regularly on the war path. A small red worm (*lulu* or *mirk*) frequent the Hamun waters at this period of the season; it sticks in the body of those who are engaged in aquatic pursuits, leaving a small weal that frequently forms into an ulcer.

Fish.

Fish in large numbers abound in the Helmand, Rud-i-Parian, and Rud-i-Seistan of a superior quality; they are up to 8 or 10 lbs. in weight, in size like a salmon, with soft white flesh and good eating, though bony. In the Hamun itself a dark, dirty, muddy brown coloured fish is caught, in weight up to 2½ lbs.; these have a nasty, muddy taste, by no means palatable, but are largely consumed by the inhabitants.

Locusts.

An unprecedented flight of locusts visited the country in June, which swept over the country devouring and stripping everything. Inhabitants state they visit the country every third or fourth year. They have arrived this year later than usual and have done much damage to the Kharif crop. Their arrival was too late to do much damage to the Rabi crop. One is rather inclined to be incredulous when they hear the stories related of the ravages of these pests. We had every opportunity of judging for ourselves, as they simply stripped in a few hours the large garden by our encampment belonging to the Deputy Sartip. Millions settled on all the fruit trees, lucerne and vegetable beds, and from a previously spring-like appearance everything soon presented a wintry, bare, and weird aspect.

Willow, mulberry, apple, and pomegranate trees seemed to be specially appetising, the branches being weighted down with them. As seen on the ground, the myriads of newly-hatched locusts appeared like a yellow mass covering everything and banking up the foot-paths, so much so that the horses would not face them till spurred on and ridden up to their bits; they hop about, the younger being unable to fly, and the elder, from want of space, spread their wings, jostle, and are unable to rise and are crushed in masses beneath our horses feet. Across the plain they appear like a flocculent cloud of varied tinted hue scudding along. As they advance towards maturity, they change their bright yellow hue and become pink and finally brown. The inhabitants do not destroy them and are prejudiced about killing them. They do not know that the destruction of their eggs alone will get rid of them. It is reported that at Farrah in Afghanistan, and at Bam-Narmshir, locusts also did great damage to crops and trees.

CHAPTER IV.

EXPLORATION OF THE DISTRICT IN THE WEST AND SOUTH.

Early in September we left the main camp at Kosha Pain, having as our object the exploration and survey of the mountainous country on the west and south. Misfortune dogged our steps the entire journey; on the third march we were literally devoured by millions of the "Sabzadang" flies, consequent on the advance party going too close along the swamp at the south-east end of the Hamun.

The horses being so exhausted (and in a frenzied state from the flies) after a gallop of 6 miles to intercept a gang of robbers who had attacked my Girdi post on the night of 25th August, an unforeseen consumption of water took place.

We had brought sufficient water to carry the party four marches across the salt desert, but, to add to our discomfort, a blinding saline sandstorm arose and delayed us.* It was impossible to march in the teeth of so violent a blinding and choking storm, so we had to bivouack that night and next day on the barren, saline-swept plain. As may be imagined, mid-day in this climate was fairly warm, so we were forced to cook our coffee and drink the intensely salt water at this part of the Hamun.

The following day, having made a forced march into the interstices of the hills, where we were led to believe we should find sweet water, the supply, though clear, sparkling, and inviting (and liberally partaken of by all), in a few days turned out to have a most disturbing influence on both human and equine members of the party.

The geological stratum of these hills (chiefly limestone) causes the springs at their base to be highly charged with alkaline and other salts, and the further we penetrated into the heart of these hills the more poisonous and unpalatable became the water; it was not only surcharged with the above-noted salts, but also polluted with animal and bird excreta who frequent these parts.

One well was so bad several of the party got choleraic attacks, which completely prostrated us for 36 hours. We cast ahead a few more marches to complete the reconnaissance, but fared no better in our water supply. Being now five long marches from Neh, the nearest town, and eight from our depôt, I decided to return and leave nothing to chance in the matter of further supply, though we were forced to drink this horrible stuff on the return journey. Five rapid and intensely cold night marches (to avoid the inevitable thirst by day) brought us in an exhausted condition to our depôt, where we lay prostrate with low fever and dysentery for 10 days.

The general character of the country trans-Hamun, *i.e.*, intervening between Seistan and Dash-i-Kerman, consists of innumerable parallel ranges rising to altitudes varying from 3,000 to 9,920 feet approximately. The general trend of the ranges is north-west and south-east, and they are chiefly composed of barren limestone with an outcrop of black trap and schists.

Narrow torrent beds tortuously wind their way through the hills, the ranges in the interstices being separated by narrow valleys of low spur hills, and again by broad saucer-shaped plateaux liable to inundations during rains, leaving saline crustations-like deposit after evaporation and desiccation, mapping out well-defined miniature Hamins. Scattered throughout the valleys and plateaux are numerous springs and wells (*vide* Appendix G and Map No. 2); there are no villages or settled habitations.

Nomad Baluch frequent the vicinity of springs and wells, pasturing their flocks during cold season.

The routes intersecting these hills along the dry beds of the Butak, Kundi, Turshab, Baluchad, and Hurmak rivers are practicable for horsemen and laden camels. At reasonable distances water is procurable from springs and wells, and can be relied on during the winter months. Supplies are not procurable, excepting sheep (from nomads), fuel, and camel grazing.

These hills command the roads leading to and from Neh, Nasrabad, and Sarhad. The month of September was not unpleasant in these hills, nights cold, the hot stagnant air in the confines of the valleys during the warmer months rendering them unsuitable for occupation.

* Two kafilas, respectively consisting of 54 camels and 23 donkeys, and 29 camels and 18 donkeys, with grain, were also mixed up in this storm; they were on their way to Ghain.

"Ziarat
Baba
Radar."

Up the Radar Nala is a well-known Ziarat Baba Radar, elevation 3,926 feet; here on the left bank of the Nala is a good spring. There are here two Siah Khanas of Narai Baluch—headman, "Murad"; 14 people, having two good *ramahs* (flock); camel grazing and firewood plentiful.

Ziarat-i-
Sultan.

Up Darwazgu Nala, by a spring of the same name, is Ziarat-i-Sultan, which is another much-frequented spot. On this range, Darwazgu, and on Chehal Dakhtaran, fine oorial heads are to be obtained.

Ziarat-i-
Malik-i-
Siah.

Some half-way between Robat Thana and Hurmak spring, situated on a slightly raised plateau on the right side of the Wavaila Nala, is the Ziarat-i-Malik-i-Siah, the most notable shrine throughout Baluchistan. This shrine, it is reported, was dedicated to one Malik Balach, a pious follower of Pir-i-Sultan, who was buried here, having died, some say, while on his way to Seistan, and by others it is stated while shooting on the hills surrounding, which were much frequented by him.

The Ziarat is very neatly kept and well looked after by a fakir, it is tastefully covered with stones of varied hue, snow-white predominating, large sticks surmounted with horns and streams of cloth are placed at the head, tidy paths surround it, and votaries of all sorts are strewn on the lengthy grave. The three large sacrificial stones outside the entrance path and the ground in their vicinity show that the constant stream of travellers and pilgrims on this much frequented highway, leading from Makran and Sarhad to Seistan, make frequent sacrifices of sheep and goats here, and it now somewhat resembles a shamble.

"Langars."

On the north side of the Ziarat are eleven langars of Malik, and on the south are seven langars of Pir-i-Sultan. The mass of mountains on the east and south are collectively called Koh-i-Malik Siah, but several of the prominent individual peaks have different names. The range on the west is called Nagat.

The real Koh-i-Malik range is very distinct but is not visible at all from the Ziarat, being shut out by the intervening lower ranges, viz., Koh-i-Anjir, Koh-i-Malik-i-Loap, &c.

The Rud-i-Malik is really a continuation of the Wavaila Nala which is styled Rud-i-Malik or Malik Siah Nala, from the Ziarat onwards till joined by the Rud-i-Garajarog, it bears the saintly name Malik Siah like the surrounding hills. This nala does not join Hurmak Nala, as noted by Major Jennings, it joins the Rud-i-Madan, *vide* map No. 2 and Appendix G, No. 259.

The sports-
man's stone.

Across the nala, opposite the Ziarat, is a large black stone hurled down from the hill top by the departed saint, this stone is called the Shikar-ta-Khal, or sportsman's stone, and it is related that the great Saint Malik, himself a great sportsman, gave orders that none should shoot in these hills till he could hit the stone from the Ziarat, or if he did he would have no luck in his shooting. This conspicuous stone is now a target for all desirous of fame as marksmen.

Proceeding up the nala to the east, about a mile, is a fresh spring called Malik-na-Loap-na-dir, its position is localised being at the foot of a conspicuous conical hill styled Koh-i-Malik-i-Loap (loap being Baluch for conical and dir for water).

It is indeed curious how a kindly Providence fits in the natural requirements for so many pilgrims as to supply their wants in the all-important matter of water in this otherwise arid spot.

Situated to the south-east from this conical hill is the Malik Siah range, shut out completely from view at the Ziarat, to the north and south of the aforementioned springs are two low hills, on the northermost of these is a langar to the Malik, it is quite visible on the top from the Ziarat below. I cannot help thinking this must be the peak climbed by Major Jennings, R.E.*, and not the actual peak of Koh-i-Malik Siah which overlooks the desert, and not the Ziarat, and is a conspicuous land mark from the Shelag desert. I cannot account for Major Jennings having missed the Ziarat in the nala and found it on the top of a hill hard by.

On page 8 of Colonel Bell's report is mention of having passed the Ziarat, and having made a detour a few miles back to pass Malik Siah Koh. This is quite correct; a few miles up the Wavalla nala from the Ziarat the high peak of Malik Siah with Boundary Pillar 186, planted on it by Captain McMahon, is visible to the naked eye.

There is also some misapprehension about Koh-i-Robat, or Koh-i-Malik Robat, which it is as well to clear up. It is not a separate range, the Siah range has two well-defined peaks, a northern called Malik Siah Koh, and the southern is Koh-i-Malik Robat, at the foot of which is now placed our frontier outpost called Robat Thand. Some good heads of oorial are also to be got on this range.

* Report on a journey through Western Baluchistan and Eastern Persia, by Major Jennings, R.E., page 80. See also Captain McMahon's report on Boundary Commission.—B.-C.

CHAPTER V.

LAND SYSTEM—REVENUE AND PRODUCTION, &c.

When the country came under the rule of Sartip Mir Alam Khan, he assessed the revenue at a uniform rate, at one-third of the production, and also introduced the system of making *ijaras* of the villages with contractors.

The system of land ownership is quite different from that of India, in fact there is no real owner or proprietorship, other than the Kad Khuda, or head man, of each village. The inhabitants in and around each village are considered as tenants under him. Tenant rights and responsibilities.

The land is measured by the quantity of seed sown in area at the rate of 22 maunds 20 seers per pagam* of land.

The position and responsibility of a tenant will be seen from the following :—

Out of the entire production of each pagam of land one-third is stipulated Government share; out of the other two-thirds the tenant has to give 50 maunds (equal to 7 maunds, Indian scale) to the Kad Khuda, besides the contingent expenses attendant on sowing, reaping, saving, &c.

The production of a pagam is stated to be 400 maunds (equal to about 600 maunds, Indian scale), and it takes at least five or six men, the Zemindar states, to cultivate a pagam.

The entire expenses are estimated as follows, viz. :—

	Mds.	S.	Ch.
Divani revenue	200	0	0
Kad Khuda	7	0	0
Narozi	5	0	0
Labourers	12	0	0
Barpar	2	0	0
Mistie	1	0	0
Seeds	22	20	0
Total	249	20	0

From the above it is seen that, after deducting the contingent expenses from the estimated product, all that remains to the tenant is 350 maunds 20 seers for his yearly labour and that of the Qulbars.

There are many hardships and taxes that also fall on the much-oppressed Zemindar, such as quartering a few soldiers on them to watch the crops for two months before the ripening. Hardships of tenants.

These are a great source of trouble to the Zemindar, for, in addition to their own requirements, they generally have a horse or donkey and perhaps a servant, all of whom have also to be provided for.

These gentlemen, too, if not given "palm oil," either in specie or kind, prefer reports against "these much to be pitied people," stating they graze the standing crops, &c., which brings down official wrath and the attendant train of consequences.

The revenue is collected in kind by *ijaras*, and bataing the crops by Government officials. The Mushrif makes his round on the completion of the threshing and winnowing, when the corn is made up in heaps in the open, as is the custom, and not infrequently loss in sale results, consequent on delay in bataing; but those who have craftily secured the favour of the head Mushrif have their crops bataied without any delay. Revenue, how collected.

Yet another illustration of hardships to the hardy sons of toil during harvesting, Mullahs and mendicants make a practice of riding round the country on their asses, and return home heavily laden. Indeed, the constant wail throughout the country during the harvesting was: "No one hears the cry of the toiling peasantry or lends ear to their just complaints." Indeed, the peasant rarely has more than one-third or one-quarter of the production for his own use, and it was repeatedly stated they had often

* Pagam is a measure of land ploughable in a day by a pair of oxen.

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not sufficient to maintain their families till the next season's crop. Their constant prayer was that the British Sarkar would occupy the country as soon as possible, and give them relief and proper government.

The cultivable area of Seistan, excluding Burd-i-Baramabad (temporary lands), is estimated to be 20,110 pagams.

The yearly production of wheat, barley, and other grains, at average rate of 35 maunds per pagam, is 703,850 maunds.

The Government revenue out of this, realized at the rate of one-third* by batai system, comes to 234,616 maunds.

Making the following deductions, the balance for Imperial revenue can be ascertained :—

	Maunds.
600 soldiers at 12 maunds per head	7,200
Civil officials (devani), 50 as peshkidmats, minas, &c., at 36 maunds	1,800
Wazifs and manfis	10,200
Total	19,200

This sum, deducted from the Government revenue (i.e., 234,616 — 19,200) gives a balance of 215,416 maunds, and this is kept as a khalsa revenue for sati and credit to Imperial treasury.

	Rupees.
This amount of grain, if sold at the current rate of 1 rupee 8 annas per maund (mixed wheat and barley)	323,124

To which must be added the following :—

Grazing tax	22,500
Opium at average rate of 35 maunds annually, at 5 tolas per maund	3,360
Ferry and boats dues	1,100
Octroi duty	1,600
Kharif crop revenue as recovered by contract	5,570
Grand total	357,254

Expendi-
ture.

After making deductions for expenditure under various heads—

	Rupees.
Yearly fixed remittance to Khorassan	45,000
Salaries of officials, pay and salaries of military and civil departments	18,860
Total	63,860

The balance, viz., 292,814 rupees of Indian coin, is then the approximate surplus amount for administration of the country.

We must assume that these particulars which were obtained from the revenue books are "faked," as it is naturally to the interest of the officials to show as deplorable a state of revenue as possible.

The particular point worthy of note is that after making the remittance of 45,000 rupees to Khorassan, the balance, 312,254 rupees, is supposed to be expended in the administration of the country.

The items below, of expenditure, based on local information, will give an idea of the expenditure against a considerable amount of Imperial money kept for administration :—

* Above-noted nominal Government assessment is hardly a fair test of the resources of a country, for considerable more in the way of press work, illegal extractions, both in cash and kind, &c., are enforced.

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Military salaries.

	Rupees.	Military pay.
Sartip or Sarhang, at 20,000 karans yearly ..	8,000	
Naib, at 4,500 karans yearly	1,800	
2 Mirzas, at 900 karans yearly	720	
Yawar, at 2,400 karans yearly	960	
5 Sultans, at 1,200 karans each yearly = 6,000 ..	2,400	
2 Tufangdars, at 600 karans yearly = 1,200 ..	360	
8 Gumers, at 900 karans each yearly = 7,200 ..	2,880	
580 military, at 90 karans each yearly = 42,200 ..	1,740	
Total	18,860	

After deducting this sum, viz., 18,860 rupees, the balance, 273,369 rupees, is shown in the books as Wazifas to Sardars, Mullahs, Kad Khudas, &c., for keeping irregular forces and other minor particulars, but it only comes under the head of nominal entries.

	Rupees.
Net revenue, and all other Imperial moneys ..	357,254
Remittance to Khorassan.. ..	45,000
Pay and salaries of military and civil departments	18,860
Add also cost of uniform given to military once every two years (I believe)	580
Total	64,440

This deduced from net revenue, gives 292,814 rupees, which may be called the net balance or yearly net income in the country.

As regards the country consumption and production, the following figures may be worked out:—

	Maunds.
Population 58,416 at 530* lbs. each yearly ..	621,218
Nomads (Siah Khanas) 8,825, at half of the above rate being but half the year in the country..	27,200
Total	648,418

Deducting this amount from the net production, we have 55,432 maunds surplus, Surplus an equivalent of about 2,000 tons in round numbers, and this may be taken as the grain. approximate surplus in the country.

The figures above calculated give a fair idea that Seistan, which is in no way larger in area than an ordinary Punjab tahsil, is a rich soil, and produces a handsome return, even with slovenly farming.

The country is well watered and fertile, and everything points to the possibility of considerable development in the hands of a stable Government.†

The past history, ruins, &c., all go to show that ancient Seistan was a rich and prosperous principality. The country is now fast going to ruin, and unless protected by us, must succumb to our northern rival, and not till then will it recover its former prosperity, and enjoy the blessings of good government, of which it is now entirely lacking.

The following rates for past six years will fairly show that 1897 may be called a Comparison famine year. In many places we visited, there was a general cry as to the scarcity of prices. this year's grain yield, the cause of which is explained below.

* This is the sum per head allowed by Indian Government in settlements.

† Several Baluch Sirdars and wisacres wished to know if the recent Afghan-Baluch Boundary Commission had secured the Tarakun lands from the Amir, and were disappointed to find that the British raj had not obtained them, as they said they were splendid lands, only requiring water.

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The scarcity of ghee is attributable to a paucity of grazing in Sarhad this year :—

1892.

					Maunds.	Seers.	Chitacks.
Wheat	..	..	..	..	3	30	0
Barley, per rupee	..	..	..	..	5	0	0
Ghee	..	..	..	..	0	2	10

1893.

Wheat	..	..	..	..	3	0	0
Barley, per rupee	..	..	..	..	4	10	0
Ghee	..	..	..	..	0	1	12

1894.

Wheat	..	..	..	..	3	0	0
Barley, per rupee	..	..	..	..	3	30	0
Ghee	..	..	..	..	0	2	0

1895.

Wheat	..	..	..	..	1	20	0
Barley, per rupee	..	..	..	..	2	10	0
Ghee	..	..	..	..	0	2	0

1896.

Wheat	..	..	..	..	1	5	0
Barley, per rupee	..	..	..	..	2	0	0
Ghee	..	..	..	..	0	3	0

1897.

Wheat	..	..	..	..	0	21	8
Barley, per rupee	..	..	..	..	1	2	0
Ghee	..	..	..	..	0	1	0

Cause of
failure this
year.

The years 1895 and 1896 were not considered good years, but they were better than this year.

Consequent on the bursting of the Band-i-Kohuk, and neglect to repair it for some considerable time, there was a scarcity of water all along the south, affecting most the villages further west.

It is stated that the apathy in repairing the Band was the chief factor in causing this year's scarcity in many parts.

From July onwards up to October, in many parts of the country, there is always a scarcity of water as the canals are all dry.

During this period wells are sunk in the bed of old canals or close to the villages, and water is always found at from 4 to 6 feet below the ground surface. At Kosha Pain and other standing camps I sank wells for my own and my transport supply.

Irregularity
and delayed
water
supply.

The ill-constructed and temporary *banding* of the canal, which is annually carried away at flood time, and the delay to repair it, is a source of great loss to the Zemindar.

There are no water rates, and no action appears to be in force to prevent any one local authority from monopolizing the sources of water supply of the community. West of Kimak, &c., reckless waste and insecurity of tributary feeders causes an insufficiency of water as far west as Warmal,* in consequence of which there is a considerable difference in the area under cultivation, fertility of ground, and general character of the produce. The cry in several parts was: "Oh, if we had water and it were only brought in time, then the crops would not be so poor and our labour in vain."

* The water was over a month late this year in reaching the outlying villages to the west.

The Government officials, for some reason best known to themselves, delayed batais this season, and the Zemindars having run short of their last year's stock, there will be a great scarcity of grain later on, and the people will be impatient for the new grain next season.

Not till a pacca head band is made at Kahuk can Seistan ever be what it might: "truly a land flowing with milk and honey."

The most noticeable feature which catches the eye of the traveller in these parts are the gaunt, glaring, mute ruins which are scattered all over the country, bearing silent testimony to the former prosperous and populous kingdom of Seistan. ^{Ancient ruins.}

In addition to those previously referred to (lying in a stretch north and south from that very ancient obelisk called Mil-i-Tapa or Mil-i-Kassimabar, so distinguishable a landmark in the otherwise featureless landscape), extensive ruins are to be seen at Killah-i-Takghazi, Aswar Shah, Killah-i-Zero, Jazinak, Kundarak, Shahristan, Chunj-i-Murgha Chardari, Burj-i-Muhammad Khan, on Koh-i-Khawaja, and at Dushak; but it is still further south, in the vicinity of Gudar-i-Shah,* that the most ancient and extensive ruins of all are to be seen.

A few farsakhs north-east from Gudar-i-Shah or Ziarat-i-Shah-i-Mardan are the ancient ruins of Shah-i-Gul Shun-i-Zar Nagar (city of the shining flower). History relates that this was a splendid city in bygone ages: "Here was the king's throne, and it was the capital of all the country round." ^{Angil Shahr.}

The ancient manuscripts containing a history of Seistan, now in Tehran, which were obtained by an agent of the late Shah some four years ago, makes mention of this city as the ancient "Angil Shahr." A few of the grey-beard elders called it by this name also when describing to us its former glories, which he had read of in the books above noted.

Due west from Deh Lutuf-Ullah and separated from the mainland by a broad and deep sheet of water is the modern Kuh-i-Khwaja, or historic Kuh-i-kok Kohzad. This peculiarly-isolated hill, elevated some 400 feet above the level of the plain and 2,496 feet above sea level, having about an area of 1 square mile of broken ground on its summit, was surrounded by water during our stay in the country, and could only be reached on tuttns. ^{Kuh-i-Khwaja, or Kuh-i-Atash Khana (the fire house hill).}

Tradition relates that this commanding hill has only been called Khwaja since about 1057 Hijrah (1647 Ch. era), when a pious man of Khwaja family, then living in the village of Kod, near Deh Jahanjir, was buried here at his own request. In the ancient times of Kok Kohzad this hill, it is reported, was called the Kuh-i-Atash Khana, and inhabited by people who kept themselves apart from the other inhabitants of the surrounding country.

Khwaja's pretentious mausoleum is situated on the summit to the north-east, inside which is the tomb; all round are seen the usual profusion of votive offerings. To the south, opposite the shrine, the plateau is covered all round with graves; the people of the country consider it the highest type of respectful burial to be planted up here, and on Nauruz the Deputy Governor, officials, and local quality, make a pilgrimage here.

