

Three Indian Maps.

1. A Mughal map of North-West India and Kabul.

In a short paper which appeared in *Imago Mundi* VII, I noted that the Survey of India held a very few old maps that were of Indian origin, one of which came from the Mughal court at Delhi. On the editor's repeated request I have made a closer examination of two maps that do not appear to have been described before.

One of these (Survey of India, Dehra Dun, MRIO, 97 (10, 11)), is a copy of a Mughal map probably made round about 1780 from an original that at the time of copying had already been seriously damaged. The map covers North-West India, Afghanistan, and Sind, from Delhi to Kabul, from Kashmir to the sea. Names and notes are in Persian script with English rendering neatly added. This copy is drawn in two sections, each $82\frac{1}{2} \times 75$ centimetres, with an overlap of about $12\frac{1}{2}$ cm. It stretches from the Jumna River on the east to include the Helmund on the west; from Kashmir on the north to the mouths of the Indus on the south. It shows the main rivers without any attempt at exactness, but in general correct relation to the important cities. It shows the great cities and towns of the Punjab, Rajputana, Sind, and Afghanistan, greatly distorted in geographical position. It records the stages and distances between these towns, the crossings of the great rivers, and the main passes through the border hills; and it gives notes on the nature of the country that would be of the greatest value to a military commander. A truly wonderful geographical map.

This copy is drawn on sheets of good English drawing paper, one of which bears the watermark J. WHATMAN, without date, and the manufacturers tell me that the watermark date was first introduced in 1792. Stocks of good drawing paper that reached India in those days were consumed within a very short time; there was always a shortage, so that this copy was almost certainly made before 1795.

Both sheets contain considerable blank areas which are marked "Destroyed in the original", and these are of such a size and shape as to suggest damage by insects or climate rather than accident. This would point to the original having been at least fifty years old when copied, and to its having perished long—long—ago. It is not likely that Emperor Shah Alam would have been interested in a map of the north-west; he was more interested in Bengal and Bihar, and this map shows nothing east of the Jumna. The map gives details of the two main routes into Kashmir, via Punch and Mirpur. These were first measured in the days of Akbar the Great, at the time of his conquest and occupation of Kashmir, 1590 to 1605. But later emperors, Shahjehan (1627-58) and Aurangzeb (1658-1707), were particularly interested in Kashmir and its famous gardens, and, moreover, we find Delhi here named the "Fort of Shahjehanabad". The general style of the map is uniform throughout, which points to it having been fair drawn from a compilation that had already been mapped. The probable date of the original might therefore be placed as somewhere between 1650 and 1730. Historical research might give evidence as to the dates of particular marches along the more distant routes that are particularly well defined, for example

those running through western Sind and Baluchistan.

In my earlier note I wrote of maps that had been collected from the Court of Delhi after 1785 by the British surveyors Rind and Kirkpatrick⁽¹⁾. I quote Rennell's description of a "Persian ms. map of the Punjab", suggesting that it might have been this Mughal map that I am now describing. Rennell writes in his *Memoir* published in 1793: "I have derived considerable assistance from the Persian ms. map of the Punjab. . . . It was drawn by a native, and preserved in the archives of the government in Hindoostan. The names were obligingly translated from the Persian by the late Major Davy. . . . The tract includes the whole soubah (province) of Lahore and a great part of Multan proper. It not only conveys a distinct general idea of the courses and names of the five rivers, but with the aid of Capt. Kirkpatrick's mss. sets us right as to the identity of the rivers crossed by Alexander. . . . By the help of the Persian and other ms. maps, . . . I have been enabled to give the road from Wизierabad . . . through the Retchna Doabah."

Now Rennell left India in 1777, and Major Davy died at sea on his voyage to England in 1784, so it is probable that Rennell's "Persian ms. map of the Punjab" was transliterated by Davy before 1777 in Calcutta, where he was Persian Secretary to Warren Hastings⁽²⁾. But our map does not even show Wazirabad, and has a large gap where the Lahore Jhelum road crosses the centre of the Retchna Doab. Our Mughal map cannot therefore be Rennell's map. Had Rennell seen our Mughal map, he would surely have referred to its valuable information about the routes to Kashmir, to Sind, Baluchistan and Afghanistan. The provinces of Lahore and Multan to which he refers did not extend beyond the Indus.