Along the east face also are many ancient tombs, both on the skirts of the hill, and high up along the cliff sides, indeed, at first sight, I took these to be some sort of defence works, as they looked like old substantial Sangars; they must be, I think, of very ancient date.

To the south-east, nestling under the hillside and along its slope, are the extensive ruins of the ancient town of Rash Kak, which extracts from the Nama-i-Qadim ul Aquam (book of the old days of Seistan) show to have been one of the strongholds in the earlier days of Zal, father of Rustam. The remains of other ancient military defences are seen at various points on the summit. From the buildings and legends it would appear that these buildings and the city belonged to a period prior to the Arab conquest. In addition to the ruins there are large reservoirs (*Haaz*) for the collection of surface water after rain, and there seems to have been a scarcity of water in those days when the Hamun was not surrounding the hill. Our guide pointed out the site of an ancient spring to the left of the pathway leading down to the ruins of Rash Kak. This requires but sinking, when a supply of water could be tapped. Water could easily be got, too by sinking a well in the plain, but an inexhaustible hot weather supply is obtainable during the time the Hamun surrounds it. ^{Rash Kak.}

This hill completely commands the approaches to Seistan from Birjand and Neb, and could be made a strong defensive position as well as of great strategic importance. ^{Strategical importance of Kuh-i-Khwaja.}

* In Captain the Hon. H. D. Napier's report there is also mention of these ruins, as well as in Captain McMahon's Afghan-Baluch Boundary Report.

NOTES ON BIRJAND.

Birjand. Birjand is an entrepôt, second only in importance to Turbat-i-Haidari, of those in Khorassan south of Meshad, and is only eight stages from Herat.*

Officials. Amir—Haji Ismail Khan Shank-ul-Malk.
Sartip—Mahommed Ibrahim (younger brother of above).
Naib—Mustufi Mahommed Raza.
Darogha—Baharam Beg.
Rais (postmaster)—Haji Misza Mahommed Ali (Tabrizi).
Kalantar—Mahommed Kuli Khan.
Wazier—Haji Nsaf Beg.
Pesh Kidmat—Shazad Beg.
Amir Panj—Haji Perrohz Khan.

Russian secret service official. The Naib is reported by all the inhabitants to be "eating the country up, and the Shauk-ul-Mulk is not cognisant of his tyranny."

The Postmaster, Haji Mirza Mahommed Ali, who is a Tabrizi, and is well-known to the Russians at Tabriz, has been settled here by Russian influence as their accredited agent; he speaks Russian and has visited St. Petersburg and Moscow. This appointment is of significant importance, and is one of the reasons why I carefully sent no despatches through this office to Colonel Yate, Her Britannic Majesty's Consul at Meshad (*vide* Report on Mission to Seistan, p. 14).

Amir Khan (Khandahari), who lives in the bazar, late musician to Mir Alum Khan, father of Haji Ismail Khan, is very kindly disposed to all Indian travellers and helps them in every way, he has been in India himself and claims to be a British subject. He rendered my people considerable aid during their stay in Birjand.

For description of Birjand, *see* Captain Napier's report.

The fort, the residence of the Amir, is situated about a couple of miles south of the city under the slopes of Kuh-i-Mahomed Bagarim.

Garrison. Present garrison consists of—

600 infantry.
100 cavalry.
6 new pattern guns (description not known).
6 old
50 horses of artillery.

All the horses are now out in the villages grazing (22nd August 1897); no grass, and forage very scarce in Birjand now.

Birjand is not a fertile spot, and is almost dependent on Buzard and Seistan for all grain and forage.

Ibrahim Khan of Julga, who is reported to be a large landed proprietor, and who has lately built a new residence, is stated to have under his command 400 sowars and 500 infantry; there are some 1,000 Sunni Khanas on his property.

Mir Hassan Khan, a cousin of the Amir's, is reported to have 500 irregulars and footmen.

There is a weekly dāk (post) from Meshad to Seistan, *via* Birjand, kept by sowars and runners. I got our advances of several hundred rupees by this post from Colonel Yate when we ran short. It was escorted from Birjand to Meshad by my own cavalry escort.

My people stayed, by leave of the Amir (which had to be obtained before they could even enter the town) in the Amir's caravansari, situated in the centre of the city. It is a large building, containing 24 lower rooms, and a similar number of rooms on upper story. A nominal charge of $\frac{1}{2}$ to 1 kran per diem is made for rooms.

* Stages to Herat.—(1) Bust Gaz, 8 farsakhs; (2) Gazik, 9 farsakhs; (3) Shorai, 8 farsakhs; (4) Yazdan, 5 farsakhs; (5) Kaland, 5 farsakhs; (6) Moghal Bacha, 8 farsakhs; (7) Rak-i-Herat (Pahra), 6 farsakhs; (8) Herat, 6 farsakhs.—B.-C.

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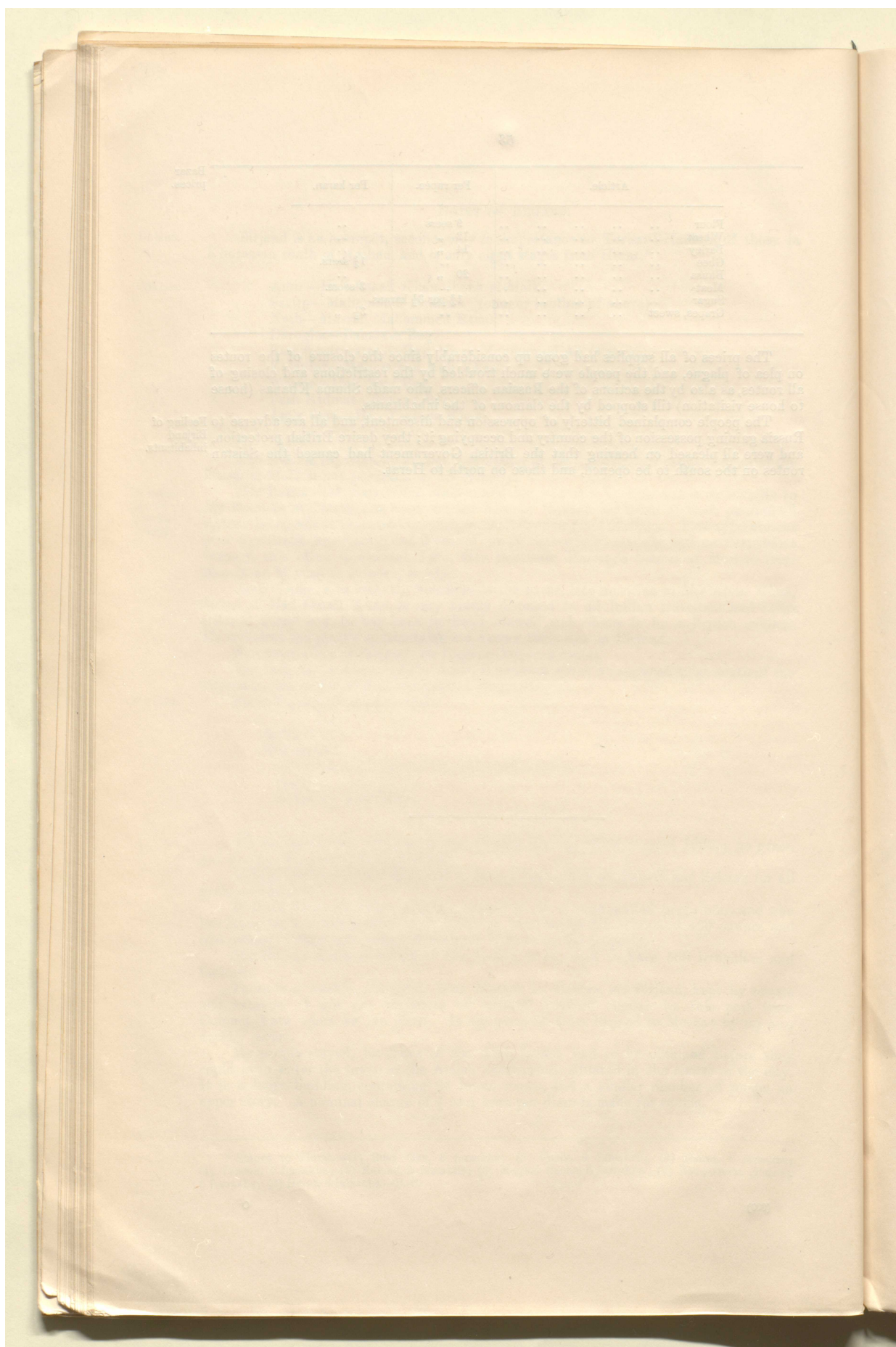
Article.						Per rupee.	Per karan.	Bazar prices.
Flour	..	..	..	..	..	9 seers	..	
Wheat	..	..	..	..	..	12 "	..	
Barley	..	..	..	..	..	14 "	..	
Ghee	..	..	..	..	..	..	1 3/4 seers.	
Bhusa	..	..	..	..	..	20 "	..	
Meat	..	..	..	..	..	..	3 seers.	
Sugar	..	..	..	..	..	1 3/4 per 3 1/2 karans.	..	
Grapes, sweet	..	..	..	..	..	..	3 1/2 "	

The prices of all supplies had gone up considerably since the closure of the routes on plea of plague, and the people were much troubled by the restrictions and closing of all routes, as also by the actions of the Russian officers, who made Shuma Khanas (house to house visitation) till stopped by the clamour of the inhabitants.

The people complained bitterly of oppression and discontent, and all are adverse to Russia gaining possession of the country and occupying it; they desire British protection, and were all pleased on hearing that the British Government had caused the Seistan routes on the south to be opened, and those on north to Herat.

Feeling of
Birjand
inhabitants.

'Reconnaissance through Baluchistan and Seistan, 1897' [29v] (63/120)



APPENDIX A.

GENEALOGICAL TABLE OF THE SARBANDI TRIBE.

(SEISTAN.)

(1) AMIR HASHAM KHAN.

(2) Amir Qambar Khan.

(2) Amir Kochak Khan.

(1) Amir Ghulam Shah.

(4) Sardar Muhammad Raza Khan, 1st.

(5) Amir Khan.

(1) Muhammad Raza Khan, 2nd.

(1) Sardar Lutuf Ali Khan.

Sardar Purdil Khan.*

(1) Ali Khan.
(Both minors and living with their father at Daulatabad.)

(2) Haji Khan.

(2) Sardar Taj Muhammad Khan.

(1) Mehrabi Khan.
(Lives at Tehran.)

(2) Ibrahim Khan.
(Lives at Daulatabad.)

(3) Sardar Najaf Ali Khan.
(Live at Akbarabad.)

(4) Rahimddil Khan.

Fateh Ali Khan.

Sultan Ali Khan.
(Lives with his father at Daulatabad.)

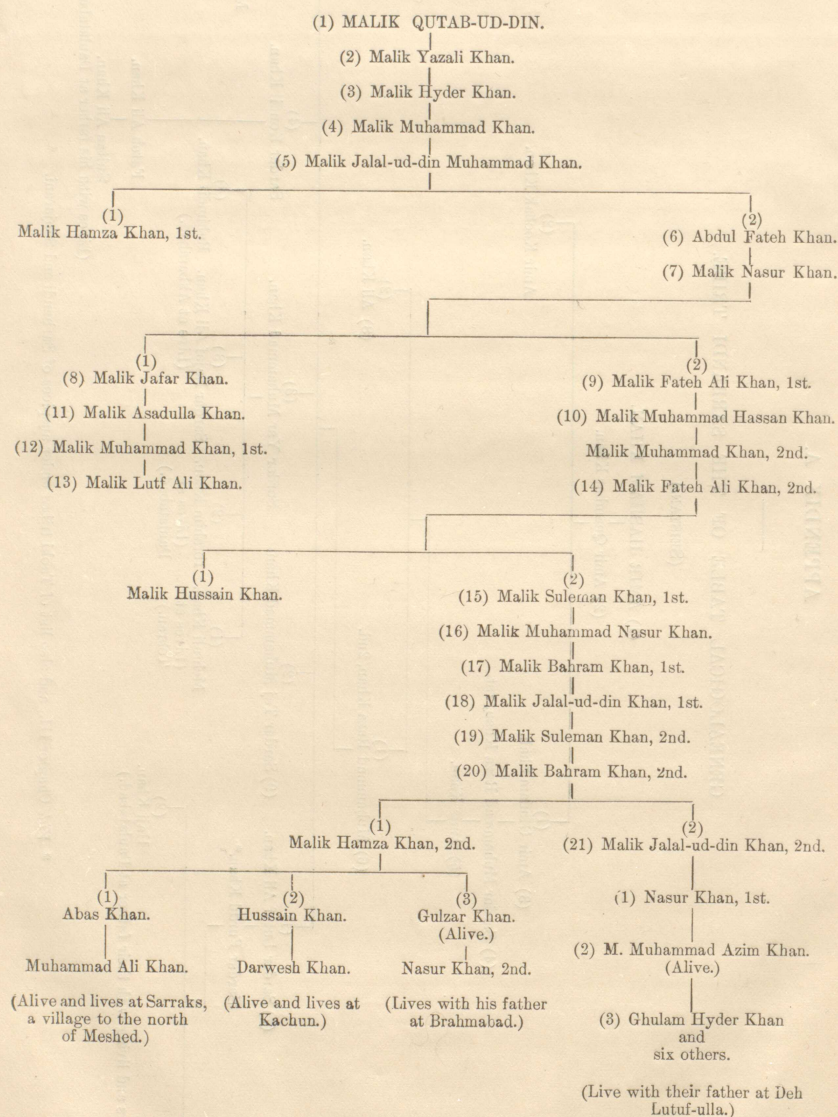
(4) Sardar Kondil Khan.

(5) Sardar Abbas Khan.
Muhammad Hussain Khan.
(Lives with his father at Killa Nao.)

* Vide Chapter III., and also list of Tacki tribes under auspices of Sarbandi and Sanjarani.

APPENDIX A—continued.

GENEALOGICAL TABLE OF KAYANI TRIBE.

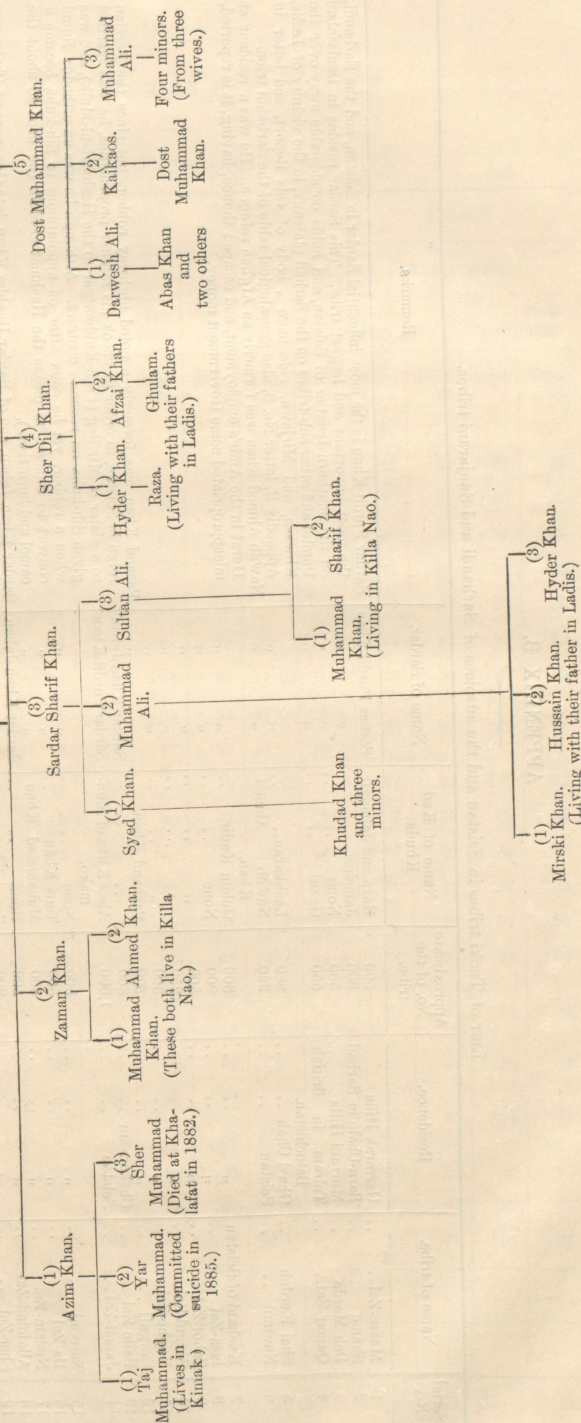


APPENDIX A—continued.

GENEALOGICAL TABLE OF THE NAROI TRIBES.

(SEISTAN.)

MIR ALAM KHAN.



APPENDIX B.

List of Taoki tribes in Seistan and the auspices of Sarbandi and Sanjarani tribes.

Serial No.	Name of tribe.	Residence.	Approximate No. of the tribe.	Name of Kad Khuda.	Name of Sardar.	Remarks.
1	Masse-Zai..	Garrarak Hills	500	Raza and Jahangir	Sardar Purdil Khan	Sardar Purdil Khan is the most influential Sardar in Seistan, and the Sarbandi, the most important and largest tribe. This Sardar resides in Daulatabad on the southern frontier of Seistan, and holds considerable sway over the Damini and other sub-tribes on the Sarhad plateaux, in the vicinity of Ladis, Khwashi, and Mirjawa, <i>vide</i> page 8, body of this Report, and letter in Appendix B, letter No. 8, also genealogical table of the Sarbandi tribe. Nawab Ahmed Khan was formerly an Afghan refugee. He was a resident at Herat in the Amir's employment, and escaped thence, having, it is reported, misappropriated some Government money.
2	Shame ..	Bara-Chale in Sarhad	800	Jansher ..	"	
3	Deh Marda ..	Murrai Hills	500	None ..	"	
4	Qamar-Zai..	Tulram in British Baluchistan.	550	Ghani ..	"	
5	Shai Kardah ..	Chazai Chah ..	880	Lashkaran..	"	
6	Nautani ..	Seistan ..	220	Nawab Ahmed Khan.	"	
7	Kashani of Seistan	"	800	Gulam Kadir	"	
8	Issa-Zai ..	"	200	None ..	"	
9	Zahor-Zai ..	"	500	"	"	
10	Sargul-Zai..	"	250	"	"	
11	Yaghe-Zai..	"	300	"	"	
12	Gorgaji ..	"	600	Pashand Khan ..	"	
13	Bade-Zai ..	Chakan-Sur ..	800	"	"	
14	Jamal-Zai..	Seistan ..	1,000	Abas Khan of Kin-mako.	Sardar Khan Jehan	
15	Sarooni ..	"	500	None ..	Sardar Purdil Khan	Pasand Khan was formerly a noted highway robber, but since the Persian reign in Seistan, in order to check his raiding propensities, he was married to a sister of Mir Beg (Pesh-Khidmatgar to the Hashmat-ul-Mulk), and was given Sih-kula on revenue contract. Although he was an orthodox Sunni when a robber, yet he soon after on appointment to Sih-kula became a convert to Shiism to please the Hashmat-ul-Mulk (he used to shoot the camel and burn them). Sardar Khan Jehan, son of Sardar Ibrahim Khan, late Governor of Chakansar (Afghan territory), lives at Saldak (No. 213 on Map No. it.), in the 7th Nawar. For further particulars of this chief, <i>vide</i> body of report at page ..
16	Ila-Zai ..	"	500	Tuos Khan ..	"	
17	Nedam-Zai ..	"	600	Muhammad Khan	"	
18	Alahdad-Zai	"	500	None ..	"	
19	Sher-Zai ..	"	800	Zangi Khan ..	Sardar Khan Jehan	
20	Nasu-Zai ..	"	500	Shah Sawar Khan	"	
21	Mandu-Zai ..	"	500	Paradin ..	"	
22	Bruban ..	"	500	None ..	"	
23	Muhammad-Zai	"	500	Wali Muhammad..	Sardar Purdil Khan	
24	Sunki ..	"	500	Abas Khan	"	
25	Murrai ..	"	900	Jahangir Khan	"	
26	Zardad-Zai..	"	1,000	Hassan Khan ..	"	
27	Ake-Zai ..	"	600	Rahmat Khan ..	"	
28	Haji-Zai ..	"	1,000	Sher-dil Khan ..	"	
29	Zerke-Zai ..	"	500	None ..	"	
30	Ede-Zai ..	"	700	"	"	
31	Meero-Zai..	"	500	"	"	

'Reconnaissance through Baluchistan and Seistan, 1897' [32r] (68/120)

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APPENDIX C.

AVERAGE temperature of each camp during April 1897.

		Temperature.						Average.			
Date.	Camp.	Morn- ing.	Noon.		Even- ing.	Barometer.		Temperature.			
			In open.	In tent.				Morn- ing.	Noon.	Even- ing.	
6th April 1897	Girdi Talab	degs. 36	degs. 70	degs. 72	degs. 58	12 a.m. 24.7	7 p.m. 24.7	degs. 36	degs. 70	degs. 72	degs. 58
7th "	Kard-gab	36	..	..	..	25.3	..	36	..	..	..
8th "	Kishingi	42	85	87	72	..	25.5	42	85	87	72
9th "	Nushki	49	92	93	85	..	26.2	49	92	93	85
10th "	Ahmad-Wall	69	93	95	87	..	26.45	69	93	95	87
11th "	Shakar-chah	61	91	93	85	..	26.95	61	91	93	85
12th "	Ridgaz-chah	64	86	87	80	..	27.	64	86	87	80
13th "	Badin-chah	65	92	98	92	27.	26.9	65	92	98	92
14th "	Yadgar-chah	62	92	96	90	27.05	26.95	62	92	96	90
15th "	Dalbun-din	61	96	99	94	27.05	26.9	} 65	96	99	93
16th "	"	69	96	97	92	27.	26.95				
17th "	Khargosh-Khan	76	99	100	92	26.75	..	76	99	100	92
18th "	Shorab	80	97	99	81	27.	27.6	80	97	99	81
19th "	Asa	67	80	82	80	27.9	27.9	67	80	82	80
20th "	Zeh	70	85	87	82	28.	27.9	70	85	87	82
21st "	Paniam	72	92	94	91	27.85	27.8	72	92	94	91
22nd "	Isa-Tahir	70	90	92	87	27.75	27.3	70	90	92	87
23rd "	Kundi	65	88	91	85	27.3	..	} 64	87	89	84
24th "	"	62	85	87	83	26.75	26.65				
25th "	Tuz-ghi	67	87	89	84	..	26.4	67	87	89	84
26th "	Amalof	61	82	84	77	..	26.9	} 63	88	91	81
27th "	"	65	93	97	84	26.95	..				
28th "	Kirtaka	70	94	98	85	26.45	26.45	70	94	98	85
29th "	Kacha	70	95	99	91	25.95	25.9	70	95	99	91
30th "	Lashkar-i-ab	71	95	102	91	26.5	..	71	95	102	91
Monthly total..		1,544	2,155	2,218	2,028	..	..	..	..	..	..
Daily average..		61.36	86.20	88.72	80.11	..	..	..	..	..	..