Comparison may further be made with Rennell's "Map of the Countries situated between Delhi and Kandahar", 1792⁽³⁾. There is no resemblance whatever between this and our map. Though Rennell might have had what he considered better material to work from—for example he shews the important town of Bannu at the mouth of the Tochi—he would, if he had seen it, surely have adopted some of the many place-names shewn in our Mughal map. In no part of Rennell's map is it possible to indicate any detail that he might have taken from our map.

Rennell was working in London from 1778 onwards and we have no evidence that our map ever left India; the office label is of no help. So far as is known the map has been among our survey records since the latter years of the 18th century, but we cannot tell whether it was ever put to useful service. It might be possible to identify it in the periodical lists that were sent by the Surveyor General in Calcutta to the Court of Directors in London from about 1790 onwards.

The map is very well drawn, with bold clear symbols, and both the Persian and English lettering are clean and perfectly legible even when reduced to half size, as here reproduced. The hills are bold and expressive, being

(1) PHILLIMORE, Historical Records of the Survey of India, I, 42 and 233.

(2) PHILLIMORE, I, 332-3.

(3) PHILLIMORE, I, pl. 8.

drawn in elevation as viewed from the city they encircle or the road they border. Attention is called to those round Ajmer, and round the head of the road to the modern Quetta, where the great mountain range which we know as *Khwaja Amran* is shown as blocking all passage to the south from Kandahar. The hills on both sides of the roads into Kashmir, and of the passes leading to Kandahar, Ghazni and Kabul give an excellent idea as to how these roads are hemmed in by the mountains.

The high isolated hill near Dera Ismail Khan is surely the great rocky hill at Pezu, over which I scrambled after markhor in the year 1904! The hills are not named. Important forts and cities are heavily drawn, in some cases with ornamentation. The lesser places, and even wells, are shewn by smaller squares or rectangles, all neatly named. Many of the forts stand isolated with no roads of approach, suggesting that they were known by hearsay only. The map is slightly tantalizing in the way it has to be twisted about to read the names, whether Persian or English. As a general rule the Persian names are written at right angles to the route, viewed from the starting point towards west or north. In some cases, as between Lahore and Attock, the English lettering is reverse to this. This English transliteration has been done by someone well educated, and a good Persian scholar, and an excellent draughtsman. In some cases the transliteration is not exact. For example, at a road junction just west of Delhi is given the English name Kanowle, whereas the Persian script reads *Narnool*. North of Lahore is shewn a fort named Hateera, whereas the Persian reads *Hanbra*. It had not been thought necessary to transliterate the distances in *kos* entered along the more important routes, or the clusters of distances and destinations that appear alongside the principle cities and forts. The descriptive notes have generally been suitably rendered.

It seems reasonable to attribute this transliteration to the great Persian scholar, Major William Davy, referred to above, and it would be most interesting to find other samples of his work. It is suggested that Davy might have had this copy made from the original either at Delhi or Calcutta, possibly under his own immediate supervision; there is generally space left by the Persian writer for the addition of the English rendering. This would admit of the copy and the transliteration being carried out in Calcutta after Rennell's departure in 1777, and before Davy's departure and death in 1784. I have had the whole carefully gone over by an educated Indian draughtsman, whose results are shown on a separate chart.

Rennell's map shews the five rivers of the Punjab most definitely, from east to west, Sutlej, Beas, Ravi, Chenab, and Jhelum. Our map fails to name the Sutlej, whilst the name Chenab has been lost by action of insects and climate, leaving only the *Kondwar Baiya* for Beas, the Ravi, and the Jhelum. Of the other great rivers we find *Darya-i-Gang* (Ganges) in the north-east corner; whilst *Darya Jumna* can be read in English though obscured in the photograph by the black of the stream. To the west the Indus carries its familiar name *Dariya-i-Atak*. The Helmand appears as *Darya-i-Harmand*, but no other river names are found.

Along the main routes the sequence of stages is generally to be trusted, but for cross-country routes there are many errors. Lacking any clear concept of scale or direction the map is generally sadly out of true geographical lay-out, and this has led to confusion in all cross routes.