The noon temperature shows two readings; the first reading shows the temperature of the air in the open, the second reading shows the temperature in my tent.

'Reconnaissance through Baluchistan and Seistan, 1897' [32v] (69/120)

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APPENDIX C—continued.

AVERAGE temperature of each camp during May 1897.

Date.	Camp.	Temperature.						Barometer.	Average.			
		Morn- ing.	Noon.		Even- ing.	Temperature.						
			In open.	In tent.		Morn- ing.	Noon.		Even- ing.			
			degs.	degs.	degs.	degs.	12 a.m.	7 p.m.	degs.	degs.	degs.	degs.
1st May 1897	Robat		75	100	103	94	..	26.4				
2nd "	"		75	101	104	94	26.4	26.4				
3rd "	"		75	104	106	89	26.45	26.45	6	96	100	90
4th "	"		72	89	95	86	26.5	26.4				
5th "	"		64	89	92	85	26.45	26.4				
6th "	Hurmak		61	86	89	82	26.45	27.4	61	86	89	82
7th "	Kacholi		66	95	98	89	..	27.05	66	95	98	89
8th "	Khakha		60	100	103	96	..	28.05	6	100	103	96
9th "	Husainabad ..		67	101	104	97	..	28.	67	101	104	97
10th "	Daulatabad ..		75	100	101	97	27.9	..				
11th "	"		77	100	101	95	28.1	28.				
12th "	"		78	96	99	88	28.1	28.	77	98	99	92
13th "	"		77	94	95	90	28.1	28.				
14th "	Nasratabad ..		77	98	100	94	..	27.95				
15th "	"		77	99	100	96	28.05	27.95				
16th "	"		81	101	102	87	28.	..				
17th "	"		81	98	100	85	..	..				
18th "	"		78	94	97	81	..	..				
19th "	"		81	100	102	87	..	..				
20th "	"		78	99	101	92	..	..	79	99	101	90
21st "	"		78	97	100	85	..	..				
22nd "	"		77	95	98	90	..	27.05				
23rd "	"		78	97	99	90	..	..				
24th "	"		80	103	105	93	..	..				
25th "	"		80	101	103	90	..	..				
26th "	"		86	103	106	89	28.05	28.				
27th "	Qasamabad ..		75	104	105	91	27.95	27.75	74	105	108	94
28th "	"		72	106	110	96	..	27.75				
29th "	Dehjahangir ..		85	103	106	91	..	..	85	103	106	91
30th "	West bank of Helmand river		80	101	104	98	..	27.7	79	97	100	90
31st "	"		77	93	95	84	27.9	..				
	Monthly total		2,363	3,047	3,123	2,801	..	..	..	..	..	..
	Daily average		76.22	98.29	100.74	90.35	..	..	..	..	..	..

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APPENDIX C—continued.

AVERAGE temperature of each camp during June 1897.

Date.	Camp.	Temperature.						Average.				
		Morn- ing.	Noon.		Even- ing.	Barometer.	Temperature.					
			In open.	In tent.			Morn- ing.	Noon.	Even- ing.			
1st June 1897	Killah-i-nao	degs. 81	degs. 95	degs. 96	degs. 84	12 a.m. 27·8	7 p.m. 27·75	degs. 77	degs. 95	degs. 96	degs. 88	
2nd "	"	77	94	95	82	27·8	27·7	}	77	95	96	88
3rd "	"	72	96	97	82	..	27·75					
4th "	Nasratabad	77	105	108	95	..	27·95					
5th "	"	79	104	105	97	28·1	27·95	}	81	106	108	95
6th "	"	82	107	110	99	28·05	27·8					
7th "	"	85	106	108	95	27·9	27·85					
8th "	"	79	107	108	91	28·05	29·9	}	81	106	108	95
9th "	"	78	108	111	94	28·	27·95					
10th "	"	82	108	110	94	28·05	28·					
11th "	"	83	107	108	96	28·15	28·	}	81	106	108	95
12th "	"	84	100	102	90	28·05	28·05					
13th "	Deh Kamali (village).	78	99	100	89	28·1	27·9						78	99	100	89
14th "	South bank of Helmand.	75	91	92	83	28·	28·1	}	76	92	93	83
15th "	"	77	92	93	83	28·05	28·					
16th "	Kachyan	80	102	103	90	28·	28·						80	102	103	90
17th "	Deh Guzbar	68	103	104	92	27·85	27·8	68	103	104	92	
18th "	Deh Bolai	78	100	101	90	28·	27·85	78	100	101	90	
19th "	Jalalabad	77	96	98	84	28·	28·05	77	96	98	84	
20th "	Deh Daulatabad	74	90	93	82	28·1	28·07	74	90	93	82	
21st "	Deh Pulgi (Khamak).	74	92	..	84	28·	28·05	74	92	..	84	
22nd "	Deh Siadak	70	86	..	80	28·04	28·	}	68	85	78	..
23rd "	"	67	84	..	76	28·07	28·					
24th "	Jalalabad	71	91	93	81	28·05	..						}	70	92	93	83
25th "	"	70	93	94	83	28·2	28·05					
26th "	Iskil	70	98	99	88	28·2	28·05	}	65	99	100	87
27th "	"	65	99	101	88	28·05	28·05					
28th "	"	61	100	102	86	28·	28·						}	73	105	107	86
29th "	Killah-i-nao	67	105	106	86	28·	27·95					
30th "	"	81	105	107	85	28·	27·95					
	Monthly total	2,262	2,963	2,749	2,629	..	..	..	..	..	..	..
	Daily average	75·40	98·76	91·63	87·63	..	..	..	..	..	..	..

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'Reconnaissance through Baluchistan and Seistan, 1897' [33v] (71/120)

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APPENDIX C—continued.

AVERAGE temperature of each camp during July 1897.

Date.	Camp.	Temperature.				Barometer.		Average.			
		Morn- ing.	Noon.		Even- ing.			Temperature.			
			In open.	In tent.				Morn- ing.	Noon.	Even- ing.	
1st July 1897	Killah-i-nao	degs. 84	degs. 103	degs. 104	degs. 86	12 a.m. 28·	7 p.m. 27·87	degs.	degs.	degs.	degs.
2nd "	"	80	110	117	93	28·05	27·87	82	103	106	92
3rd "	"	82	105	107	91	28·07	27·87				
4th "	"	82	104	106	94	28·05	27·85				
5th "	"	81	98	100	94	28·03	27·85				
6th "	"	81	99	101	92	28·	27·9	81	99	100	92
7th "	"	82	..	..	..	28·	..				
7th "	Deh Sokhta	..	98	99	93	..	27·95				
8th "	"	83	99	100	91	28·05	27·95				
9th "	"	78	99	100	91	28·05	27·95	78·5	102	104	89
10th "	"	82	..	..	..	28·05	..				
10th "	Kosha Pain	..	102	103	92	..	27·9				
11th "	"	80	101	102	90	28·08	27·9				
12th "	"	77	102	105	88	28·	27·9	79	103	106	..
13th "	"	80	103	105	89	28·	27·95				
14th "	"	80	100	103	86	28·05	27·95				
15th "	"	78	100	103	87	28·05	27·95				
16th "	"	76	103	106	89	28·1	28·	73	107	110	98
17th "	Sehkoha	73	107	110	98	28·1	28·1				
18th "	Kosha Pain	82	112	113	91	28·05	27·8				
19th "	"	85	104	107	89	27·95	27·8				
20th "	"	82	100	103	92	27·95	27·85	82	109	112	93
21st "	"	78	100	102	86	28·	27·85				
22nd "	"	77	104	106	90	28·	27·85				
23rd "	"	77	105	109	90	28·	27·85				
24th "	"	76	106	109	92	28·	27·75	82	109	112	93
25th "	"	79	112	114	93	27·95	27·75				
26th "	Lutufullah	80	113	116	95	..	27·75				
27th "	"	79	112	115	95	27·9	27·75				
28th "	"	78	115	118	95	27·85	27·6	82	109	112	93
29th "	"	90	111	114	98	27·85	27·6				
30th "	"	85	104	106	87	27·9	27·7				
31st "	"	80	97	100	86	28·	27·7				
Monthly total		2,487	3,228	3,297	2,823	..	..	..	..	..	..
Daily average		80·02	104·12	106·35	91·06	..	..	..	..	..	..

'Reconnaissance through Baluchistan and Seistan, 1897' [34r] (72/120)

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APPENDIX C—continued.

AVERAGE temperature of each camp during August 1897.

Date.	Camp.	Temperature.					Barometer.		Average.			
		Morn- ing.	Noon.		Even- ing.	Temperature.						
			In open.	In tent.		Morn- ing.			Noon.	Even- ing.		
1st Aug. 1897	Lutfullah	degs. 78	degs. 99	degs. 101	degs. 85	12 a.m. 27·05	7 p.m. 27·80	degs. 78	degs. 99	degs. 101	degs. 85	
2nd "	Diwana ..	80	102	105	84	..	27·85	77	105	108	86	
3rd "	"	78	102	103	84	28·15	27·8					
4th "	"	75	104	106	87	28·1	27·8					
5th "	"	76	104	107	86	28·	27·8					
6th "	"	80	105	108	87	27·9	28·05					
7th "	"	77	112	113	89	27·95	28·05					
8th "	"	75	108	111	87	27·95	..					
9th "	Kosha Pain	75	112	114	92	28·	27·85	68	100	103	80	
10th "	"	82	102	103	89	27·9	27·85					
11th "	"	80	101	103	85	27·9	27·85					
12th "	"	74	98	100	82	28·05	27·85					
13th "	"	68	97	99	80	28·1	27·85					
14th "	"	68	98	102	83	28·	27·85					
15th "	"	65	99	103	82	28·05	27·85					
16th "	"	65	103	106	75	28·00	27·85					
17th "	"	63	104	109	84	28·	27·85					
18th "	"	70	102	105	80	28·	27·85					
19th "	"	67	101	103	80	28·05	27·85					
20th "	"	69	100	102	80	28·05	27·9					
21st "	"	67	97	99	78	28·1	27·9					
22nd "	"	65	93	95	78	28·05	27·9					
23rd "	"	60	98	101	80	28·1	27·9					
24th "	"	62	100	104	82	28·05	27·9					
25th "	"	75	100	104	78	28·05	27·85					
26th "	"	60	99	103	78	28·05	27·85					
27th "	"	65	103	106	82	28·05	27·85					
28th "	"	70	101	102	78	28·05	27·9					
29th "	"	68	101	103	74	28·05	27·95					
30th "	"	64	100	101	74	28·05	27·95					
31st "	"	63	99	102	73	28·05	27·95					
Monthly total..		2,184	3,144	3,193	2,534	..	..	..	..	..	..	
Daily average .		70·45	101·32	103·00	81·74	..	..	..	..	..	..	

'Reconnaissance through Baluchistan and Seistan, 1897' [34v] (73/120)

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APPENDIX C—continued.

AVERAGE temperature of each camp during September 1897.

Date.		Camp.	Temperature.				Barometer.		Average.			
			Morn- ing.	Noon.		Even- ing.			Temperature.			
				In open.	In tent.				Morn- ing.	Noon.	Even- ing.	
1st Sept. 1897	Warmal ..	degs. ..	degs. 99	degs. 101	degs. 80	12 a.m. ..	7 p.m. 28·05	degs. 60	degs. 99	degs. 101	degs. 80	
2nd "	" ..	60	..	..	..	28·1	..	} 60	99	101	80	
2nd "	Aspi Chah ..	..	99	100	78	..	28·1					
3rd "	" ..	60	..	..	..	28·05	..	} 60	99	100	78	
3rd "	Dahana-i-Shelag River.	..	99	100	80	..	28·1					
4th "	" "	62	..	..	..	28·05	..	} 62	99	100	80	
4th "	Langar-i-Baba Rahdar.	..	99	100	80	..	27·6					
5th "	" "	62	..	..	..	27·55	..	} 62	99	100	80	
5th "	Darwaz-gu ..	..	90	93	72	..	26·25					
6th "	" ..	64	89	90	72	26·4	26·3	} 66	94	95	77	
7th "	" ..	65	95	96	78	26·5	26·2					
8th "	" ..	65	95	96	78	26·35	26·2	} 66	94	95	77	
9th "	" ..	65	94	95	78	26·35	26·2					
10th "	" ..	66	97	100	78	26·4	26·2	} 66	94	95	77	
11th "	" ..	68	96	97	78	26·35	26·2					
12th "	" ..	68	93	95	80	26·4	26·2	} 69	94	96	80	
13th "	Chel Dukhtran ..	70	95	98	80	26·4	26·2					
14th "	" ..	70	94	95	80	26·4	26·2	} 69	94	96	80	
15th "	" ..	68	93	94	80	26·35	26·2					
16th "	" ..	67	95	96	80	26·30	..	} 76	..	..	..	
17th "	Chah Bedu ..	..	97	99	81	..	25·5					
18th "	" ..	76	96	97	80	25·64	25·5	} 75	95	96	80	
19th "	Darwaz-gu ..	75	..	..	..	26·2	..					
19th "	" ..	..	95	96	80	..	26·3	} 70	95	97	81	
20th "	Shelag Ford ..	70	92	93	78	..	26·1					
21st "	Girdi Chah ..	72	95	96	82	26·1	26·2	} 70	95	97	81	
22nd "	" ..	70	96	97	82	26·3	25·8					
23rd "	" ..	70	96	98	82	25·89	25·83	} 60	92	94	68	
24th "	" ..	70	..	..	..	27·1	..					
24th "	Chah-i-Muham- mad Raza Khan.	..	93	95	80	..	27·7	} 60	92	94	68	
25th "	Kosha-Pain ..	..	92	94	68	..	27·95					
26th "	" ..	57	94	95	68	27·98	27·97	} 60	92	94	68	
27th "	" ..	57	98	100	70	27·9	27·8					
28th "	" ..	63	95	98	70	27·9	27·8	} 60	92	94	68	
29th "	" ..	62	85	88	66	27·95	27·85					
30th "	" ..	62	88	91	67	28·05	27·93	} 60	92	94	68	
Monthly total ..		1,784	2,834	2,883	2,306	..	..					..
Daily average ..		59·45	94·45	96·1	76·85	..	..	..	..	..	..	

'Reconnaissance through Baluchistan and Seistan, 1897' [35r] (74/120)

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APPENDIX C—continued.

AVERAGE temperature of each camp during October 1897.

Date,	Camp.	Temperature.				Barometer.		Average.				
		Morn- ing.	Noon.		Even- ing.			Temperature.				
			In open.	In tent.				Morn- ing.	Noon.	Even- ing.		
		degs.	degs.	degs.	degs.	12 a.m.	7 p.m.	degs.	degs.	degs.	degs.	
1st Oct. 1897	Kosha-Pain	60	95	98	63	28.05	27.98	}	52	85	86	60
2nd "	"	58	98	101	68	28.05	27.93					
3rd "	"	63	90	94	65	28.1	27.98					
4th "	"	63	88	90	63	28.05	27.85					
5th "	"	64	82	85	63	28.02	27.85					
6th "	"	55	80	82	57	28.05	27.85					
7th "	"	53	82	85	55	28.07	27.87					
8th "	"	45	82	85	60	28.05	27.86					
9th "	"	46	80	83	56	28.07	27.85					
10th "	"	42	80	83	56	28.05	28.07					
11th "	"	42	85	90	60	28.05	28.03					
12th "	"	45	85	90	63	26.9	26.72					
13th "	"	55	83	85	60	26.5	26.4					
14th "	"	55	83	86	60	26.5	27.1					
15th "	"	53	80	83	58	27.2	27.1					
16th "	"	50	80	81	58	28.21	28.03					
17th "	"	45	80	81	60	27.34	27.2					
18th "	"	45	76	78	58	26.23	27.03					
19th "	"	43	78	80	60	24.73	26.65					
20th "	Chah Muhammad Raza.	40	..	..	..	26.7	..	40	..	..	..	
20th "	Machi (Ruins)	..	80	82	53	..	26.65	..	80	82	53	
21st "	Girdi, Well	43	80	82	54	26.7	26.65	}	43	80	82	54
22nd "	"	43	..	..	..	26.7	..					
22nd "	Dashat-i-Shar	..	85	87	..	..	..	..	85	87	..	
22nd "	Hurmak..	..	..	..	58	..	26.6	}	52	..	..	58
23rd "	"	52	..	..	..	26.65	..					
23rd "	Ziarat Malik Siah	..	82	84	..	..	..	..	82	84	..	
23rd "	Robat	..	..	..	65	..	26.55	}	53	84	87	66
24th "	"	53	83	85	65	26.6	26.55					
25th "	"	53	85	88	67	26.66	26.45					
26th "	Lashkarab	65	..	..	..	26.57	..	65	..	..	..	
26th "	Maki	..	86	88	..	..	..	..	86	88	..	
26th "	Chah-i-Bohair	..	..	..	70	..	26.45	}	70	..	..	70
27th "	"	70	..	..	..	26.5	..					
27th "	Siah Reg	..	89	90	65	..	26.4	..	89	90	65	
28th "	Saindak..	65	90	92	65	26.41	26.3	}	66	90	92	65
29th "	"	67	..	..	..	26.42	..					
29th "	Darana Koh	..	88	90	68	..	26.64	..	88	90	68	
30th "	Reg-i-Zeh	65	88	90	74	26.	26.05	65	88	90	74	
31st "	Amir Chah	63	90	92	70	26.07	..	63	90	92	70	
	Monthly total	1,601	2,613	2,690	1,917	..	..	..	..	..	..	
	Daily average	53.25	84.29	86.77	61.83	..	..	..	..	..	..	

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APPENDIX C—continued.

AVERAGE temperature of each camp during November 1897.

Date.	Camp.	Temperature.					Barometer.		Average.			
		Morn- ing.	Noon.		Even- ing.	Temperature.						
			In open.	In tent.		Morn- ing.			Noon.	Even- ing.		
		degs.	degs.	degs.	degs.	12 a.m.	7 p.m.	degs.	degs.	degs.	degs.	
1st Nov. 1897	Sultang Reg ..	58	..	..	..	..	..	58	..	..	..	
1st "	Mazzil ..	..	88	90	65	..	26.5	} 45	88	90	65	
2nd "	" ..	45	..	..	..	..	..		..	..	..	
2nd "	Jhulli ..	..	78	80	62	..	..	..	78	80	62	
3rd "	Chah-i-Sandan ..	48	..	..	..	26.8	..	48	..	..	..	
3rd "	Darigan ..	..	80	82	..	..	..	..	80	82	..	
3rd "	Meroi ..	..	..	..	65	..	26.8	} 47	..	..	65	
4th "	" ..	47	..	..	..	26.87	..		..	..	..	
4th "	Gut-i-hamoon ..	..	85	87	..	..	..	..	85	87	..	
4th "	Chah-i-Ismail ..	..	..	..	63	..	26.95	} 47	..	..	63	
5th "	" ..	47	..	..	..	26.96	..		..	..	..	
5th "	Shalgaz ..	..	85	87	..	..	..	..	85	87	..	
5th "	Dalbundin ..	..	..	..	63	..	26.9	} 47	87	88	63	
6th "	" ..	47	87	88	64	26.97	..		..	..	..	
7th "	Kundarak ..	44	..	..	..	26.93	..	44	..	..	..	
7th "	Yadgar ..	..	85	87	64	..	26.9	..	85	87	64	
8th "	Sand desert ..	43	..	..	..	26.95	..	43	..	..	..	
8th "	Padag ..	..	85	87	..	..	..	..	85	87	..	
8th "	Ridgaz ..	..	..	..	82	..	26.93	..	..	..	82	
9th "	Pagdan ..	45	..	..	..	..	..	45	..	..	..	
9th "	Shakar Chah ..	..	85	89	..	..	..	..	85	89	..	
9th "	Joor Kaian ..	..	..	..	48	..	26.95	..	..	..	48	
10th "	Nushki ..	42	83	85	..	26.3	..	42	83	85	..	
10th "	Kishingi ..	..	..	..	45	..	25.55	..	..	..	45	
11th "	Bala Kotal ..	34	..	..	..	24.2	..	34	..	..	..	
11th "	Gul-gang ..	..	81	84	45	..	24.7	} 37	81	84	45	
12th "	" ..	37	..	..	..	24.2	..		..	..	..	
12th "	Shaikh Wasal ..	..	80	82	..	..	..	..	80	82	..	
12th "	Tilari ..	..	..	..	42	..	24.65	} 28	80	82	42	
13th "	" ..	4 o.c. 28	..	..	..	24.7	..		..	..	..	
13th "	" ..	..	12 o.c. 80	82	..	..	..	}	..	..	..	
13th "	Quetta ..	..	3 o.c. 72	74	39	..	24.3		..	72	74	39
	Monthly total ..	565	1,154	1,184	747	..	..	..	..	..	..	
	Daily average..	43.4	88.76	91.07	57.4	..	..	..	..	..	..	

'Reconnaissance through Baluchistan and Seistan, 1897' [36r] (76/120)

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APPENDIX D.

ANEROID readings showing the approximate elevation of each camp, spring, pass, and other place of special interest during the journey.