Compare for instance the following routes in our Mughal map (between Delhi and Kandahar), in Rennell's map of 1792 (*) and any modern map. The great north road, Delhi-Panipat-Karnal-Ambala-Luddhianah-Lahore can be followed without difficulty, but Delhi-Rohtak-Hansi-Hissar-Sirsa-Bhatinda-Kot-(Kotpora)-Ferozepore-Kasur-Lahore is full of trouble, both for our map and for Rennell!

The two roads that lead into Kashmir are those followed by the great Akbar, and by Shahjehan and Aurungzeb, to their summer retreats. The eastern route through Mirpur would enter the valley by the Pir Panjal Pass, but the pass is not indicated, possibly because it was not a halting stage. The road through Punch bears the familiar names of Owree (Uri) and Baramula, well-known stopping places on the modern motor road from Srinagar to Rawalpindi.

From Peshawar to Kabul we can follow the road through the Khaibar (but do not find that name of strife) but recognise Ali Masjid—Chak Dalah (not Jug as anglicised) and Kabul Khurd, but no Jalalabad, though at Kabul we find record of distances to the great cities—Jalalabad, 64 *kos*—Peshawar, 125—Attock 149—Lahore 305 *kos*.

From Kohat runs the road up the Kurram river, past Parachinar, towards Ghazni. The only name that rings a familiar chord is the tribal name Hasan Ali. Then to the south comes the road up the Tochi, with no sign of the river name, nor that of the great fort of Bannu that held the road to the rich plains. But we find the Dour Khel mentioned, the comparatively peaceful Pathans who cultivate the fertile Tochi fields to this day.

The Gumal pass to the south contains no note of Tonk or Wana, held in a later era as British strong points.

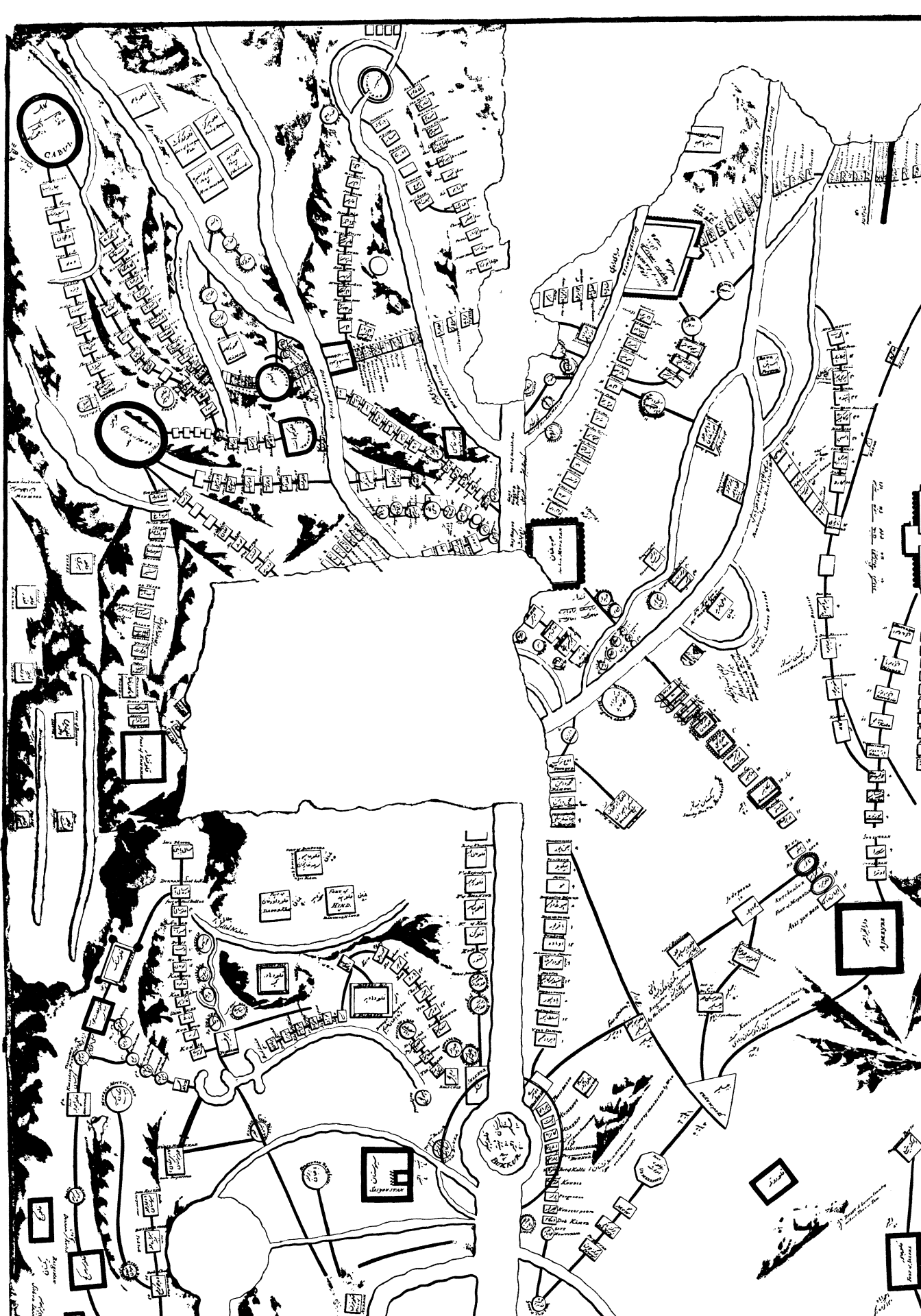
The mouths of the Indus are shewn with symbolic dignity; whilst the rock fortress of Bukkur is enlarged to emphasise its military importance. Its distances, which have not been rendered into English, give—Sewstan-Jalsalmir-Thatta—each 100 *kos* distant—Ajmer 200 *kos*. Sewstan is a puzzler for though not found in other maps it is shewn as a formidable looking fortress just across the river from Bukkur, with distances from Ajmer and Tatta, each distant 100 *kos*.

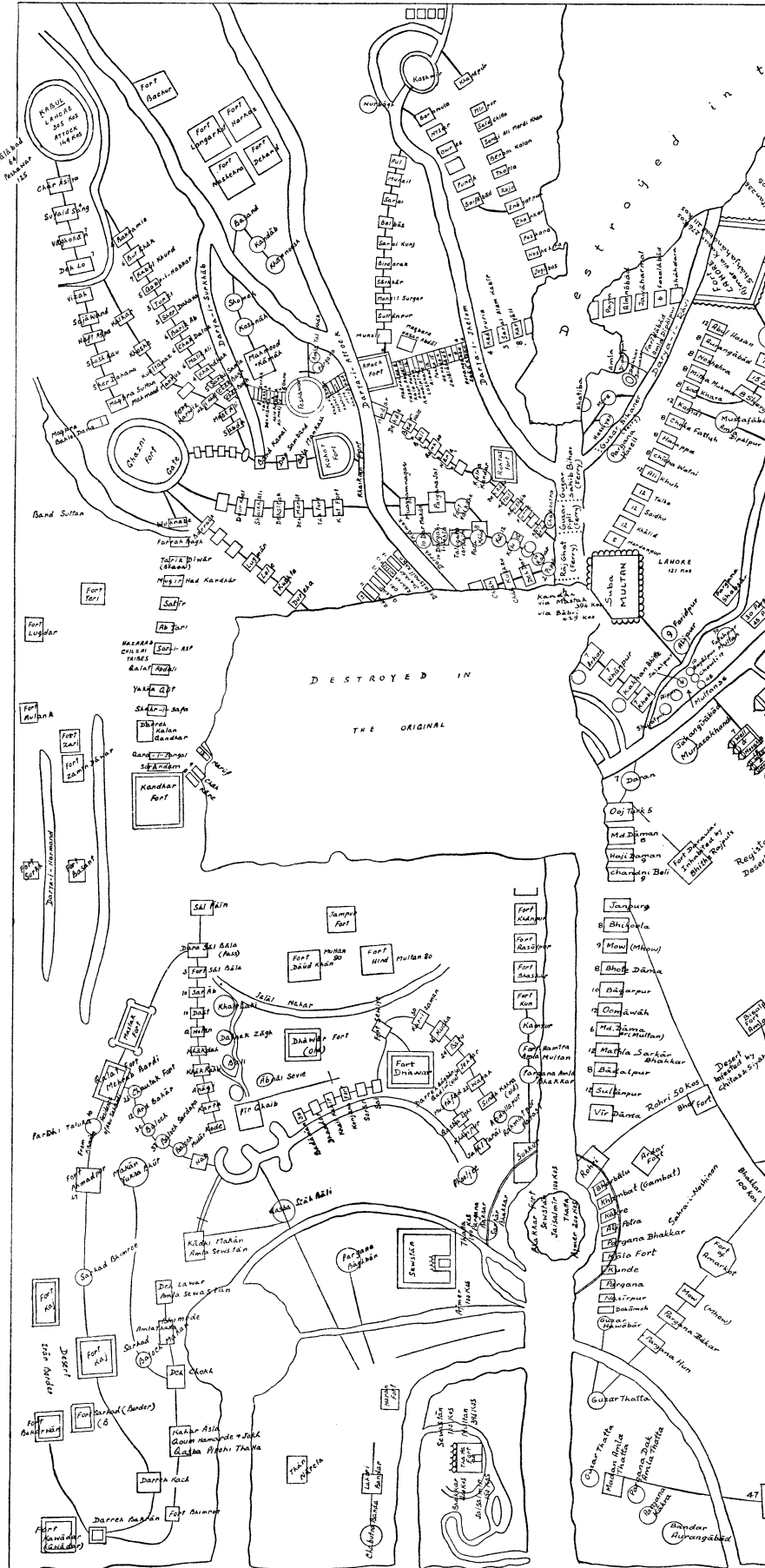
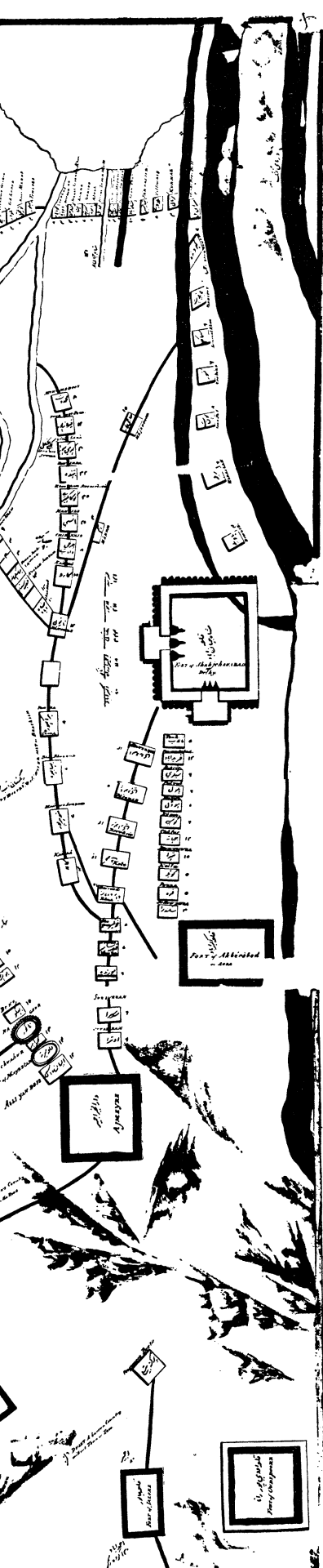
The celebrated Tatta, which truly lies some 80 *kos* south of Bukkur, is shown on our map with its typical domes amidst a maze of waterways, with another cluster of distances, that read—Sewstan, 100 *kos*,—Bhakkar, 200—Jaisalmir, 150—and Multan, with surprising show of precision, as 396 *kos*. There is no suggestion of Karachi, which modern maps shew to lie about 50 kilometers north-west of *Labori Bandar* (ruins), which might place it in the neighbourhood of "Fort Bimroe". It is indeed a remarkable tribute to the worth of our Mughal map to find this name *Labori Bandar* so correctly placed in relation to the famous Tatta, which is in these days but a faded city with a glorious past. Hyderabad (Sind) does not appear even under the ancient name of Nerankot.