Date.	Place.	Hour.	Aneroid.	Approximate height.	Remarks.
				ft.	
6th April 1897	Quetta ..	2 p.m. ..	24.5	5,511	Owing to the rapid movements of the Mission, heat prevailing, varied hours of marching, besides much other work, regular observations could not be carried out. Observations were taken on all high peaks and passes crossed, in addition to places of halt. For further particulars of weather changes, prevailing wind, &c., the reader is referred to the meteorological observations, Appendices G, H, and I.
6th "	Girdi Talab ..	7 " ..	24.7	5,374	
7th "	" ..	6 a.m. ..	24.7	5,317	
7th "	Kanak Camp. ..	11.30 a.m. ..	24.75	6,010	
7th "	Barak Pass ..	3.35 p.m. ..	24.15	5,260	
7th "	Kard Gab ..	8.45 " ..	24.8	5,376	
8th "	" ..	6.45 a.m. ..	24.8	5,317	
8th "	Chedal Pass, 1st ..	9 a.m. ..	24.7	4,474	
8th "	" 2nd ..	11.25 a.m. ..	24.75	4,363	
8th "	Kishangi ..	5 p.m. ..	25.5	4,474	
9th "	" ..	6.45 a.m. ..	25.6	4,034	
9th "	Pass, 1st ..	9.10 " ..	25.5	3,709	
9th "	" 2nd ..	9.50 " ..	25.95	3,405	
9th "	Nushki, watermill ..	10 a.m. ..	26.35	2,694	
9th "	" ..	6.30 p.m. ..	26.2	2,859	
10th "	" ..	7 a.m. ..	26.15	2,870	
10th "	Ahmad-wall ..	6.30 p.m. ..	26.45	2,911	
11th "	" ..	6.30 a.m. ..	26.6	2,911	
11th "	Shakar-chad ..	3 p.m. ..	26.9	3,122	
11th "	" ..	7.30 p.m. ..	26.95	2,859	
12th "	" ..	6.30 a.m. ..	27.	2,911	* Violent storm accompanied by thunder, lightning, and rain on night of 18th.
12th "	Pass ..	12 p.m. ..	26.9	1,832	
12th "	Ridgaz ..	1.15 p.m. ..	26.95	1,983	
12th "	" ..	7.30 " ..	27.	2,137	
13th "	" ..	6.30 " ..	27.	2,547	
13th "	Badin-chad ..	12 p.m. ..	27.	3,175	
13th "	" ..	7 p.m. ..	26.9	3,547	
14th "	" ..	6.30 a.m. ..	27.	3,440	
14th "	Yadgar-chah ..	11 a.m. ..	27.05	3,601	
14th "	" ..	7 p.m. ..	26.95	3,655	
15th "	" ..	6 a.m. ..	27.05	3,547	On hill to east.
15th "	Pishuk ..	12 a.m. ..	26.95	3,601	
15th "	Dalban-din ..	5.30 p.m. ..	26.9	3,655	
16th "	Karir ..	7 a.m. ..	27.	3,547	
16th "	" ..	3.45 p.m. ..	26.95	3,601	
16th "	Khargosh Khan ..	11 p.m. ..	26.75	3,655	
17th "	" ..	7 a.m. ..	26.75	3,547	
17th "	" ..	1.45 p.m. ..	26.75	3,601	
17th "	Shorob ..	8 p.m. ..	27.	3,655	
18th "	" ..	7 a.m. ..	27.	3,547	
18th "	Asa Well* ..	9 p.m. ..	27.6	3,601	
19th "	" ..	8 a.m. ..	27.9	3,655	
19th "	" ..	2 p.m. ..	27.9	3,547	
19th "	Zeh ..	10 " ..	28.	3,601	
20th "	" ..	8 a.m. ..	28.	3,655	
20th "	Paniham ..	8 p.m. ..	27.9	3,547	
21st "	" ..	8 a.m. ..	27.85	3,601	
21st "	" ..	2 p.m. ..	27.8	3,655	
21st "	Isa-Tahir Spring ..	6.15 p.m. ..	27.65	3,547	
21st "	" ..	7.30 a.m. ..	27.75	3,601	
22nd "	Kondi Well ..	7 p.m. ..	27.3	3,655	
23rd "	" ..	8 a.m. ..	27.3	3,547	
24th "	Mashkija Well ..	8 " ..	26.75	3,601	
24th "	" ..	4.30 p.m. ..	26.65	3,655	
24th "	Low Pass ..	7.30 " ..	26.35	3,547	
24th "	Toz-gi Spring ..	9 p.m. ..	26.4	3,601	
25th "	" ..	7.6 a.m. ..	26.5	3,655	
25th "	" ..	9.15 a.m. ..	26.3	3,547	
25th "	Pass No. 1 ..	3.50 p.m. ..	26.25	3,601	
25th "	" No. 2 ..	12 a.m. ..	26.35	3,655	
26th "	Siastargi ..	11 " ..	26.9	2,964	
26th "	Goran Pass, No. 1 ..	2.30 p.m. ..	26.55	3,334	
26th "	" No. 2 ..	2.45 " ..	26.55	3,334	

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APPENDIX D—continued.

Aneroid readings, &c.—continued.

Date.	Place.	Hour.	Aneroid.	Approximate height.	Remarks.
				ft.	
1st June 1897	Killah-i-nao ..	1 p.m. ..	27.75	2,087	For particulars of weather changes compare with the meteorological observations, Appendices G, H and I.
2nd "	" ..	11 a.m. ..	27.8		
2nd "	" ..	6 p.m. ..	27.7		
3rd "	" ..	5.30 p.m. ..	27.75		
4th "	Nusrat-abad ..	6.30 "	27.95	1,842	
5th "	" ..	7 a.m. ..	28.1		
5th "	" ..	7 p.m. ..	27.95		
6th "	" ..	7 a.m. ..	28.05		
6th "	" ..	7 p.m. ..	27.8		
7th "	" ..	6 a.m. ..	27.9		
7th "	" ..	5.30 p.m. ..	27.85		
8th "	" ..	7 a.m. ..	28.05		
8th "	" ..	7 p.m. ..	27.9		
9th "	" ..	7 a.m. ..	28.		
9th "	" ..	6.30 p.m. ..	27.95		
10th "	" ..	7 a.m. ..	28.05		
10th "	" ..	7 p.m. ..	28.		
11th "	" ..	7 a.m. ..	28.15		
11th "	" ..	7 p.m. ..	28.		
12th "	" ..	6 a.m. ..	28.05		
12th "	" ..	6 p.m. ..	28.05		
13th "	Kamali ..	7.30 a.m. ..	28.1	1,832	Near Haidmi.
13th "	" ..	7 p.m. ..	27.9		
14th "	" ..	5.30 a.m. ..	28.		
15th "	South bank of Hamun	7.30 p.m. ..	28.1		
15th "	" ..	6 a.m. ..	28.05	1,782	
15th "	" ..	6.30 p.m. ..	28.		
16th "	Kochyan ..	5 a.m. ..	28.		
16th "	" ..	6 p.m. ..	28.		
16th "	" ..	6 a.m. ..	28.	1,832	
17th "	" ..	6 p.m. ..	28.		
17th "	Gazbar ..	11.30 a.m. ..	27.85		
17th "	" ..	6 p.m. ..	27.8		
18th "	" ..	6 a.m. ..	28.	1,933	
18th "	" ..	6 p.m. ..	28.		
18th "	Bolai ..	7 p.m. ..	27.85		
19th "	" ..	6 a.m. ..	28.		
19th "	Jalalabad*	6 p.m. ..	28.05	1,762	*On eastern bank of Rud-i-Dashak, a western arm of Rud-i-Parian.
19th "	" ..	6 a.m. ..	28.1		
20th "	Margu ..	4 p.m. ..	28.2		
20th "	" ..	8 "	28.07		
20th "	Daulatabad ..	5.30 a.m. ..	28.	1,802	
21st "	" ..	6 p.m. ..	28.05		
21st "	Pulgi ..	5.30 a.m. ..	28.04		
22nd "	" ..	7 p.m. ..	28.		
22nd "	Saidak ..	6 a.m. ..	28.07	1,800	
23rd "	" ..	6 p.m. ..	28.		
23rd "	" ..	6 a.m. ..	28.05		
24th "	" ..	7 "	28.2		
25th "	Jalalabad ..	7.30 p.m. ..	28.05	1,762	
25th "	" ..	6 a.m. ..	28.2		
26th "	" ..	8 p.m. ..	28.05		
26th "	Iskel ..	7 a.m. ..	28.05		
27th "	" ..	7 p.m. ..	28.05	1,812	
27th "	" ..	6.30 a.m. ..	28.		
28th "	" ..	8 p.m. ..	28.		
28th "	" ..	5.30 a.m. ..	28.		
29th "	" ..	7 p.m. ..	27.95	1,882	
29th "	Killah-i-nao ..	8 a.m. ..	28.		
30th "	" ..	7 p.m. ..	27.95		
30th "	" ..	7 a.m. ..	28.		
1st July 1897	" ..	7 "	27.87	1,882	
1st "	" ..	7 "	28.05		
2nd "	" ..	7 p.m. ..	27.87		
2nd "	" ..	7 a.m. ..	28.07		
3rd "	" ..	7 p.m. ..	27.87		
3rd "	" ..	7 a.m. ..	28.05		
4th "	" ..	7 p.m. ..	27.85		
4th "	" ..	8 a.m. ..	28.03		
5th "	" ..	7 p.m. ..	27.85		
5th "	" ..	7 a.m. ..	28.		
6th "	" ..	7.30 p.m. ..	27.9		
6th "	" ..	5 a.m. ..	28.		

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'Reconnaissance through Baluchistan and Seistan, 1897' [37v] (79/120)

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APPENDIX D—continued.

Aneroid readings, &c.—continued.

Date.	Place.	Hour.	Aneroid.	Approximate height.	Remarks.
				ft.	
7th July 1897	Deh Sukhta ..	7 p.m. ..	27·95	1,832	
8th "	" ..	9.30 a.m. ..	28·05		
8th "	" ..	7.30 p.m. ..	27·95		
9th "	" ..	6.30 a.m. ..	28·05		
9th "	" ..	7 p.m. ..	27·95	1,882	
10th "	" ..	6 a.m. ..	28·05		
10th "	Kosha-Pain ..	7 " ..	27·9		
11th "	" ..	5.30 a.m. ..	28·05		
11th "	" ..	7 p.m. ..	27·9	1,882	
12th "	" ..	5.30 a.m. ..	28·		
12th "	" ..	8 p.m. ..	27·9		
13th "	" ..	7 a.m. ..	28·		
13th "	" ..	7 p.m. ..	27·95	1,882	
14th "	" ..	7 a.m. ..	28·05		
14th "	" ..	7.30 p.m. ..	27·95		
15th "	" ..	6.30 a.m. ..	28·05		
15th "	" ..	7 p.m. ..	27·95	1,882	
16th "	" ..	8 a.m. ..	28·1		
16th "	" ..	7 p.m. ..	28·		
17th "	" ..	7 a.m. ..	28·1		
17th "	" ..	7 p.m. ..	28·1	1,882	
18th "	" ..	7 a.m. ..	28·05		
18th "	" ..	8 p.m. ..	27·8		
19th "	" ..	7 a.m. ..	27·95		
19th "	" ..	7 p.m. ..	27·8	1,882	
20th "	" ..	7 a.m. ..	27·95		
20th "	" ..	7 p.m. ..	27·85		
21st "	" ..	6.30 a.m. ..	28·		
21st "	" ..	7.30 p.m. ..	27·85	1,882	
22nd "	" ..	7 a.m. ..	28·		
22nd "	" ..	8 p.m. ..	27·85		
23rd "	" ..	7.30 a.m. ..	28·	1,882	
23rd "	" ..	7 p.m. ..	27·85		
24th "	" ..	7 a.m. ..	28·		
24th "	" ..	7 p.m. ..	27·75		
25th "	" ..	7 a.m. ..	27·95	1,882	
25th "	" ..	8 p.m. ..	27·75		
26th "	" ..	6.30 a.m. ..	27·95		
26th "	Lutfulla ..	7 p.m. ..	27·75		
27th "	" ..	5.30 a.m. ..	27·9	1,882	
27th "	Bank of Hamun ..	7.30 " ..	27·8		
27th "	Koh Khwaja..	9.30 " ..	27·35		
27th "	Lutfulla ..	7 p.m. ..	27·75		
28th "	" ..	5.30 a.m. ..	27·85	1,882	
28th "	" ..	7 p.m. ..	27·6		
29th "	" ..	8 a.m. ..	27·85		
29th "	" ..	7 p.m. ..	27·6		
30th "	" ..	8 a.m. ..	27·9	1,882	
30th "	" ..	7 p.m. ..	27·7		
31st "	" ..	8 a.m. ..	28·		
31st "	" ..	7 p.m. ..	27·7		
1st Aug. 1897	" ..	7 a.m. ..	27·95	1,882	
1st "	" ..	6 p.m. ..	27·8		
2nd "	" ..	6 a.m. ..	27·95		
2nd "	Diwana ..	7 p.m. ..	27·85		
3rd "	" ..	7.30 a.m. ..	28·15	1,882	
3rd "	" ..	7 p.m. ..	27·8		
4th "	" ..	7 a.m. ..	28·1		
4th "	" ..	7 p.m. ..	27·8		
5th "	" ..	7 a.m. ..	28·	1,882	
5th "	" ..	8 p.m. ..	27·8		
6th "	" ..	7 a.m. ..	27·9		
6th "	" ..	9 p.m. ..	28·05		
7th "	" ..	7 a.m. ..	27·95	1,882	
7th "	" ..	7 p.m. ..	28·05		
8th "	" ..	6 a.m. ..	27·95		
8th "	Kosha-Pain ..	7 p.m. ..	27·85		
9th "	" ..	8.30 a.m. ..	28·	1,882	
9th "	" ..	7 p.m. ..	27·85		
10th "	" ..	6 a.m. ..	27·9		

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APPENDIX D—continued.

Aneroid readings, &c.—continued.

Date.	Place.	Hour.	Aneroid.	Approximate height.	Remarks.
				ft.	
10th Aug. 1897	Kosha-Pain ..	7 p.m. ..	27·85		
11th "	" ..	7 a.m. ..	27·9		
11th "	" ..	7 p.m. ..	27·85		
12th "	" ..	7 a.m. ..	28·05		
12th "	" ..	7 p.m. ..	27·85		
13th "	" ..	7 a.m. ..	28·1		
13th "	" ..	7 p.m. ..	27·85		
14th "	" ..	6 a.m. ..	28·		
14th "	" ..	7 p.m. ..	27·85		
15th "	" ..	7 a.m. ..	28·05		
15th "	" ..	7 p.m. ..	27·85		
16th "	" ..	8 a.m. ..	28·		
16th "	" ..	7 p.m. ..	27·85		
17th "	" ..	8 a.m. ..	28·		
17th "	" ..	7 p.m. ..	27·85		
18th "	" ..	7 a.m. ..	28·		
18th "	" ..	7 p.m. ..	27·85		
19th "	" ..	7 a.m. ..	28·05		
19th "	" ..	7 p.m. ..	27·85		
20th "	" ..	7 a.m. ..	28·05		
20th "	" ..	7 p.m. ..	27·9		
21st "	" ..	7 a.m. ..	28·1	1,882	27·95/1,882 ft.
21st "	" ..	7 p.m. ..	27·9		
22nd "	" ..	7 a.m. ..	28·05		
22nd "	" ..	7 p.m. ..	27·9		
23rd "	" ..	7 a.m. ..	28·1		
23rd "	" ..	7 p.m. ..	27·9		
24th "	" ..	8 a.m. ..	28·05		
24th "	" ..	7 p.m. ..	27·9		
25th "	" ..	7 a.m. ..	28·05		
25th "	" ..	6 p.m. ..	27·85		
26th "	" ..	7 a.m. ..	28·05		
26th "	" ..	7 p.m. ..	27·85		
27th "	" ..	7 a.m. ..	28·05		
27th "	" ..	7 p.m. ..	27·87		
28th "	" ..	7 a.m. ..	28·05		
28th "	" ..	7 p.m. ..	27·9		
29th "	" ..	7 a.m. ..	28·05		
29th "	" ..	7 p.m. ..	27·95		
30th "	" ..	7 a.m. ..	28·05		
30th "	" ..	7 p.m. ..	27·95		
31st "	" ..	7 a.m. ..	28·05		
31st "	" ..	7 p.m. ..	27·95		
1st Sept, 1897	" ..	6 a.m. ..	28·05		
1st "	Warmal ..	7 p.m. ..	28·05	1,837	
2nd "	" ..	6.30 a.m. ..	28·1		
2nd "	South-east bank of Hamun.	7 p.m. ..	28·1	1,762	Near Aspi.
3rd "	" ..	5 a.m. ..	28·05		
3rd "	East bank of Hamun	7 p.m. ..	28·1	1,762	At Dhana-i-Shelg.
4th "	" ..	7 a.m. ..	28·05		
4th "	Kundi river ..	7 p.m. ..	27·6	2,290	Violent blizzard.
5th "	" ..	6 a.m. ..	27·55		
5th "	Chaida-Band Pass ..	7.30 a.m. ..	27·	2,859	
5th "	Kaftargi Pass ..	10 a.m. ..	26·98	2,880	
5th "	Sar-i-Gudar ..	11.45 a.m. ..	26·5	3,387	
5th "	Darwazgu Spring ..	7 p.m. ..	26·25		
6th "	" ..	6.30 a.m. ..	26·4		
6th "	" ..	7 p.m. ..	26·3	3,601	26·3/3,601 ft.
6th "	" ..	6.30 a.m. ..	26·5		
7th "	" ..	7 p.m. ..	26·2		
8th "	" ..	6.30 a.m. ..	26·35		
8th "	" ..	7 p.m. ..	26·2		
8th "	Shah Beg ..	12 a.m. ..	23·8	6,423	
9th "	Darwazgu Spring ..	6.30 p.m. ..	26·35	3,601	
9th "	Pass ..	8.15 a.m. ..	25·5	4,474	
9th "	Sar Baghi ..	2.15 p.m. ..	24·1	6,069	
9th "	Darwazgu Spring ..	7 p.m. ..	26·2		
10th "	" ..	7 a.m. ..	26·4	3,601	26·3/3,601 ft.
10th "	" ..	7 p.m. ..	26·2		

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APPENDIX D—continued.

Aneroid readings, &c.—continued.

Date.	Place.	Hour.	Aneroid.	Approximate height.	Remarks.
				ft.	
11th Sept. 1897	Darwazgu Spring ..	7 a.m. ..	26·35	3,601	26·3/3,601 ft.
11th "	" ..	7 p.m. ..	26·2		
12th "	" ..	7 a.m. ..	26·4		
12th "	" ..	7 p.m. ..	26·2		
13th "	" ..	7 a.m. ..	26·4		
13th "	" ..	7 p.m. ..	26·2		
14th "	" ..	7 a.m. ..	26·4		
14th "	" ..	7 p.m. ..	26·2		
15th "	" ..	7 a.m. ..	26·35		
15th "	" ..	7 p.m. ..	26·2		
16th "	" ..	7 a.m. ..	26·3	4,898	
16th "	Pir Suran Pass ..	5 p.m. ..	25·12		
16th "	Sar-i-Baghi ..	10.30 p.m. ..	24·88	5,169	
17th "	Sar-i-Baghi Spring ..	3 a.m. ..	25·3	4,696	
17th "	Kaichi Hamun ..	12 a.m. ..	25·9	4,034	
17th "	Pass ..	2 p.m. ..	25·46	4,518	
17th "	Chah-i-Bedu ..	7 p.m. ..	25·5	4,430	25·54/4,430 ft.
18th "	" ..	7 a.m. ..	25·64		
18th "	" ..	7 p.m. ..	25·5		
19th "	Darwazgu ..	7 a.m. ..	26·2	3,601	
19th "	" ..	7 p.m. ..	26·3		
20th "	Baba Rahdar ..	7 ..	26·1	3,926	26·0/3,926 ft.
21st "	" ..	7 a.m. ..	26·1		
21st "	" ..	7 p.m. ..	26·2		
22nd "	" ..	7 a.m. ..	26·3		
22nd "	" ..	7 p.m. ..	25·8	2,703	
23rd "	" ..	7 a.m. ..	25·89		
23rd "	" ..	7 p.m. ..	25·83		
24th "	Mukh-Surkh ..	9 a.m. ..	27·1	2,116	
24th "	Ziarat ..	7 p.m. ..	27·7		
25th "	" ..	4 a.m. ..	27·75	1,863	
25th "	Raigak Well ..	7 p.m. ..	27·95		
26th "	" ..	7 a.m. ..	27·98	1,863	
26th "	Lashkaran ..	9 p.m. ..	27·97		
27th "	Warmal ..	7 a.m. ..	27·9	1,933	Vide entry under date 1st Sept. 1897.
27th "	Kosha-Pain ..	6 p.m. ..	27·8		
28th "	" ..	7 a.m. ..	27·9	1,882	27·95/1,882 ft.
28th "	" ..	6 p.m. ..	27·8		
29th "	" ..	6 a.m. ..	27·95		
29th "	" ..	6 p.m. ..	27·85		
30th "	" ..	6 a.m. ..	28·05		
30th "	" ..	6 p.m. ..	27·93		
1st Oct. 1897	" ..	6 a.m. ..	28·05		
1st "	" ..	6 p.m. ..	27·98		
2nd "	" ..	6 a.m. ..	28·05		
2nd "	" ..	6 p.m. ..	27·93		
3rd "	" ..	6 a.m. ..	28·1	1,802	
3rd "	" ..	6 p.m. ..	27·98		
4th "	" ..	6 a.m. ..	28·05		
4th "	" ..	6 p.m. ..	27·85		
5th "	" ..	6 a.m. ..	28·02		
5th "	" ..	6 p.m. ..	27·85		
6th "	" ..	6 a.m. ..	28·05		
6th "	" ..	6 p.m. ..	27·85		
7th "	" ..	6 a.m. ..	28·07		
7th "	" ..	6 p.m. ..	27·87		
8th "	" ..	6 a.m. ..	28·05	1,810	
8th "	" ..	6 p.m. ..	27·86		
9th "	" ..	6 a.m. ..	28·07	3,170	
9th "	" ..	6 p.m. ..	27·85		
10th "	" ..	6 a.m. ..	28·05	3,430	
10th "	Chah-i-Md. Raza Khan ..	6 p.m. ..	28·07		
11th "	Girdi Well ..	6 a.m. ..	28·05	26·4	
11th "	" ..	6 p.m. ..	28·03		
12th "	Loariab Spring ..	6 ..	26·72	26·5	
12th "	" ..	6 a.m. ..	26·9		
13th "	Sar-i-Baluchab ..	6 p.m. ..	26·4	27·1	
14th "	" ..	5 a.m. ..	26·5		
14th "	Juri Well ..	6 p.m. ..	27·1		

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APPENDIX D—continued.

Aneroid readings, &c.—continued.

Date.	Place.	Hour.	Aneroid.	Approximate height.	Remarks.
				ft.	
15th Oct. 1897	Juri Well	6 a.m. ..	27.2	..	
15th "	"	6 p.m. ..	27.1	..	
16th "	Girdi	6 a.m. ..	28.2	1,830	Vide entry under date 11th Oct. 1897.
16th "	"	6 p.m. ..	28.03		
17th "	Harmak Spring ..	6	27.2	2,532	Vide entry under date 6th May 1897.
17th "	"	6 a.m. ..	27.34		
18th "	Padgi Spring ..	6	26.23	..	Vide entry under date 1st May 1897.
19th "	Malik Siah Koh ..	9	24.73	5,310	At Boundary Pillar No. 186.
19th "	Robat Spring ..	6 p.m. ..	26.65		
20th "	"	6 a.m. ..	26.7	3,494	Vide entry under date 1st May 1897.
20th "	"	6 p.m. ..	26.65		
21st "	"	6 a.m. ..	26.7		
21st "	"	6 p.m. ..	26.65		
22nd "	"	6 a.m. ..	26.7		
22nd "	"	6 p.m. ..	26.6		
23rd "	"	6 a.m. ..	26.65		
23rd "	"	6 p.m. ..	26.55		
24th "	"	6 a.m. ..	26.6		
24th "	"	6 p.m. ..	26.55		
25th "	"	6 a.m. ..	26.66	3,405	
25th "	Lashkarab	6 p.m. ..	26.45		
26th "	"	6 a.m. ..	26.57		
26th "	Chah-i-Bohair, or New Kacha. ..	6 p.m. ..	26.45	3,405	
27th "	"	6 a.m. ..	26.5	3,170	Vide entry under date 28th April 1897.
27th "	Saindak Spring ..	6 p.m. ..	26.41		
28th "	"	6 a.m. ..	26.41		
28th "	"	6 p.m. ..	26.3		
29th "	"	6 a.m. ..	26.42		
29th "	Darand Koh	6 p.m. ..	26.64	..	
30th "	Pass	11 a.m. ..	26 ..	..	
30th "	Amir Chah	6 p.m. ..	26.05	..	
30th "	"	6 a.m. ..	26.07	..	
31st "	"	6 p.m. ..	26.5	..	
1st Nov. 1897	Mizzil Spring ..	6 p.m. ..	26.5	3,154	
2nd "	Chah-i-Sandan ..	6	26.65		
3rd "	"	6 a.m. ..	26.8		
3rd "	Gat-i-Barut	1.30 p.m. ..	26.57	3,313	
3rd "	Darigan	5.15 ..	26.3	3,601	
3rd "	Meroi Spring ..	7 p.m. ..	26.8	3,038	
4th "	"	6 a.m. ..	26.87		
4th "	Low Pass, 1st ..	9.50 a.m. ..	26.67	..	
4th "	" 2nd	9.50 ..	26.6	..	
4th "	Ismail	6 p.m. ..	26.95	2,911	
5th "	"	4 a.m. ..	26.96		
5th "	Datbandin	6 p.m. ..	26.9		
6th "	"	6 a.m. ..	26.97	..	
7th "	Kundrak	6	26.93	..	
7th "	Yadgar	4 p.m. ..	26.9	..	
8th "	Padak	6 a.m. ..	26.95	..	
8th "	"	4 p.m. ..	26.93	..	
9th "	Shakar-Chah ..	6	26.95	2,694	
10th "	Nushki	6.30 a.m. ..	26.3	3,709	
10th "	"	6 p.m. ..	26.4		
10th "	Rugged rocky pass, 1st. ..	7.45 p.m. ..	25.85	..	
10th "	Rugged rocky pass, 2nd. ..	9.15 ..	25.55	..	
10th "	Kishangi	12.40 ..	25.55	4,470	
11th "	Balla-Kotal	6 a.m. ..	24.2	..	
11th "	"	6 p.m. ..	24.7	..	
11th "	Adam Zai	6	24.8	..	
12th "	Barak Pass	6 a.m. ..	24.2	..	
12th "	Tilari Camp	9 p.m. ..	24.65	5,328	
13th "	"	4 a.m. ..	24.7		
13th "	Pass	12.10 a.m. ..	23.7		
13th "	Quetta	3 p.m. ..	24.3	5,511	

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APPENDIX E.