The draughtsman covers the stony wastes of Baluchistan in a stride, and makes short work of the 130 *kos* between the western mouth of the Indus and the fort of Gwadar, which appears in the south west corner, with other forts along the IRAN border. Such compression of an unknown area is a familiar feature of old maps. It is interesting to find the name Iran preferred to Persia.

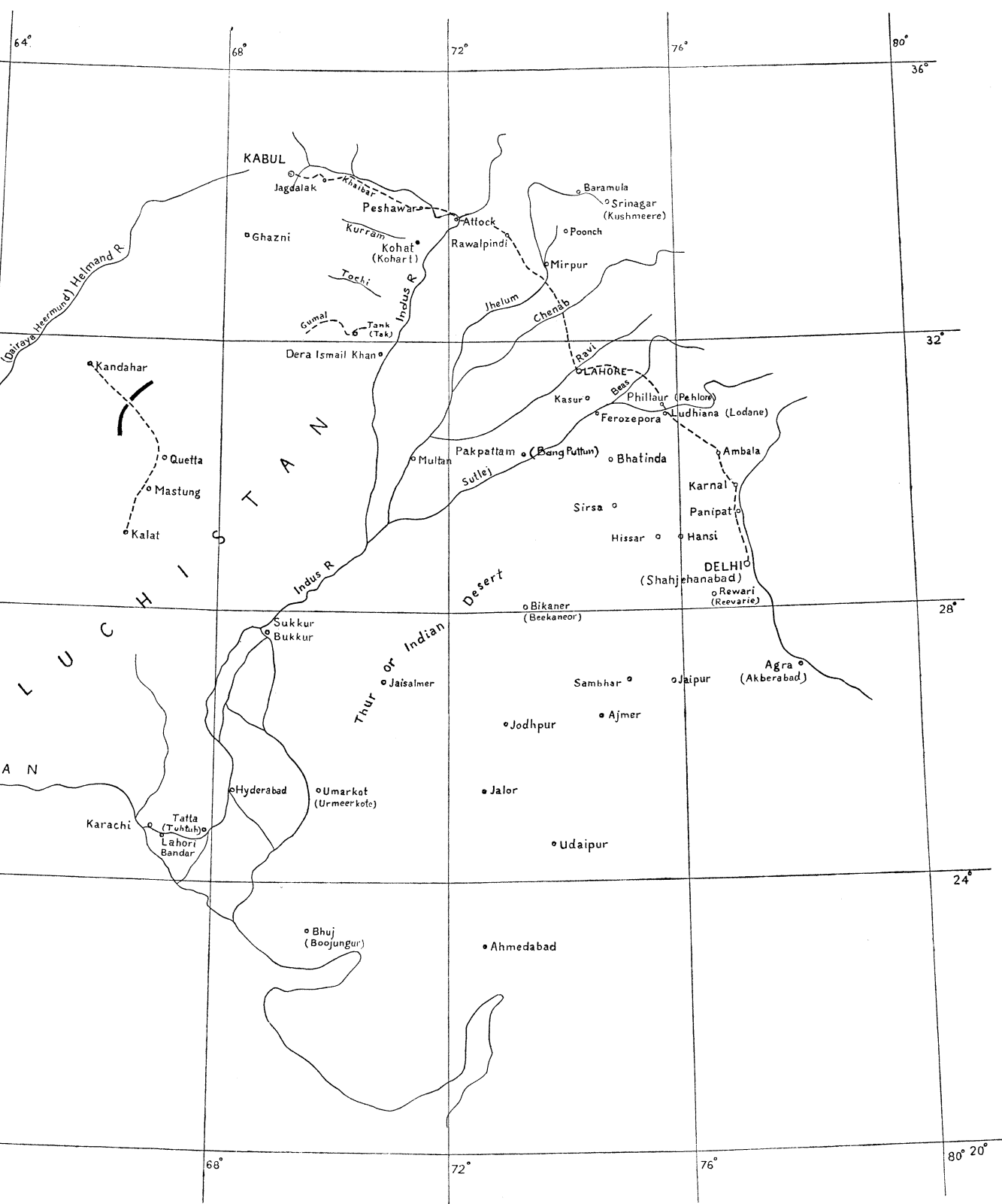
The routes southward from Kabul through Ghazni to

(*) PHILLIMORE, I, pl. 8.