LIST of Wells and Springs to the south of the Seistan Hamun and along the range of hills on the west between Palang Koh and Malik Siah Koh.

SERIAL NUMBER CORRESPONDING WITH THOSE ON MAP NO. II.

LIST of Watering Places temporarily inhabited by Nomads and flock-owners in the vicinity of which grazing is found.

No.	Name of place.	Remarks.
221	Kandak Well	These are situated on the Shelag plain to the south of the Hamun.
222	Sari .. (old)	
223	Dashak (ruined)	
224	Asak Well	
225	Akhor-i-Raksh-i-Rustam	
226	Gumbaz-i-Khadija	Elevation, 1,863 ft.
227	Lashkaran Well	
228	Kundi Spring	Elevation, 3,601 ft.
229	Juzak	
230	Darwazgu	
231	Chehal-Dukhtaran	
232	Juz Spring	
233	Shor-Sheerin Spring	Elevation, 4,419 ft.
234	Kund-i-Gazy	
235	Jhulli Well	
236	Butak	
237	Kaftargu Well	
238	Shah Beg	Elevation, 3,926 "
239	Omar Spring	
240	Ziarat-i-Baba Rahdar	Elevation, 4,696 ft.
241	Pir Soran Pass	
242	Kaichi Well	
243	Regak Spring	
244	Sar-Baghy Spring	
245	Padagi Spring	Elevation, 3,387 ft.
246	Sari-i-Gudar Pass	
247	Kaftargu Pass	" 2,880 "
248	Chaida Band Pass	
249	Chah-i-Allah Dad	" 2,859 "
250	Turshop Spring	
251	Jori Well	Elevation, 2,500 ft.
252	Bejarabi Spring	
253	Chah-i-Balochab	
254	Juzak	
255	Sar-i-Balochab	
256	Lariab Spring	The remainder are situated in the interstices of the hills on the desert plateaux and in the valleys.
257	Padgi	
258	Hurmak	
259	Madan	
260	Bug	
261	Makki	
262	Diwana Well	
263	Padagi Spring	
264	Wavalla	
265	Padagi	
266	Tasak	

APPENDIX F.

INDEX List of all Villages in each Nawar of Seistan, 1897.

SERIAL NUMBER CORRESPONDING TO MAP NO. II.

[Further particulars of all villages in each Nawar will be incorporated in the Gazetteer of Seistan. - B.-C.]

No.	Name of village.	No.	Name of village.
<i>1st Nawar.</i>			
1	Kubak (ruined).	12	Deh Muhammad Shah Karm.
2	Khavaja Ahmad.	13	Bakhtai.
3	Allah Din.	14	Kalukhi.
4	Karim Dad.	15	Deh Jahangir.
5	Deh Mirza.	16	" Nawab.
6	" Bahadur.	17	" Muhammad Kalb-i-Ali.
7	" Sharif Khan.	18	Tilfak.
8	" Husain Khan.	19	Seh-Khadang.
9	" Ghulam Khan.	20	Deh Khanam.
10	" Sadullah.	21	" Mulla Abdullah.
11	" Gazma.		
<i>2nd Nawar.</i>			
22	Kand.	31	Deh Arbab Ali Akbar.
23	Deh Masti.	32	" Haji Ali Akbar.
24	Zahidan.	33	Gul Muhammad Beg.
25	Ali Abad.	34	Shaitan.
26	Deh Jange Khan.	35	Burj-Afghan.
27	" Nahor.	36	Deh Asghar.
28	Iskil.	37	Bolai.
29	Kasim Abad.	38	Gazbar.
30	Ziarat-i-Bibi-Dost.		
<i>3rd Nawar.</i>			
39	Malik Haideri.	51	Piran.
40	Seh Killah.	52	Kachian.
41	Deh Buzi.	53	Killah-i-Nao.
42	Siah-Sar.	54	Deh Nao.
43	Kari or Tapa-daz.	55	" Rahdar.
44	Bunjar.	56	" Ghulam Ali.
45	Deh Akbar.	57	" Hadimi.
46	" Jabbar.	58	" Mansuri.
47	" Dargi.	59	" Isar.
48	" Kool.	60	" Kamali.
49	Bala-Khana.	61	Allah-abad.
50	Taghazi.	62	Nasir-abad.
<i>4th Nawar.</i>			
63	Kalap-baz.	73	Deh Alari.
64	Kaftargi.	74	" Jalai.
65	Burj-i-Sarband.	75	Jotegh.
66	Kimak.	76	Killah Zero (ruined).
67	Wasloon.	77	Karbasak.
68	Khamak.	78	Said-Usaf.
69	Ziarat-Gab.	79	Fatah-Ullah.
70	Deh Ali-Jafar.	80	Husain-abad, Bala.
71	" Gauri.	81	Killah-i-Ghulaman.
72	" Yar Muhammad.	81a	Nusrat-abad.

APPENDIX F—continued.

Index List of all Villages, &c.—continued.

No.	Name of village.	No.	Name of village.
5th Nawar.			
82	Said Muhammad.	91	Baghak.
83	Pulki.	92	Siah-Sar.
84	Luf.	93	Kool.
85	Dashtaf.	94	Jazinak.
86	Kang.	95	Kundarak (ruined).
87	Bahram-abad.	96	Ass-Ghazi.
88	Deh Mir.	97	Deh Nao, 2nd.
89	Chung-i-Murghan.	98	Afzal-abad.
90	Ibrahim-abad.	98a	Husain-abad.

6th Nawar.			
99	Shahrstan.	134	Podina.
100	Killah-Nao or Burj-Nao.	135	Abas Khan.
101	Killah-Kohna or Burj-Kohna.	136	Deh Ali Akbar.
102	Ali-abad.	137	" Divana, 1st.
103	Deh Sokhta.	138	" Gafar Shah Baz.
104	" Khalik-dad.	139	" Muhammad Zainal.
105	Sih Kuha.	140	" Lutuf-ullah.
106	Charkhami.	141	" Muhammad Azam.
107	Miran Haji.	142	" Hussaina.
108	Deh Zulafkari.	143	" Akbar Jafri.
109	Kosha-Pain.	144	" Hussaina Rais.
110	Khodad-Beg.	145	Khiari, 1st.
111	Kosha-Bala.	146	Jai Bakhsh.
112	Shebrak.	147	Deh Hussain Muhammad.
113	Muhammad-abad.	148	" Muhammad Safar.
114	Nehgard.	149	" Gurg.
115	Chaling.	150	" Tillar.
116	Deh-Brahim Kochar.	151	Ziarat Pir Sabz.
117	" Mula Ali.	152	Shebr-Yari.
118	" Ismail Kambar.	153	Rustum Muhammad.
119	Tamr-abad.	154	Deh Allahi.
120	Akbar Abas.	155	" Amir Beg.
121	Sincholi.	156	Taghai.
122	Daudi.	157	Deh Ali Raza.
123	Jamal-abad.	158	Tuti.
124	Sidgi.	159	Divana, 2nd.
125	Dad-bashi.	160	Deh Shah Gul.
126	Khadr.	161	Akhund Ghulam.
127	Ala-Sufi.	162	Khiari, 2nd.
128	Akbar-abad.	163	Doulat-abad.
129	Hassan Abdulla.	164	Hussain-abad Pain.
130	Hussain Meshdi.	165	Lutak.
131	Zainul Qasam.	166	Pusht-i-Dasht.
132	Deh Ass, 2nd.	167	Warmal.
133	Abas Kar.		

7th Nawar.			
168	Jalal-abad (ruined).	180	Kundal.
169	Burj-i-Nasir Khan (ruined).	181	Deh Nauroz.
170	Killah Kohlak (ruined).	182	" Khani-Suri.
171	Kurki.	183	" Jani-Suri.
172	Ali Zainal.	184	" Pahalwan.
173	Deh Baboch.	185	Margo.
174	Khamak.	186	Takhta Pul.
175	Shaikh Wasai.	187	Abbas Namrudi.
176	Pulgi.	188	Mir Gul.
177	Deh Muradi.	189	Paddai.
178	Darlat-abad.	190	Katamak.
179	Deh Haji.	191	Piru.

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APPENDIX F—continued.

Index List of all Villages, &c.—continued.

No.	Name of village.	No.	Name of village.
7th Nawar—continued.			
192	Khammar.	207	Deh Shah-Jahan.
193	Deh Dost Muhammad.	208	" Dost Muhammad.
194	" Mukhtar.	209	" Husain Ali Khan.
195	Karkashah.	210	" Daul-Shah.
196	Deh Muhammad.	211	" Raza.
197	" Gazma.	212	" Akhund.
198	" Darwesh.	213	Saidak.
199	" Shaikh.	214	Deh Amir Beg.
200	Deh Husain-i-Husani.	215	" Agha Khan.
201	Milak.	216	Chardari (ruined),
202	Deh Jahangir Khan.	217	Deh Sargazi.
203	Jahan-abad or Deh Mirza.	218	Lashkaran.
204	Safar-Zai.	219	Burj-i-Muhammad Khan (ruined).
205	Deh Fakira.	220	Deh Yar Muhammad Chalingag.
206	" Amir.		

(907)

U

APPENDIX G.

BALUCHISTAN.

TABLE of Meteorological Observations taken by Major Brazier-Creagh, 1897.

OUTWARD JOURNEY.

[Readings from an ordinary mountain thermometer taken as regularly as possible consistent with daily travel.]

Place.	Date.	Temperature of the air.			Direction and character of the wind.	Sky.	Cloud.	Remarks.	Barometer.	
		Morning.	Noon.	Evening.					a.m.	p.m.
Girdi Talab	6th April 1897	6 a.m. degs. 36	3.30 p.m. degs. 70/72	7.30 p.m. degs. 58	E. ..	Clear	Cum. ..	Cool, pleasant day	24.7—7	..
Kard-gab	7th "	..	..	..	S.W. ..	"	Small cum. ..	Warm midday. Long, hot march of 43 miles.	25.3—6.15	..
Kishangi.	8th "	42	85/87	72	N.W. ..	"	Nil ..	Trying march of 22 miles.	25.5—7	..
Nushki ..	9th "	49	92/93	85	N.W. ..	"	" ..	Hot, dry wind. Very warm in sun.	26.2—7	..
Ahamadwal	10th "	69	93/95	87	"	Clouded	Cum. to strat.	Dry and cool wind towards evening.	26.45—6.30	..
Shakarchah	11th "	61	91/93	85	"	"	Large cum.	Hot, dry wind. Glare trying on eyes.	26.95—7	..
Ridgazchoh	12th "	64	86/87	80	N. ..	Clear	Nil ..	Hot and long march. <i>Idem.</i>	27.0—7	..
Badiuchah	13th "	65	92/98	92	N.W. ..	Blue	Cum. to strat.	Dry, hot wind. Excessively hot marching.	26.9—7	..
Yadgar-chah	14th "	62	92/96	90	N.E. ..	Clear	Cum. ..	Warm day; horses tucked up from heat and bad water.	26.95—7	..
Dalbendin	15th "	61	96/99	94	S.W. Strong	Cloudy	Strat. ..	Dry, cool wind sand-storm; long, hot march of 32 miles.	27.0—12	..
"	16th "	69	96/99	92	Morning—N.N.W. strong. Noon—Wind abated somewhat. Night—S.E. S.W. ..	Clear	Cir-cum ..	Wind changed at 2 o'clock to S.E. Blew strong from that quarter, accompanied by dust-storm. Fine night, pleasant marching.	27.0—7	..
Khargosh Khan	17th "	76	99/100	92	S.W. ..	Cloudy	Strat. to cum.	Sun obscured. Oppressive, hot march of 22 miles.	26.75—7	..
Shorab ..	18th "	80	97/99	81	Southerly, strong and gusty.	"	Strat. ..	1 p.m.; oppressively hot night; light showers between 3 and 6 a.m. Sun obscured all day. Heavy clouds rolling up now (3.30 p.m.) from S.W. Marched 22½ miles.	27.0—7.30	27.0—7

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Asa or Galla-eliah	19th	7 a.m.	1 p.m.	7 p.m.	N. W.	Clear	..	Strat. to nimh.	Violent thunder-storm, accom- panied by forked lightning and heavy rains, revolving from S.W. to N. from 9 p.m. to 2 a.m. Tents all blown down, and camp swamped.	27-9-7	27-9-10
Zeh	..	70	85/87	82	..	..	..	..	Cool, pleasant day. Early march of 22 miles.	27-9-8	27-9-8
Panham	..	72	92/94	91	E.N.E.	Clouded all over	..	Strat.	Sun obscured, wind shifted at 5 p.m.	27-8-6	27-8-6
Isa Tahir	..	70	90/92	87	S.W.	Clouded	..	..	Slight showers this morning.	27-75-7, 30 27-3-7	27-3-8
Kundi	..	65	88/91	85	..	Blue	..	Small cum..	Violent sand-storm in evening.	..	..
Kundi	..	62	85/87	83	N..	Clouded	..	Cum.	Cool day, glare trying; halted ..	26-65-4, 30	26-4-9
Tuzghal	..	67	87/89	84	S.W. strong	..	..	Strat. to nimh.	Sun obscured, slight rain at 3 p.m.; 37-mile march.	..	..
Amalaf	..	61	82/84	77	N. strong	..	..	..	Cool day; rain between 3 and 4 o'clock this morning; 44-mile march.	26-9-10	26-9-10
Kirfaka	..	65	93/97	84	S.E.	Clear	..	Small cum..	Cool throughout the day; halted	26-95-8	26-45-2
	..	70	94/98	85	N.W. and dry hot	Blue	..	C-cum.	Pleasant marching in the early morning, cool breeze (3 p.m.). Temperature of well in shade 63 degs. and water in Chagul 65 degs.; marched 25 miles.	26-45-8	26-45-8
Kacha	..	70	95/99	91	N..	..	..	Cir.	Warm day, marched 12 1/2 miles ..	25-9-9	25-9-9
Lashkariab	..	71	95/102	91	N..	Clear	..	Small cum..	Warm day. Marched 17 1/2 miles.	26-5-6	26-5-6
Robat	..	75	100/103	94	N. Hot and dry	Hazy	..	Cir..	Intensely hot day. Marched 35 miles.	26-4-8	26-4-8
"	..	75	101/104	94	N. and hot	Blue, hazy	..	Large cum.	Hot day ..	26-4-7	26-4-7
"	..	75	104/106	89	N.W. Fresh to- wards evening.	Hazy	..	Cum-strat.	O, Solar Halo, sand-storm in after- noon, hot muggy day.	26-45-7	26-45-7
"	..	72	89/95	86	N.N.W. Cool breeze	Clear	..	Cir-cum.	Much cooler to-day ..	26-4-8	26-4-8
"	..	64	89/92	85	N.N.W.	..	..	Very small cum.	Dry, fairly cool day ..	26-4-9	26-4-9
Hurnack	..	61	86/89	82	N. Cool	Blue	..	Cum. to strat.	Pleasant marching in the morning; at 7 p.m. brilliant parallel streaks of reddish clouds to the N.W. Marched 22 miles.	27-4-5	27-4-5

* The midday temperature are those taken as follows: the upper reading in the open, the lower in tents. The morning and evening readings were taken in the open.

APPENDIX G—continued.

BALUCHISTAN—OUTWARD JOURNEY—continued.

Place.	Date.	Temperature of the air.			Direction and character of the wind.	Sky.	Cloud.	Remarks.	Barometer.	
		Morning.	Noon.	Evening.					a.m.	p.m.
Kacholi ..	7th April 1897	7 a.m. degs. 66	2 p.m. degs. 95/98	6.30 p.m. degs. 89	N.N.E. ..	Blue ..	Cir.-cum. clouds.	Pleasant marching in the morning, cool breeze, glare of clayey and sandy desert, trying to the eyes in midday. Marched 23 miles.	..	27.05—5
Khaka ..	8th "	60	100/103	96	" ..	Hazy ..	Cir. ..	Hot, dry wind; warm day; glare on clayey ground trying to the eyes. Night starry, half-moon. Marched 18½ miles.	..	28.05—6

HOMEWARD JOURNEY.

Robat ..	23rd Oct. 1897	degs. 53	degs. 83/85	degs. 65	N.W. Light breeze	Blue and hazy	Nil ..	Warm midday, nights mild	26.6 26.55	26.55
" ..	24th "	53	83/85	65	" ..	Blue and hazy	Nil ..	Much warmer by day and night along this side of desert, parallel with Gaud-i-Zirreh.	26.66 ..	26.45
" ..	25th "	..	85/88	67	S.E. Light breeze	Blue and hazy	Nil ..	Much warmer by day and night along this side of desert, parallel with Gaud-i-Zirreh.	26.57 ..	..
Lashkar-ab ..	26th "	65	86/88	..	E.S.E. Very light	Blue and hazy	Nil ..	Much warmer by day and night along this side of desert, parallel with Gaud-i-Zirreh.	..	..
Maki ..	26th "	..	..	..	" ..	" ..	" ..	" ..	..	..
Chah-i-Bohair ..	26th "	6 a.m. ..	3 p.m. ..	8 p.m. 70	" ..	" ..	" ..	" ..	26.5 ..	26.45
" ..	27th "	70	..	..	E.S.E. Moderate, hot breeze.	Blue (turquoise), clear.	Nil ..	New moon appeared at 5.20 p.m. Hot midday, but tempered by head wind blowing over the parched sandy desert.	..	26.4
Siah Reg ..	27th "	..	89/90	65	" ..	" ..	" ..	" ..	..	..

Sandak ..	28th	65	90/92	65	E.N.E. Light breeze	Blue	..	Small cum. to the north.	Hot day in confines of hills.	26-41	26-3
" Darana Koh (907)	29th	67	88/90	68	N.N.E. Light breeze	Blue and very hazy	"	Cir.-cum. to strat.	Thick haze all round, obscuring any but near hills and sand duns, atmosphere surcharged by fine sand and electricity. Close, hot day.	26-42	26-64
Zah-i-Reg	30th	65	88/90	74	S.E. Moderate, hot	"	"	Nil ..	Sky and atmosphere clearer to-day. Sun very hot, Electrical phenomena present.	26	26-05
Amir Chah	31st	63	90/92	70	W.S.W. Moderate, hot.	"	"	"	"	26-07	..
Suttang Reg	1st Nov. 1897	58	..	..	..	..	..	..	Very raw and chilling afternoon, moon sank at 11 o'clock, p.m.; morning very cold as we bivouac on sandy deserts.	..	..
Mazzil ..	1st	..	88/90	65	N.N.W. Moderate and cool.	Blue and very hazy	..	Nil ..	Not so hot to-day. Stiff, northerly breeze all day. Very cold night.	26-5	26-5
Jhuli ..	2nd	45	78/80	62	N. Strong and cool	Blue (sapphire), clear	..	Nil ..	Pleasant marching to-day, much cooler, nights on deserts very cold.	..	..
Chah-i-Sandan	3rd	48	80/82	..	N.N.W. Moderate	Blue (sapphire), clear	..	Nil ..	Somewhat hotter to-day as we travel south and leave hills.	26-8	..
Merai ..	3rd	..	..	65	..	..	..	..	..	26-8	..
Gui-i-Hamun	4th	47	85/87	..	S.S.W. Light and fresh.	Blue (sapphire), clear, but hazy.	..	Nil ..	Fine moonlight and warmer night. Warm and sun hot mid-day.	26-87	..
Chah-i-Ismail	4th	47	..	63	..	..	..	..	..	26-95	..
"	5th	..	85/87	..	S.S.W. Light and fresh.	Blue (sapphire), clear	..	Nil ..	Pleasant moonlight night; but very cold bivouacing.	26-96	..
Shalgaz ..	5th	..	..	..	..	..	..	..	"	..	..
Dalbandin	5th	47	..	63	..	..	..	..	..	26-9	..
"	6th	..	87/88	64	N.N.W. Light and cool.	Blue (turquoise), and hazy.	..	..	Warm day time, and sun powerful.	26-37	..
Kundrak ..	7th	44	85/87	64	N.E. Moderate and cool.	Blue (turquoise) and hazy.	..	Nil ..	Cooler to-day; refreshing breeze from hills, which are close on the right.	26-43	26-9
Yadgar ..	7th	..	..	..	..	..	..	..	..	..	..
Sand desert	8th	43	85/87	..	N.W. Light breeze.	Blue (turquoise) and hazy.	..	Nil ..	Nights and early morning very cold; marching now by night, availing of full moon.	26-95	..
Padag ..	8th	..	..	..	..	..	..	..	..	..	..

APPENDIX G—continued.
BALUCHISTAN—HOMEWARD JOURNEY—continued.

Place.	Date.	Temperature of the air.			Direction and character of the wind.	Sky.	Cloud.	Remarks.	Barometer.
		Morning.	Noon.	Evening.					
Rdgaz ..	8th Nov. 1897	6 a.m. degs. ..	3 p.m. degs. ..	8 p.m. degs. 62	.. ..	.. ..	.. ..	Not at all so cold last night. Full moon.	26.93
Pagdan ..	9th "	.. 45	.. ..	.. ..	.. ..	.. ..	.. ..	Hot and glory on bare clay-baked plain.	..
Shakar Chah ..	9th "	.. ..	85/89	.. ..	S.W. Very light breeze.	Blue (turquoise) and hazy.	Nil ..	Beautiful moonlight night, but crispy.	..
Joor Kian ..	9th "	.. ..	.. ..	48	.. ..	.. ..	.. ..	Cool day, cold nights ..	26.95
Nushki ..	10th "	42	83/85	.. 45	N.N.E. Strong ..	Blue and clear ..	.. ..	Bitterly cold night and early morning (2.45 a.m.) till sun-rise	26.3
Kishinji ..	10th "	.. ..	.. ..	.. 45	.. ..	.. ..	.. ..	At 11.15 p.m. bitterly cold night.	..
Balla-Katal ..	11th "	34	.. ..	.. 45	N.W. Strong ..	Blue and clear ..	.. ..	Cool, pleasant day, and air invigorating; nights intensely cold.	24.2
Gul-Gunj..	11th "	.. ..	81/84	.. ..	.. ..	.. ..	.. ..	Impossible to sleep with cold feet and creeps all over as we bivouac nightly.	..
Gul-Gunj..	12th "	37	.. ..	.. ..	N.N.W. Moderate.	Blue and clear ..	.. ..	Cool, pleasant day, and air invigorating; nights intensely cold.	24.2
Sheikh-Wasal ..	12th "	.. ..	80/82	.. ..	.. ..	.. ..	.. ..	Impossible to sleep with cold feet and creeps all over as we bivouac nightly.	..
Tilari ..	12th "	.. ..	.. ..	42	.. ..	.. ..	.. ..	.. ..	24.65
" ..	13th "	4 a.m. 28	.. ..	.. ..	.. ..	Blue and clear ..	Nil ..	.. ..	24.7
" ..	13th "	.. ..	12 o.c. 80/82	.. ..	.. ..	.. ..	.. ..	.. ..	..
" ..	13th "	.. ..	3 o.c. 72/74	.. ..	.. ..	.. ..	.. ..	.. ..	..
Quetta ..	13th "	.. ..	.. ..	39	N.W. Mild ..	Blue and clear ..	Nil ..	Very pleasant and agreeable weather by day, mornings and nights very cold.	24.3

APPENDIX H.

SEISTAN.

TABLE of Meteorological Observations taken by Major Brazier-Creagh, 1897.

[Readings from an ordinary mountain thermometer taken as regularly as possible consistent with daily travel.]

Place.	Date.	Temperature of the air.			Direction and character of the wind.	Sky.	Cloud.	Remarks.	Barometer.	
		Morning.	Noon.	Evening.					a.m.	p.m.
Hussainabad	9th May 1897	6 a.m. degs. 67	3.30 p.m. degs. 104/104	7.30 p.m. degs. 97	N. ..	Hazy ..	Small cum. ..	Very hot day, glare trying on barren clay plain. Marched 33 miles.	..	28-7.30
Daulatabad	10th "	75	100/101	97	N. ..	Cloudless and hazy all day.	Nil ..	Warm day, breeze cooler than yesterday.	27.9-12	..
"	11th "	77	100/101	95	N. Cool breeze	Blue ..	Small cum. ..	Not so hot to-day ..	28.1-7	28-7
"	12th "	78	96/99	88	N. Fresh breeze	Clear ..	Large cum. ..	Cool day. Fine, clear night, moon.	28.1-8	28-7
"	13th "	77	94/95	90	N. ..	Blue ..	Small cum. ..	Strong wind blew from 2 a.m. last night; dust prevailed during the day; morning clear; Koh-i-Palung quite visible to the west.	28.1-6	28-7
Nasratabad	14th "	77	98/100	94	N. Strong fresh	Clear ..	" ..	Warm day. Fine moonlight night, could clearly read the Pioneer at 12 o'clock a.m. Marched 22 miles.	..	27.95-7
"	15th "	77	99/100	96	N. Mild ..	Clouded..	Large cum. strat.	Atmosphere stuffy. Occasional sunshine only.	28.05-7.30	27.95-7
"	16th "	81	101/102	87	N. Fairly cool	" ..	Cum. to strat. ..	Towards the afternoon wind falls, then becomes close. Fine bright night, 2 a.m., high wind northerly.	28-7	..
"	17th "	81	98/100	85	N.W. Fresh, cool	" ..	" ..	Pleasant day. Fine bright night, 2 a.m., high wind northerly.	..	..
"	18th "	78	94/97	81	N.N.W. ...	Hazy ..	Cir-cum. ..	No unbearable heat; glare very trying.	..	..
"	19th "	81	100/102	87	" ..	" ..	" ..	Between 4 p.m. and 8 p.m. wind falls, atmosphere then becomes close.	..	..

APPENDIX H—continued.
Table of Meteorological Observations, &c.—continued.

Place.	Date.	Temperature of the air.			Ground radiation.	Direction and character of the wind.	Sky.	Cloud.	Remarks.	Barometer.	
		Morning.	Noon.	Evening.						a.m.	p.m.
Nasratbad	20th May 1897	7 a.m. degs. 78	2 p.m. degs. 99/101	7 p.m. degs. 92	degs. ..	N.N.W. ..	Hazy ..	Cum. ..	Strong breeze blew all day from 2 a.m.; cool in tent.	..	..
"	21st "	78	97/100	85	..	" ..	" ..	Cir.-cum. ..	" ..	..	..
"	22nd "	77	95/98	90	..	" ..	Clouded ..	Cum. to strat. ..	No unbearable heat, fairly cool in tent.	..	27.05—8
"	23rd "	78	97/99	90	..	" ..	Hazy ..	Cum. ..	Dry hot wind ..	..	..
"	24th "	80	105/105	93	..	" ..	Clouded and hazy ..	Strat. ..	Hot day ..	..	..
"	25th "	80	101/103	90	..	" ..	Clear ..	Cir.-cum. ..	Warm. Weather sultry ..	..	..
"	26th "	86	103/106	89	..	N.W. Very light ..	Overcast, hazy ..	Strat. ..	Very hot; afternoon sultry ..	28.05—7	..
Qasimabad	27th "	75	104/105	91	..	N.N.E. ..	Blue ..	Cir.-cum. ..	Hot day, refreshing breeze, although temperature higher than Nasratbad, still the heat was not felt towards evening.	27.95—7	27.75—6
"	28th "	72	106/110	96	124	" ..	" ..	Cir.-strat. ..	Weather distressing. At night air somewhat damp.	..	27.75—6
Deh Jahangir	29th "	85	108/106	91	122	N.E. ..	Clear ..	Small cum. ..	Wind changed at 5 p.m. to strong N.W. accompanied with dust; evening sky overcast, low clouds, weather sultry.	..	..
West bank of Helmand river.	30th "	80	101/104	98	124	N.N.W. ..	" ..	Cum. ..	Strong N.W. wind from 9 p.m., accompanied by slight rain and lightning to N.N.E. Tents all carried away.	..	27.7—4
"	31st "	77	93/95	84	..	N.N.W. Refreshing breeze	Hazy ..	Cir.-cum. ..	Pleasant day. Night dampish, air charged with moisture from the river and inundated ground. Sandstorm during night.	27.9—5.30	..
Killah-i-nao	1st June 1897	81	95/96	84	103	N. Dry, cool, refreshing breeze	" ..	Nil ..	Pleasant day ..	27.8—5	27.75—1
"	2nd "	77	94/95	82	103	N.W. ..	" ..	" ..	Breeze fresh and accompanied by sand. Moon seen this evening (Molurum, 1st month of 1315 H.).	27.8—11	27.7—1.30

Nasrabad (907)	3rd	72	96/97 105/108	82	110	N.W. Mild breeze	"	"	"	"	"	27-75—5.30 27-95—6.30
	4th	77		95	116	N. Light hot breeze.	"	"	"	"	"	
"	5th	79	104/105	97	116	N.N.W. Strong	"	"	"	"	28-1—7	27-95—7
"	6th	82	107/110	99	120	N.N.E. "	Blue	"	"	"	28-05—7	27-85—7
"	7th	85	106/108	95	126	N. Strong	Clear	"	"	"	27-9—6	27-85—7
"	8th	79	107/108	91	132	N.N.E. Mild	Morning clear, evening hazy.	"	"	"	28-05—7	29-9—7
"	9th	78	2 p.m. 108/111	94	132	N.W. Very mild	Hazy	"	"	"	28-05	27-95
"	10th	82	108/110	94	132	N.W. Fresh	"	"	"	"	28-05	28-
"	11th	83	107/108	96	124	N. Strong	"	"	"	"	28-15	28-
"	12th	84	100/102	90	111	N.N.W. "	Clear	"	"	"	28-05	28-05
Deh Kamali South bank of Hamun, Hadeem village.	13th	78	99/100	89	107	N.W. Strong	"	"	"	"	28-1	27-9
"	14th	75	91/92	83	104	N. Light	Hazy	"	"	"	28-	28-1
Kachyan	15th	77	92/93	83	109	N. "	Blue (sapphire)	"	"	"	28-05	28-
"	16th	80	102/103	90	116	N. "	"	"	"	"	28-	28-
Deh Guzbar	17th	68	103/104	92	131	N.N.W. "	Clear	"	"	"	27-85	27-8
Boiai	18th	78	100/101	90	114	N. Gale strong	Hazy all round	"	"	"	28-	27-85

Country east of Jalalabad between the two arms of the Helmand river.

APPENDIX H—continued.

Table of Meteorological Observations, &c.—continued.

Place.	Date.	Temperature of the air.			Direction and character of the wind.	Sky.	Cloud.	Remarks.	Barometer.	
		Morning.	Noon.	Evening.						
Jalalabad.	19th June 1897	5 a.m. degs. 77	2 p.m. degs. 96/98	7.30 p.m. degs. 84	N.W. Strong	Clear	Nil	Cool breeze. Agreeable weather but for flies on east bank of Rud-i-Parmu.	28-	28-05
"	20th "	74	90/93	82	"	"	"	Cool breeze. Temperature at 4 p.m. 88 degs. at Margo in Geadons. Bar. 28- at 4 p.m.	Jalalabad. 28-1	Dalatabad. 28-07
"	21st "	74	94/95	86	"	"	"	Cool breeze. Temperature at 4 p.m. 92 degs. at Khamak in roofless mud hut.	Dalatabad. 28-	Pulgi. 28-05
"	22nd "	73	93/94	84	"	"	"	Cool breeze. Temperature at 2 p.m. 86 degs. at Sargazi in large open garden.	Pulgi. 28-04	Siadak. 28-
"	23rd "	72	91/92	81	"	"	"	Cool breeze. Temperature at 6 a.m. 67 degs. Cool breeze. Temperature at 4 p.m. 84 degs.	"	"
"	24th "	71	91/93	81	"	Clear, hazy.	horizon	Cool breeze. Temperature at 9 p.m. 76 degs. Cold night. Very strong north wind.	Siadak. 28-07	Siadak. 28-
"	25th "	70	93/94	83	"	Clear	"	Cool breeze off river, night dampish and chilly; flies worrying.	28-05	28-05
"	26th "	70	93/95	83	"	"	"	"	28-2	28-05
"	26th "	70	98/99	88	N. Good and hot breeze.	(Turquoise) blue	Nil	Warmer, midday, and much dryer here, 4 miles off river.	28-2	28-05
"	27th "	65	99/101	88	N. "	Clear	"	Cool, refreshing breeze in the morning and continued during the day. Weather agreeable.	28-05	28-5
"	28th "	61	100/102	86	N. Dry, good breeze.	"	"	"	28-	28-

Kilab-i-nao	24th	67	105/106	86	122	N.N.W.	Very hot breeze.	Hazy	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
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APPENDIX H—continued.

Table of Meteorological Observations, &c.—continued.

Place.	Date.	Temperature of the air.			Direction and character of the wind.	Sky.	Cloud.	Remarks.	Barometer.
		Morning.	Noon.	Evening.					
Deh-Sokhta	8th July 1897	6 a.m. degs. 83	2 p.m. degs. 99/100	7.30 p.m. degs. 91	N. Strong	Hazy all over	Nil	Landscape obscured with dust, sun only occasionally seen, surroundings disagreeable. Fine moonlight and starry night, sky clear.	27.95
"	9th "	78	99/100	91	"	Hazy	"	Three-fourth moon. Fine moonlight night. Strong wind from early morning blew up to 2 p.m.	27.95
Kosha-Pain	10th "	82	102/103	92	N. Violent dust gales morning.	Hazy	Nil	Fine, starry, moonlight night. Wind and dust much less to-day, but breeze strong.	27.9
"	11th "	6 a.m. 80	3 p.m. 101/102	8 p.m. 90	N. Strong, dry and hot.	"	"	Cool, light breeze from the morning. Fine, moonlight night.	27.9
"	12th "	77	102/105	88	N. Strong	"	"	Cool breeze in morning, but mid-day weather much more agreeable here. Less sand around.	27.9
"	13th "	80	103/105	89	N.N.W. Strong all day.	Hazy and dusty.	"	Fine, moonlight night, cloudless sky; large conspicuous star visible low near horizon on east; strong breeze rose at 3.30 a.m.	27.95
"	14th "	80	100/103	86	N.N.W. Moderate, fresh morning.	"	Cum.-strat. Small cir. to S.W., 6 a.m.	Glorious moonlight night, cloudy in morning, cleared midday. Sky blue, but hazy on horizon; hot and glary.	27.95
"	15th "	78	100/103	87	N. Moderate, fresh morning.	Cloudless, blue (turquoise)	Nil	"	27.95
"	16th "	76	103/106	89	N. Moderate	Blue and clear	Cir.-cum.	Moon rose 9 p.m.; fine, clear night; warm and close day.	28
Sikhua	17th "	73	107/110	98	N. Light	Clouded all round and hazy to west.	Cum.-strat. to minb.	Still, close, moonlight night; looks as if rain had fallen over Palangkoh to S.W. Cool, fresh morning, cleared at midday.	28.1

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Kosha-Pain	18th	82	112/113	91	N. Very mild ..	Hazy ..	..	Cir-cum. Strat. to west.	Intensely close night and hot day. Flat calm in afternoon, and very low clouds all round. Cum. to strat. Hot and muggy. Fairly cool night. Breeze freshened at 10 a.m. Cool day as compared with yesterday.	28.05	27.8
"	19th	85	104/107	89	N. Moderate, cool.	Blue (sapphire) ..	..	Cir-cum. to west	Cool night, strong gusty wind from morning, increased during day with dust storm; moon waning.	27.95	27.8
"	20th	82	100/103	92	N.N.W. Strong and epileptic.	"	..	A few fine cir. ..	Cool night, strong gusty wind from morning, increased during day with dust storm; moon waning.	27.95	27.85
"	21st	78	100/102	86	N.W. Strong and dry.	Hazy ..	..	Nil	Cool, starry night; wind gusty and strong increasing towards early morning, and by day dusty; but cooler.	28.	27.85
"	22nd	77	104/106	90	N.W. Strong and hot.	Blue, hazy horizon	..	"	Cool night, gusty breeze, strong all day and hot.	28.	27.85
"	23rd	77	105/109	90	"	Blue (sapphire), clear.	..	"	Warm day; cool, mild night; water in Chagal registered 69 degs.	28.	27.85
"	24th	76	106/109	92	N.W. Strong and hot breeze.	"	..	"	Close night, hot day ..	28.	27.75
"	25th	79	112/114	93	N.W. Light, hot breeze.	"	..	"	Still, close night; very hot day ..	27.95	27.75
Lutfulla (by bank of Hamun, N.W.)	26th	80	113/116	95	N.N.W. Very light breeze.	"	..	Cir-cum. in morning; cum. (large) midday.	Still close night; cloudy morning; intensely hot day.	..	27.75
"	27th	79	112/115	95	N. Strong, dry and hot.	"	..	Nil	Close night. Intensely hot ..	27.9	27.75
"	28th	78	115/118	95	"	Blue and hazy ..	..	"	Fairly cool night. Intensely hot daytime. Water in Chagal 74 degs.	27.85	27.6
"	29th	90	111/114	98	"	Hazy ..	..	"	Warm night. Hot breeze rose at dawn, and continued strong all day.	27.85	27.6
"	30th	85	104/106	87	"	"	..	"	Strong, hot, northerly breeze blew all night with considerable force. High wind all day, cooler to-day.	27.9	27.7
"	31st	80	97/100	86	N. Cool, fresh breeze.	Blue (turquoise) ..	..	"	Cool night, continuous stiff breeze throughout night, cool day.	28.	27.7
"	1st Aug. 1897	78	97/101	85	"	Hazy ..	..	"	Mild, cool night and cool pleasant day.	27.95	27.8
Divana	2nd	80	102/105	84	N.N.W. Stiff breeze.	"	..	Small cir. in morning.	Night, cool, somewhat hotter to-day (further from water).	..	27.85
"	3rd	78	102/103	84	N. Strong, cool breeze.	Blue (sapphire) ..	..	Nil	Mild, still night, agreeable day. New moon.	28.15	27.8

APPENDIX II—continued.

Table of Meteorological Observations, &c.—continued.

Place.	Date.	Temperature of the air.			Direction and character of the wind.	Sky.	Cloud.	Remarks.	Barometer.
		Morning.	Noon.	Evening.					
Diwana ..	4th Aug. 1897	6 a.m. degs. 75	8 p.m. degs. 104/106	7 p.m. degs. 87	N.W. Stiff hot breeze.	Blue, slight haze over horizon.	Nil	Refreshing night, midday hotter than yesterday. Temperature of water in Chaghal 72 degs.	28.1
	5th "	76	104/107	86	N.W. "	Blue (turquoise)	"	Strong breeze sprang up at dawn and freshened throughout day. Epileptic in force and character, dusty day.	28.
	6th "	80	105/108	87	N.N.W. "	"	"	Violent, hot wind all day, everything covered in dust, with difficulty tents stand the force of wind.	27.9
Kosha-Pain ..	7th "	77	112/113	89	N. Strong and hot.	Blue (turquoise), hazy all round.	"	Cool, pleasant night, wind rose at 10 a.m., continued throughout day, and falling towards the evening.	27.95
	8th "	75	108/111	87	N.N.W. Light.	Blue, but hazy.	"	Cool night, morning chilly, hot day.	27.95
	9th "	75	112/114	92	N. Strong hot	"	"	Fine, moonlight and cool night, midday and evening very hot.	28.
" ..	10th "	82	102/108	89	N. Squally and hot.	Hazy all round.	"	Warm night, hot breeze, cool day, but everything enveloped in dust.	27.9
	11th "	80	101/103	85	N. and violent.	"	"	Strong gales, with dust all night, continued throughout the day, but less violently.	27.9
	12th "	74	98/100	82	N. Strong	"	"	Cool, more agreeable day and night.	28.05
" ..	13th "	68	97/99	80	"	"	"	Fine, full moonlight night, cool day.	28.1
	14th "	68	98/102	83	N. Cool breeze	Blue (turquoise).	"	Beautiful moonlight night, cool day.	28.

APPENDIX H—continued.

Table of Meteorological Observations, &c.—continued.

Place.	Date.	Temperature of the air.			Direction and character of the wind.	Sky.	Cloud.	Remarks.	Barometer.
		Morning.	Noon.	Evening.					
Warnal .. Aspi Chah ..	2nd Sept, 1897 2nd "	6 a.m. degs. 60 ..	3 a.m. degs. 99/100	5 p.m. degs. 78 ..	N. Strong ..	Blue, hazy over horizon.	Nil ..	Strong wind and much dust in early morning at Warnal. Hot midday in sun, morning and afternoon pleasant.	28.1 .. 28.1 ..
" Dahan-i-Sheleg ..	3rd 3rd "	60 ..	99/100	80 ..	N. Strong ..	Blue, hazy over horizon.	Nil ..	The strong breeze over Hamun keeps it fairly cool.	28.1 .. 28.05 ..
" Langa-i-Baba- Rahdar. "	4th 4th "	62 ..	99/100	80 ..	.. ..	.. ..	.. ..	.. ..	28.05 .. 27.6 ..
"	5th "	62 ..	..	..	.. ..	.. ..	.. ..	Violent blizzard and saline dust storm all day in our face; miserable marching in the teeth of it; sun set at 6.45 p.m.	.. ..
" Darawazgu ..	5th 6th "	.. ..	90/93 89/90	72 72	N. Blizzard .. N. Gusty ..	Hazy all over .. Blue and hazy ..	Nil .. "	Strong, cool wind all day; it gets cooler as we ascend.	26.25 .. 26.3 ..
"	7th "	65 ..	95/96	78	N. Light breeze	Blue (sapphire), clear.	"	Warm to-day, morning and evening very pleasant.	26.21 ..
"	8th "	65 ..	95/96	78	Variable ..	Blue, clear ..	"	Midday warm, morning and evening cool, close night; 5.40 a.m. heavy clouds from S.W. rolled up, beautifully tinged in mauve and pink.	26.2 ..
"	9th "	65 ..	94/95	78	S.S.E. Morning, N. midday.	Blue, cloudy ..	Cir-cum. and cir-strat.	Warm day and cloudy ..	26.35 ..
"	10th "	66 ..	97/100	78	N., with occasional southern gusts up valley.	Blue and hazy ..	Nil ..	Mild night, full moon, warm day-time. Temperature of spring at 6 a.m., 60 degs.	26.2 ..

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26-2	26-35	Cooler night, chilly in morning, cool day.	26-3	25-8	25-83	27-7	27-95	27-97	27-8	27-8	27-85
26-2	26-4	Glorious moonlight, clear and starry sky, cool day.	26-4	25-89	27-1	27-7	27-95	27-97	27-8	27-8	27-85
26-2	26-4	Glorious moonlight, clear and starry sky. Very hot in sun, air stagnant in valley to-day.	26-4	25-89	27-1	27-7	27-95	27-97	27-8	27-8	27-85
26-2	26-4	Cooler to-day, air fresher	26-4	25-89	27-1	27-7	27-95	27-97	27-8	27-8	27-85
26-2	26-35	Warm atmosphere up in these hills, highly electrical; friction of rugs, tent, or stroking my cat's back emits sparks.	26-35	25-89	27-1	27-7	27-95	27-97	27-8	27-8	27-85
26-2	26-3	Moon rose at 10.50 p.m., much hotter in this side of the hills.	26-3	25-89	27-1	27-7	27-95	27-97	27-8	27-8	27-85
26-2	26-3	Mild, clear night, hot midday	26-3	25-89	27-1	27-7	27-95	27-97	27-8	27-8	27-85
26-2	26-3	Night chilly, hot day	26-3	25-89	27-1	27-7	27-95	27-97	27-8	27-8	27-85
26-2	26-3	Strong wind over Hamun reduced the temperature.	26-3	25-89	27-1	27-7	27-95	27-97	27-8	27-8	27-85
26-2	26-3	Warm on glary salt plain, wind rose at 9 a.m. and fell towards afternoon.	26-3	25-89	27-1	27-7	27-95	27-97	27-8	27-8	27-85
26-2	26-3	Warmer on bare clayey plain	26-3	25-89	27-1	27-7	27-95	27-97	27-8	27-8	27-85
26-2	26-3	Morning star rose at 3.35 a.m., preceding a moon by 7 minutes. Sun rose at 6.10 a.m.; dry, glary plain, no dust.	26-3	25-89	27-1	27-7	27-95	27-97	27-8	27-8	27-85
26-2	26-3	Nights getting much colder, days more agreeable. Sun losing much of its power.	26-3	25-89	27-1	27-7	27-95	27-97	27-8	27-8	27-85
26-2	26-3	Nights getting much colder, days more agreeable, sun losing much of its power.	26-3	25-89	27-1	27-7	27-95	27-97	27-8	27-8	27-85
26-2	26-3	Unusually hot to-day	26-3	25-89	27-1	27-7	27-95	27-97	27-8	27-8	27-85
26-2	26-3	New moon appeared, night not so cold, less hot to-day.	26-3	25-89	27-1	27-7	27-95	27-97	27-8	27-8	27-85
26-2	26-3	Cloudy night, stiff breeze all night and during the day, which considerably reduced the temperature.	26-3	25-89	27-1	27-7	27-95	27-97	27-8	27-8	27-85

APPENDIX H—continued.

Table of Meteorological Observations, &c.—continued.

Place.	Date.	Temperature of the air.			Direction and character of the wind.	Sky.	Cloud.	Remarks.	Barometer.
		Morning.	Noon.	Evening.					
Kosha-Pain	30th Sept. 1897	6 a.m. degs. 62	3 p.m. degs. 88/91	8 p.m. degs. 67	N. Light breeze	Blue and hazy	Cum. (large) in morning.	Mild night; cloudy morning	28-05
"	1st Oct. 1897	60	95/98	63	N.N.W. Light	"	Nil	Mild, stary night; warm mid-day.	28-05
"	2nd "	58	98/101	68	N. Very light	"	"	Fine night, unusually hot to-day.	28-05
"	3rd "	63	90/94	65	N. Strong and gusty.	Blue. Very hazy	"	Close night up to 8 a.m., when strong wind arose and continued throughout the day with much dust.	28-01
"	4th "	63	88/90	63	N. Moderate and gusty.	"	"	Boisterous night, wind fell towards evening.	28-05
"	5th "	64	82/85	63	"	Blue (turquoise), clear.	"	Mild, moonlight night, cool day	28-02
"	6th "	55	80/82	57	N. Strong and gusty.	Hazy	"	Cold night, strong wind from 9 o'clock a.m., and usual dust.	28-05
"	7th "	53	82/85	55	N. Moderate, gusty.	Blue and hazy	"	Cold night. Agreeable day	28-07
"	8th "	45	82/85	60	"	Blue (turquoise), clear.	"	Fine moonlight night. Very cold towards morning.	28-05
"	9th "	46	80/83	56	N.W. by N., light	"	"	Fine moonlight night, not so cold	28-07
"	10th "	42	80/83	56	"	"	"	Agreeable weather. Moon rose at 5-27 p.m., sun set 5-5 p.m.	28-05
"	11th "	42	85/90	60	"	"	"	Calm, clear night; somewhat warm to-day.	28-05
"	12th "	45	85/90	63	N.W. Moderate	"	Small cum. to N.W.	Mild night; somewhat warm to-day.	26-9
"	13th "	55	83/85	60	N.N.W. Strong	Blue. Slight hazy	Nil	Mild night and much less cold in the morning and evening; cool day.	26-5
"	14th "	55	83/86	60	"	"	"	"	26-5
"	"	"	"	"	"	"	"	"	27-1

'Reconnaissance through Baluchistan and Seistan, 1897' [50r] (104/120)

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..	15th	..	53	80/83	58	..	N.W. Strong and gusty.	Blue and hazy ..	..	..	Strong wind all day, accompanied by slight dust.	27-1
"	..	"	..	80/81	58	..	N.W. Strong ..	Blue ..	..	..	Mild night. Strong wind all day accompanied by slight dust.	28-03
"	16th	"	50	80/81	60	..	N.W. Violent ..	"	..	..	Cool, agreeable weather ..	27-2
"	17th	"	45	76/78	58	..	N.N.W. Violent ..	Hazy all over ..	..	..	Violent gusts of wind accompanied by dust all day.	27-03
"	18th	"	45	..	..	..	and gusty.	"	..	..	Very unpleasant there; high winds and dust.	26-05
"	19th	"	43	78/80	60	..	"	"	..	..	Warm midday on glary plain ..	26-65
Chah-i-Md. Raza ..	20th	"	40	..	..	..	N.W. Light breeze.	Blue (turquoise) ..	..	..	"	26-65
Machi ..	20th	"	..	80/82	53	..	N. Light, fresh breeze.	"	..	..	"	26-65
Girdi ..	21st	"	43	80/82	54	..	"	"	..	..	"	..
"	22nd	"	43	85/87	..	..	N. Mild breeze occasionally.	Blue (turquoise) ..	..	..	Cold night, warm midday crossing sandy salt plain.	..
Dash-i-i-Shar ..	22nd	"	..	..	..	..	"	"	..	..	Night much less cold, camp in bosom of hills.	26-6
Humak ..	22nd	"	..	..	58	..	"	"	..	..	"	..
"	23rd	"	52	..	..	..	"	"	..	..	Hot day, marching in confines of hills.	..
Ziarat-i-Malik Siah	23rd	"	..	82/84	..	..	Variable in wind-ing nadas.	Blue and hazy ..	..	..	"	95

(907)

2 B

APPENDIX H—continued.

METEOROLOGICAL Observations, for part of month of July, on the desert between Robat and Seistan, recorded by Assistant Apothecary Abas Ali.

Place.	Date	Temperature of the air.			Ground radiation.	Direction and character of the wind.	Sky.	Cloud.	Remarks.
		Morning.	Noon.	Evening.					
Chah Muhammad	12th July 1897	6 a.m. degs. 70	2 p.m. degs. 100/102	7.30 p.m. degs. 93	114	N. Strong, dry, and hot.	Blue and lazy	Nil	Fine moonlight night. Hot and dry wind. Night warm.
Reza Khan.	12th	..	..	..	..	..	..	..	..
Macli	12th	..	..	..	..	..	..	..	..
Girdi	12th	..	..	..	..	..	..	..	..
"	13th	77	105/106	95	118	N. Strong, dry, and hot.	Hazy	Cir.-cum.	Full moon, fine moonlight night, sky clear. Night warm.
Hurmak	14th	87	102/105	93	120	N. Dry and hot	Hazy (clouds in the early morning)	Cir. strat. Nil after-noon.	"
Robat	15th	79	98/99	91	116	N. Fresh, cool	Blue and lazy	Small cum. in the morning.	"
"	16th	80	100/102	92	116	N. Dry	..	..	"
Shelag river	17th	86	106/108	96	124	N. Dry and hot	Clouded	Cum. to strat.	"
Girdi	18th	84	112/113	96	133	N. Dry and very hot	..	..	Slight showers of rain early morning, hot day, sun obscured, occasional sun-shine.
"	19th	88	110/112	98	133	"	"	"	Sun very hot, muggy and close all day.
Chah Muhammad	20th	80	..	..	..	"	"	"	Night stuffy. Night stuffy.
Reza Khan.	20th	..	106/108	..	126	N. Dry and very hot	Hazy	Cum. (small)	Very hot day. Night stuffy.
Desert	20th	..	..	..	..	..	..	..	Not so warm to-day.

APPENDIX I.

NEH AND BRIJAND DISTRICTS, 1897.

METEOROLOGICAL Observations for months of July and August, recorded by Assistant Apothecary Abas Ali.

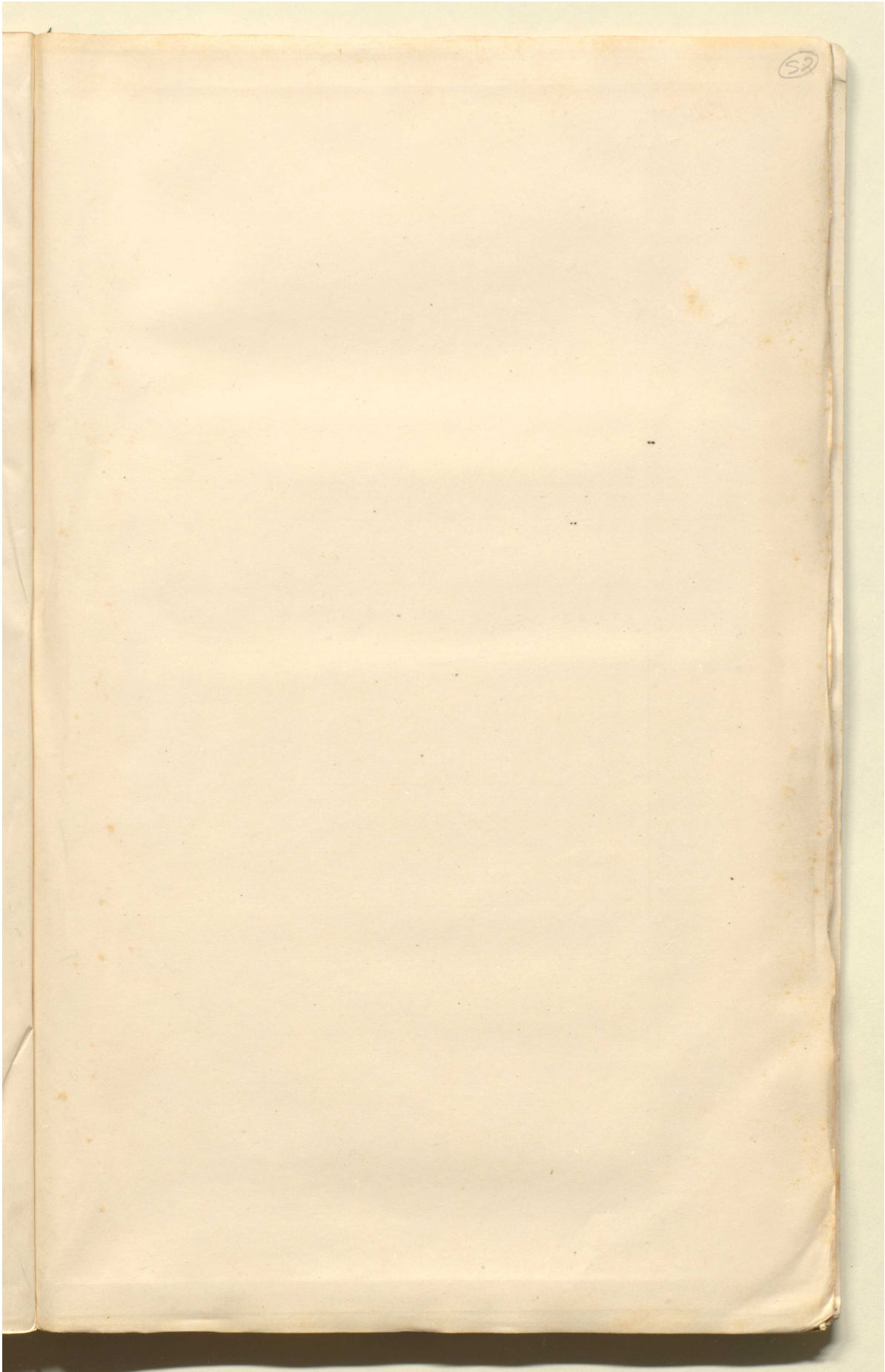
Place.	Date.	Temperature of the air.			Ground radiation.	Direction and character of the wind.	Sky.	Cloud.	Remarks.
		Morning.	Noon.	Evening.					
		6 a.m. degs.	2 p.m. degs.	7.30 p.m. degs.					
Afzalabad	21st July, 1897	..	..	92	..	N. ..	..	Nil ..	Dry, hot breeze.
Bering "	22nd "	83	101/103	90	115	N. Dry ..	..	Nil ..	Cool breeze in the evening.
Houz "	23rd "	81	110/111	98	133	N. Dry and hot ..	..	Nil ..	Wind dry and hot.
Zainabad	24th "	85	103/105	97	117	N. Dry and hot ..	..	Nil ..	Dry and hot breeze.
Anjira "	25th "	82	..	..	117	N. ..	..	Nil ..	Warm day, dry.
Garab "	26th "	..	104/106	97	..	N. ..	..	Nil ..	Hot breeze.
Nasfandan	27th "	84	107/108	98	122	N. Dry and hot ..	..	Cum. to strat.	Warm day, dry and hot breeze.
Shoos "	28th "	60	..	..	112	N. Dry and hot ..	..	Small cum. ..	Much cooler in the morning.
Chah-Daraz	29th "	..	101/103	96	..	N. and dry ..	..	Nil ..	Wind dry and hot.
Shah-Abad	30th "	80	100/103	94	112	N. ..	..	Nil ..	" "
Dashat-Gard	31st "	80	100/104	96	113	N. Fresh and cool ..	..	Small cum. ..	Wind cool in the morning and evening.
Gauri "	1st Aug, 1897	72	89/92	82	106	N. ..	..	Large cum. ..	Fresh, cool breeze, moon seen this evening.
Mood "	2nd "	70	88/90	82	102	N. ..	..	Small cum. ..	Fresh, cool breeze.
Birjand	3rd "	65	90/96	80	102	N. Dry and hot ..	..	Nil ..	Fresh, cool breeze in the morning and evening, sky clear, 1/4 moon.
"	4th "	76	92/100	86	110	N. Dry ..	..	" "	Warmer than yesterday.
"	5th "	70	92/97	84	105	N. ..	..	" "	Dry and hot breeze.
"	6th "	73	95/99	84	108	" "	..	" "	" "
"	7th "	70	96/100	86	110	" "	..	" "	" "

APPENDIX I—continued.

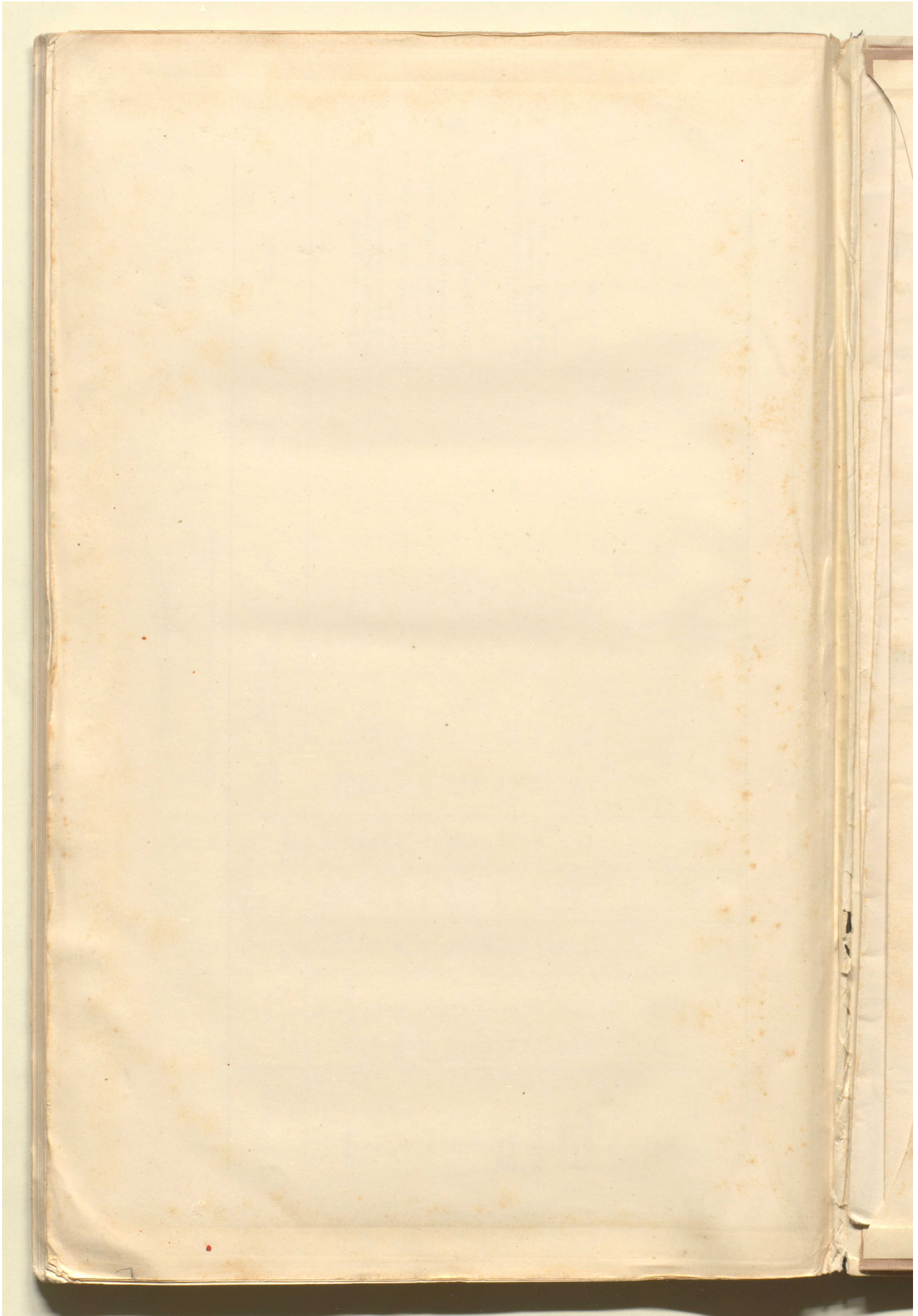
Meteorological Observations, &c.—continued.

Place.	Date.	Temperature of the air.			Ground radiation.	Direction and character of the wind.	Sky.	Cloud.	Remarks.
		Morning.	Noon.	Evening.					
Birjand ..	8th Aug. 1897	6 a.m. degs. 72	2 p.m. degs. 96/100	7.30 p.m. degs. 86	deg. 112	N.E. ..	..	..	Cool breeze in the morning.
" ..	"	71	95/99	85	100	N. Dry ..	..	..	Fine moonlight night, sky clear.
" ..	9th "	70	93/97	84	105	N.E. Strong ..	..	..	Strong breeze, sandstorm, fine moonlight night.
" ..	10th "	68	93/97	80	107	N.E. ..	..	..	Fine moonlight night, sky clear and starry, cool night.
" ..	11th "	65	89/95	80	107	" ..	..	..	Full moon, fine moonlight night, sky clear, and cool day.
" ..	12th "	62	90/97	80	108	" ..	..	..	"
" ..	13th "	65	90/95	80	108	" ..	..	..	"
" ..	14th "	65	92/96	78	108	" ..	..	..	Same as yesterday.
" ..	15th "	64	..	..	..	" ..	..	..	"
" ..	16th "	..	88/95	..	108	" ..	..	..	"
Mood Gorcet ..	16th "	..	..	74	..	N.E. ..	..	..	Cool breeze in the morning and evening.
" ..	16th "	47	..	..	..	N.E. ..	..	..	Much cooler in the morning.
Shah-abad ..	17th "	..	94/99	80	110	" ..	..	..	Wind dry and hot; last night much cooler.
Chah-Daraz ..	18th "	59	..	..	..	" ..	..	..	"
Shoos ..	18th "	..	91/93	..	105	" ..	..	..	"
Nesandan ..	18th "	..	..	80	..	N.E. ..	..	..	Fairly cool day.

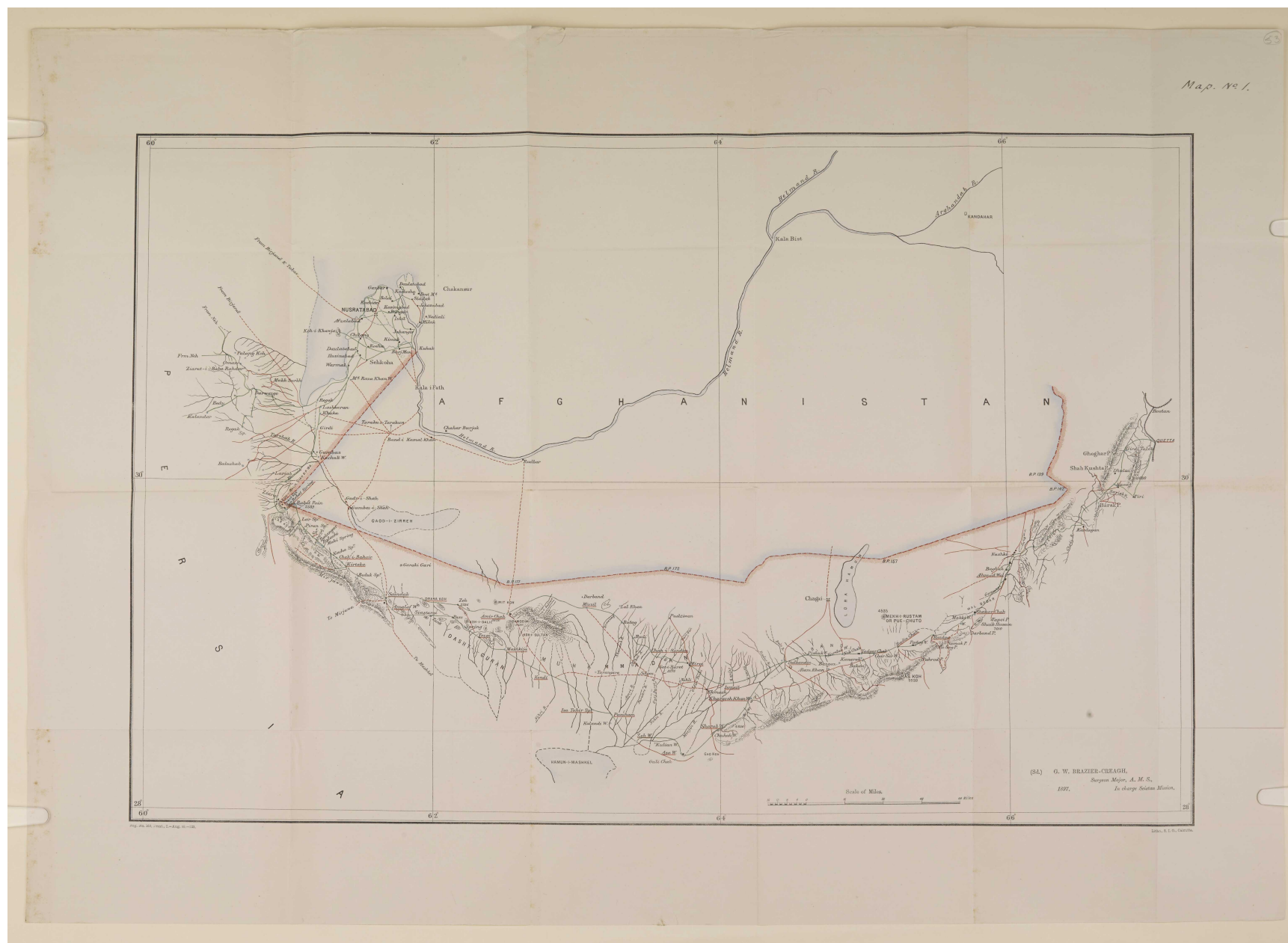
'Reconnaissance through Baluchistan and Seistan, 1897' [52r] (108/120)



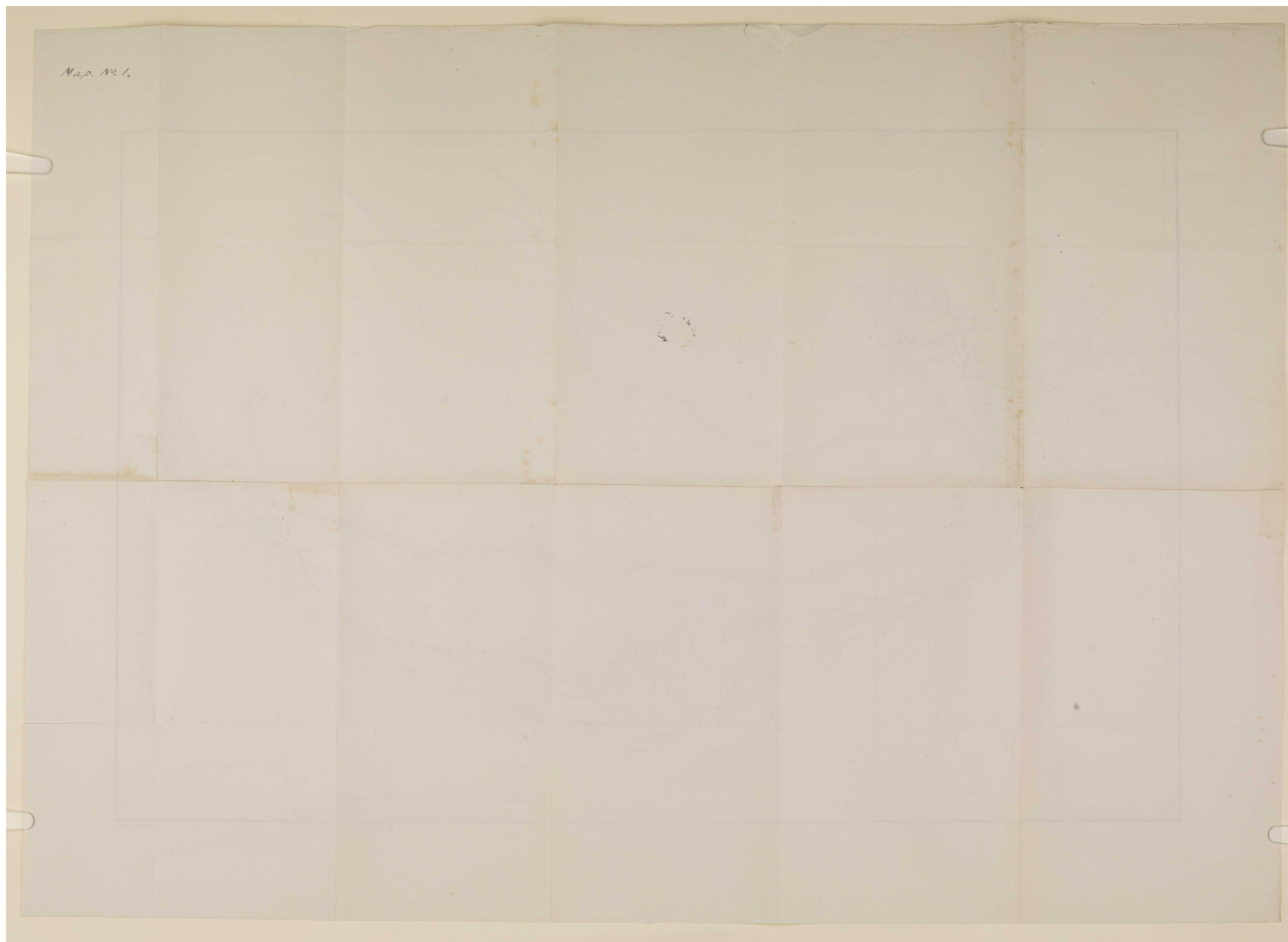
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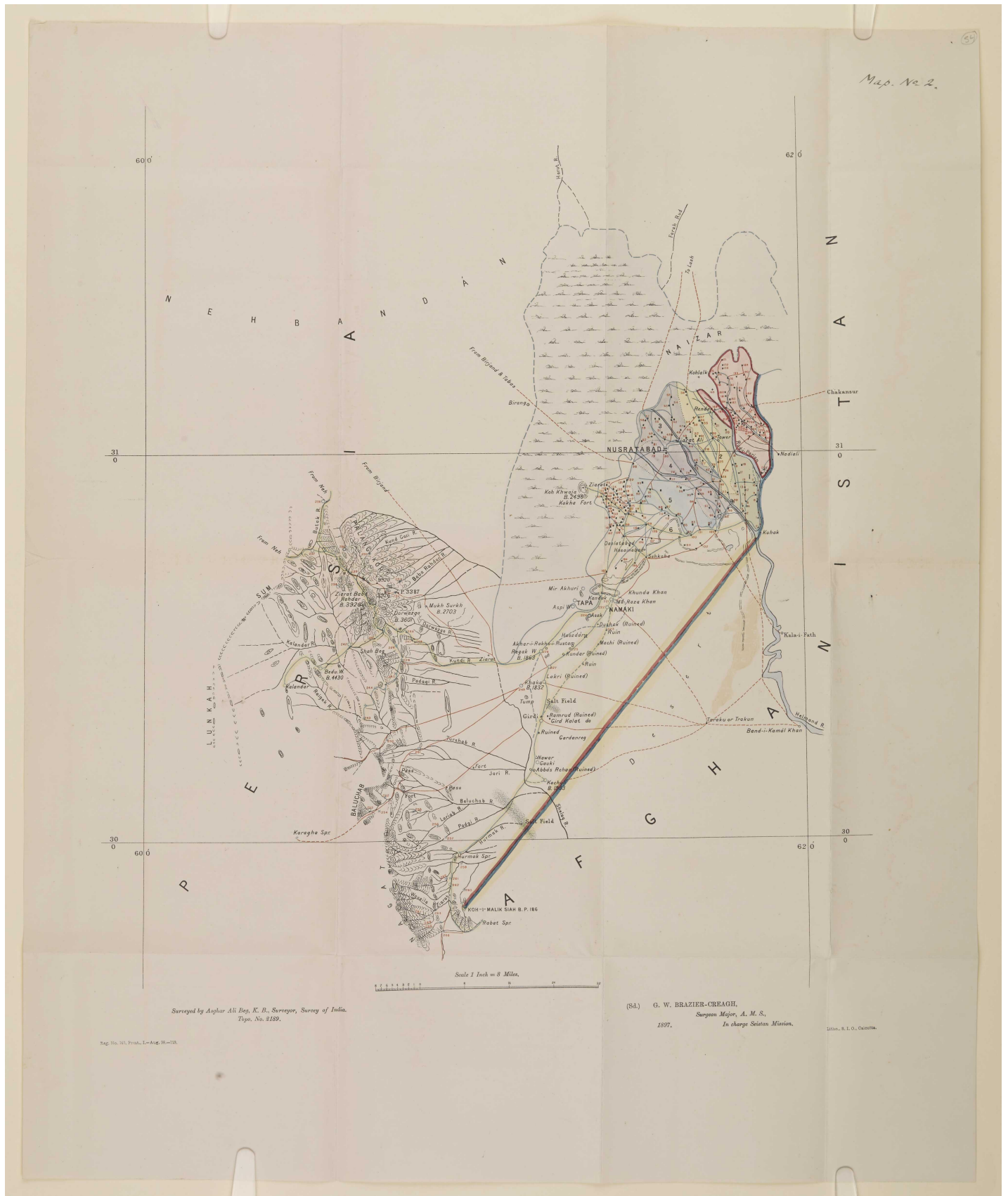
'Reconnaissance through Baluchistan and Seistan, 1897' [53r] (110/120)



'Reconnaissance through Baluchistan and Seistan, 1897' [53v] (111/120)



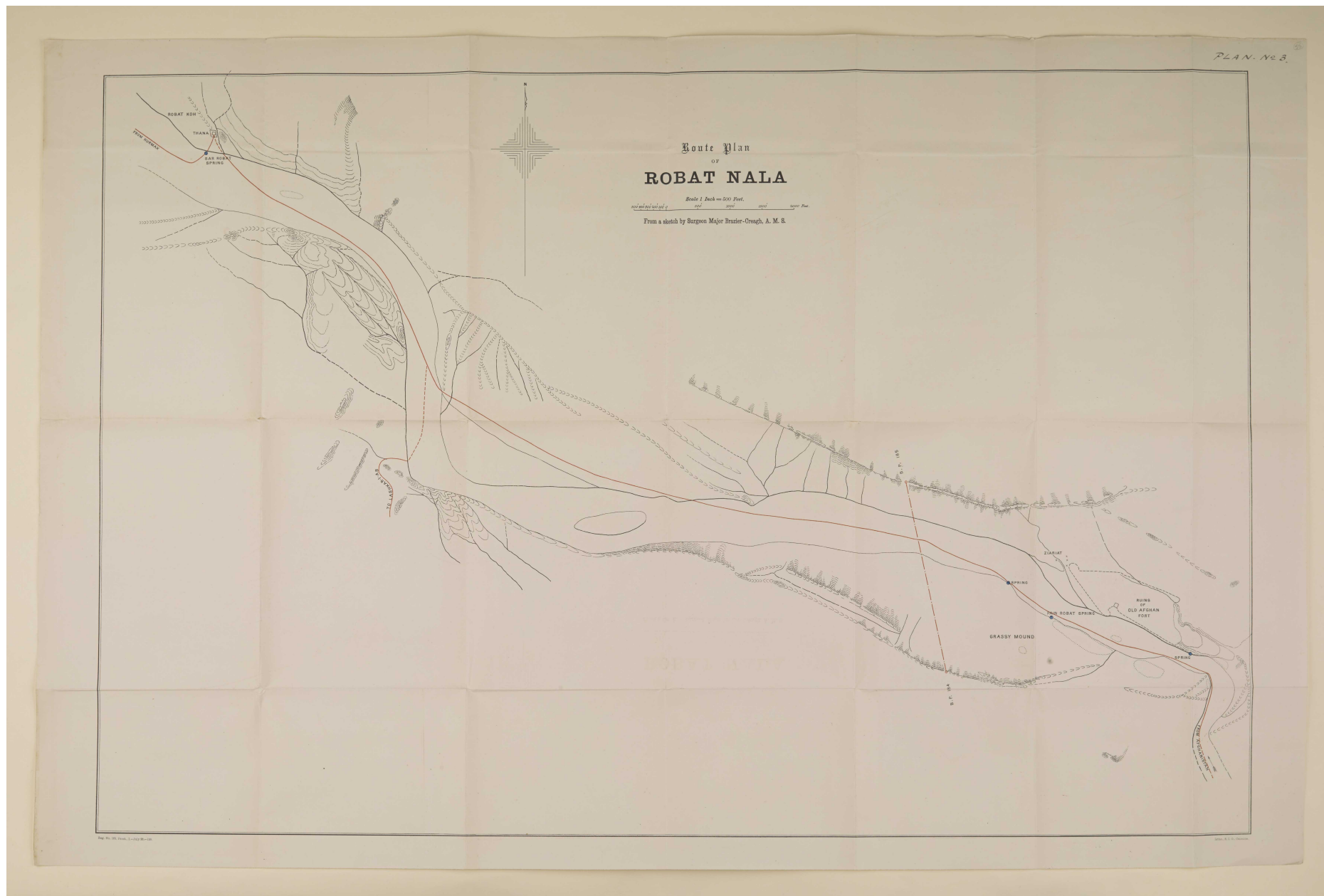
'Reconnaissance through Baluchistan and Seistan, 1897' [54r] (112/120)



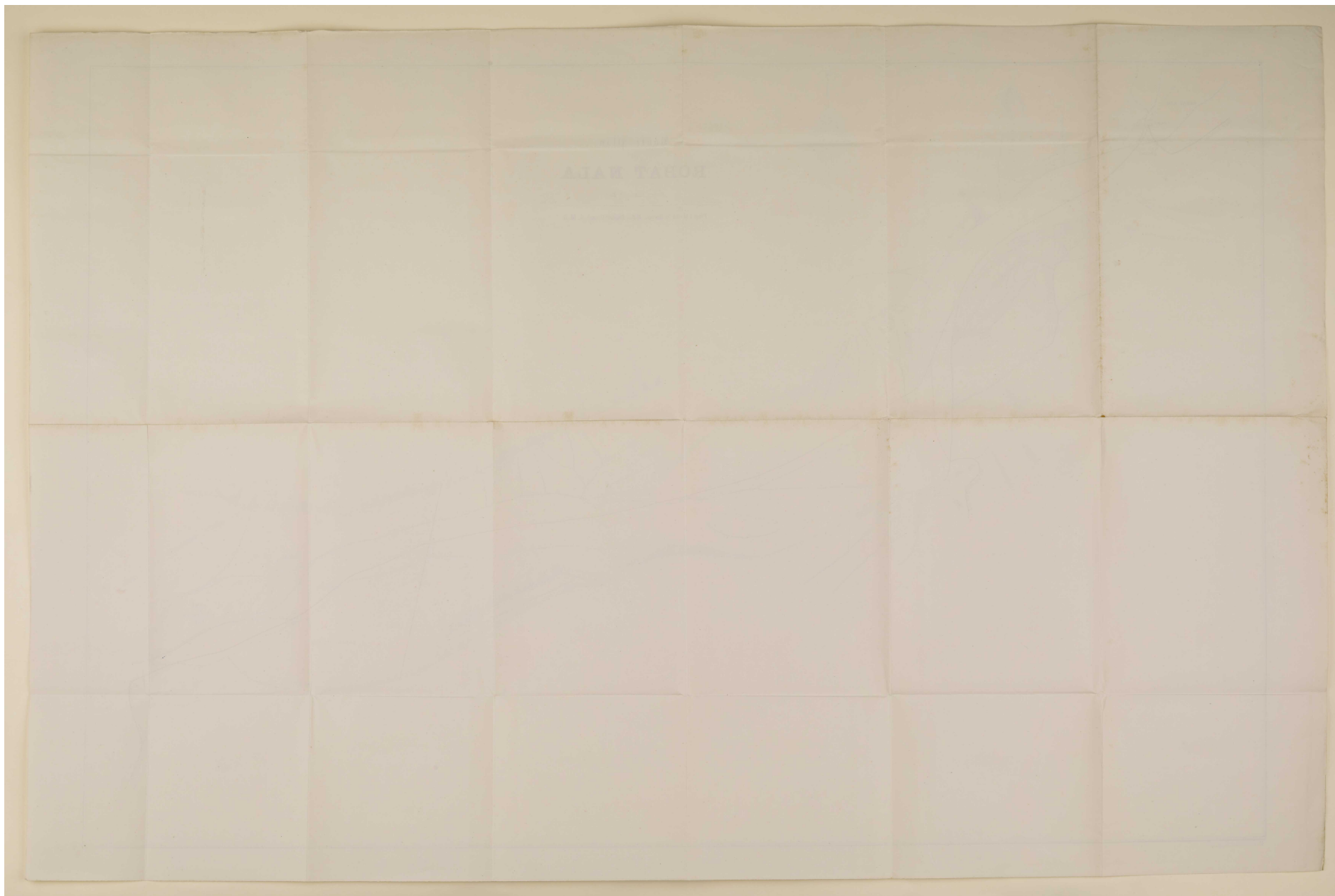
'Reconnaissance through Baluchistan and Seistan, 1897' [54v] (113/120)



'Reconnaissance through Baluchistan and Seistan, 1897' [55r] (114/120)



'Reconnaissance through Baluchistan and Seistan, 1897' [55v] (115/120)

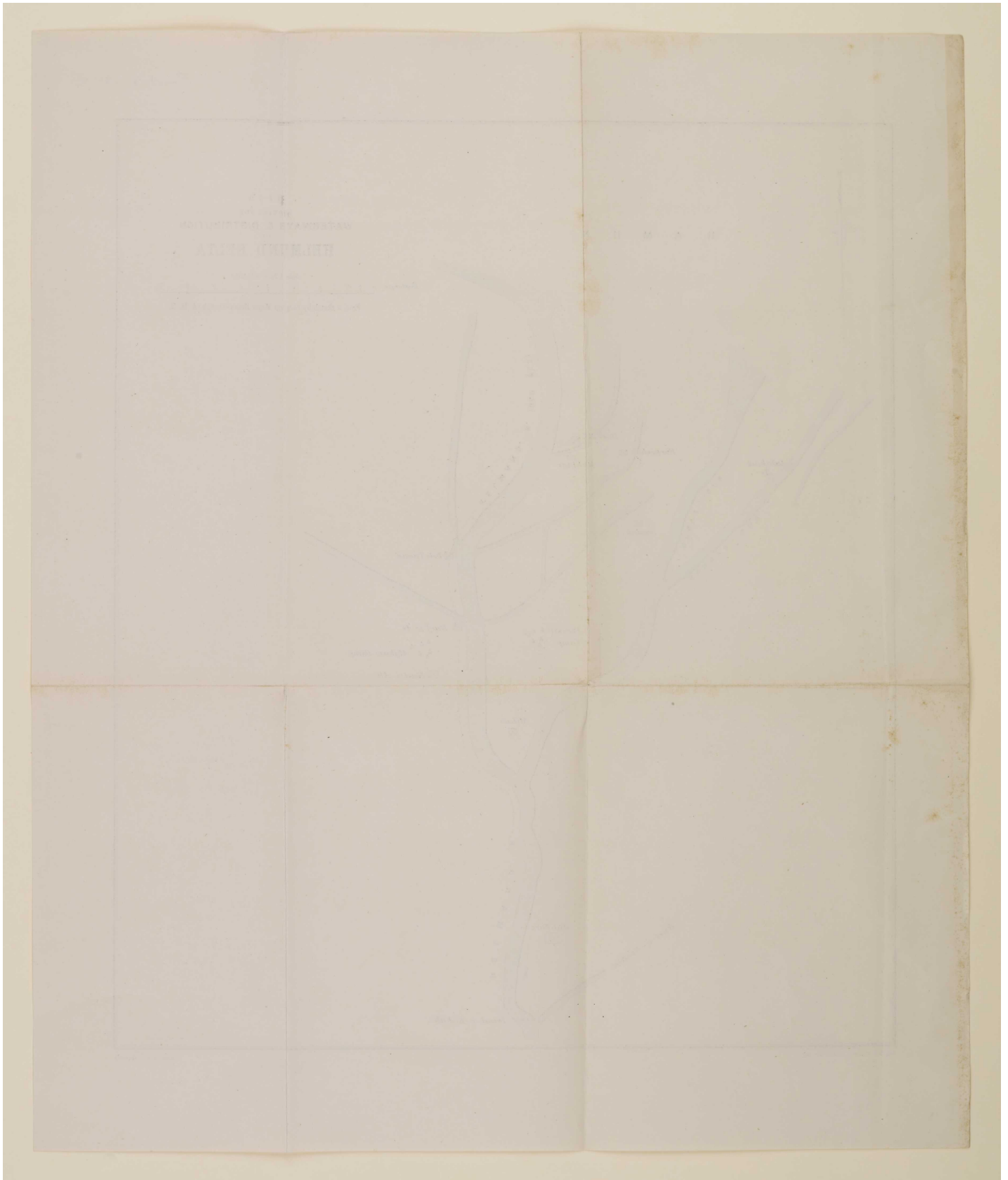


'Reconnaissance through Baluchistan and Seistan, 1897' [56r] (116/120)



Reg. No. 103. Print. 1-7 July 90.-103.

'Reconnaissance through Baluchistan and Seistan, 1897' [56v] (117/120)



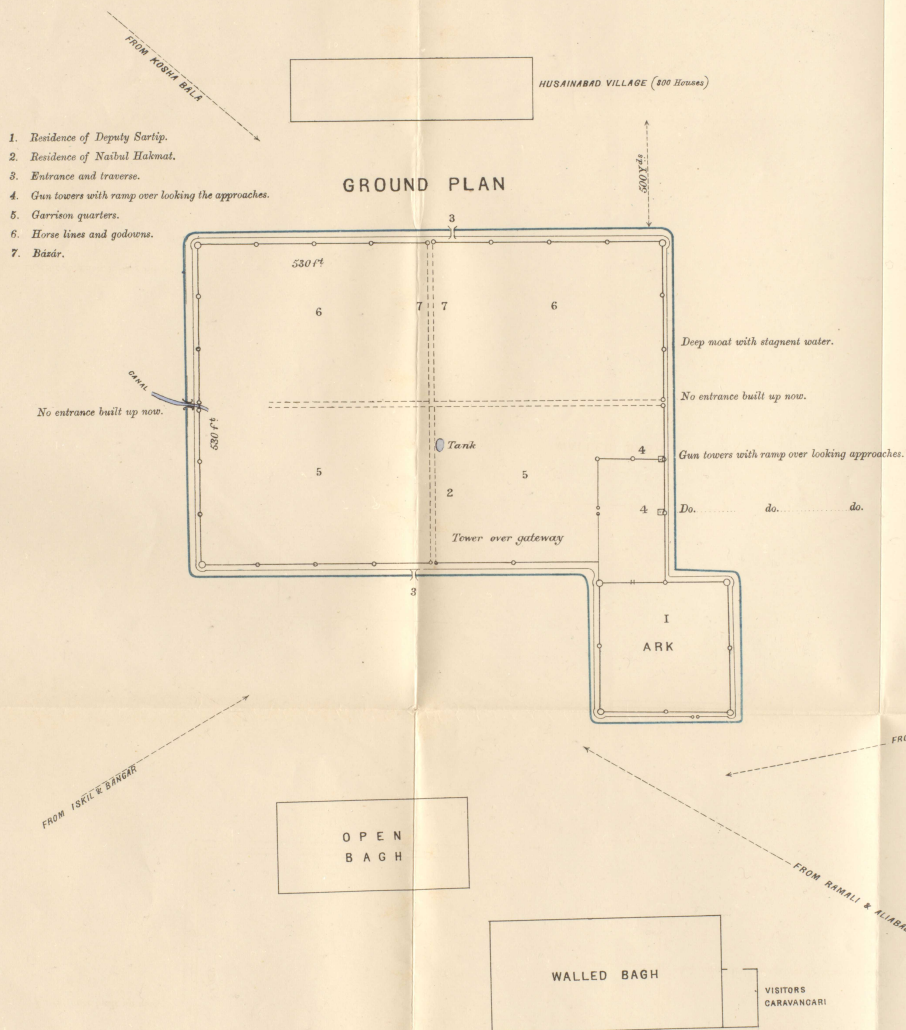
'Reconnaissance through Baluchistan and Seistan, 1897' [57r] (118/120)

PLAN. No 57

NASRATABAD FORT

Scale 1 Inch = 200 Feet.

From sketch by Surgeon Major G. W. Brazier-Creagh, A. M. S.



Reg. No. 163, Print. I.-July 98.-198.

Latlon., S. I. O., Calcutta.

'Reconnaissance through Baluchistan and Seistan, 1897' [57v] (119/120)