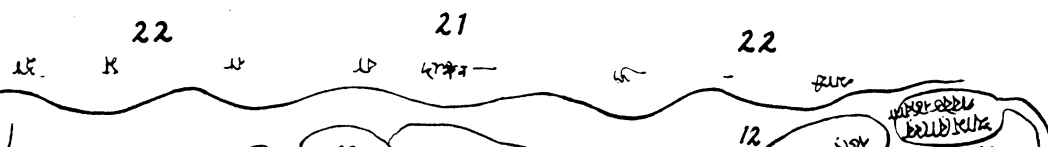


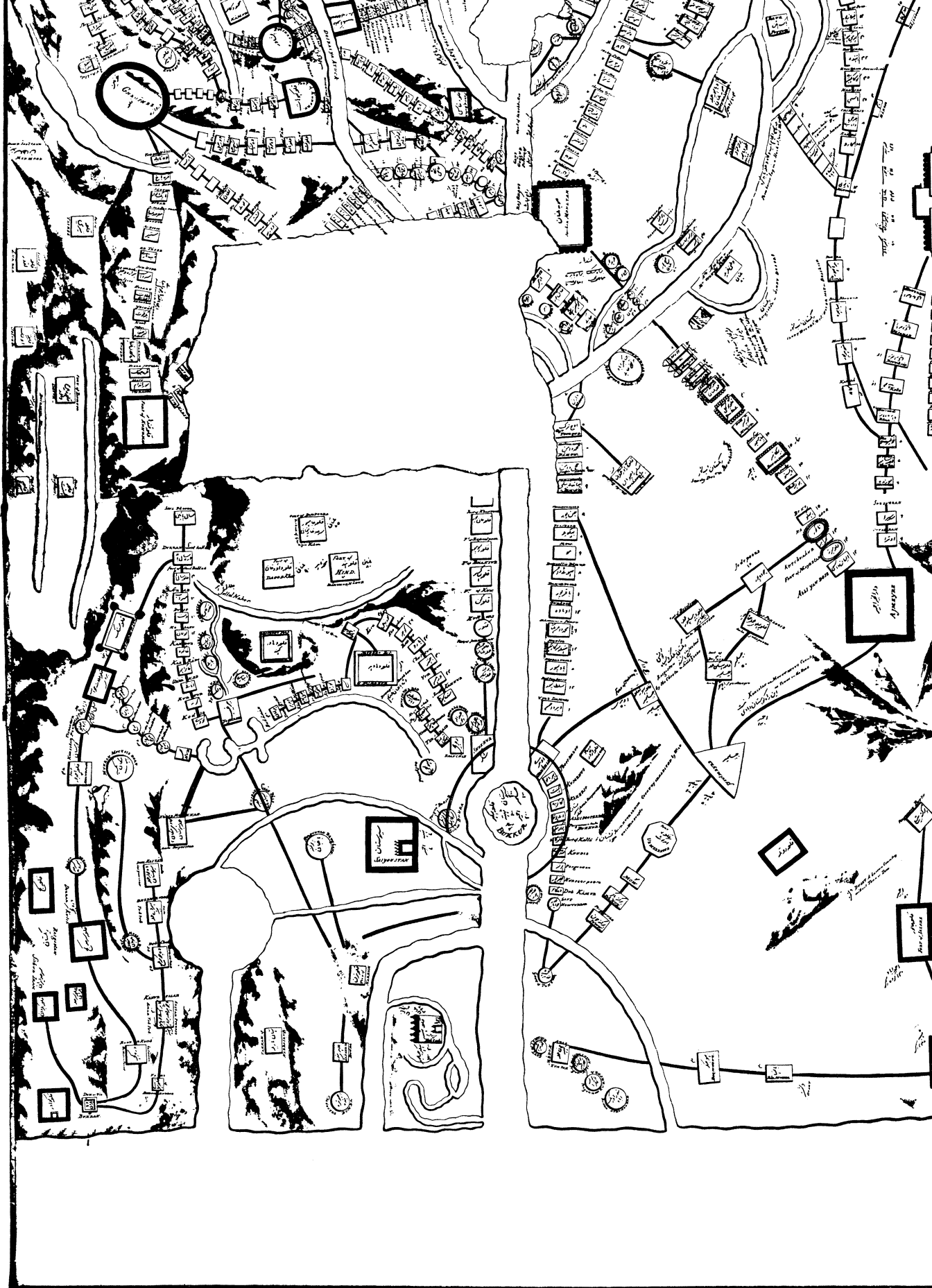


1b. Tracing copy of Mughal Map with English tra

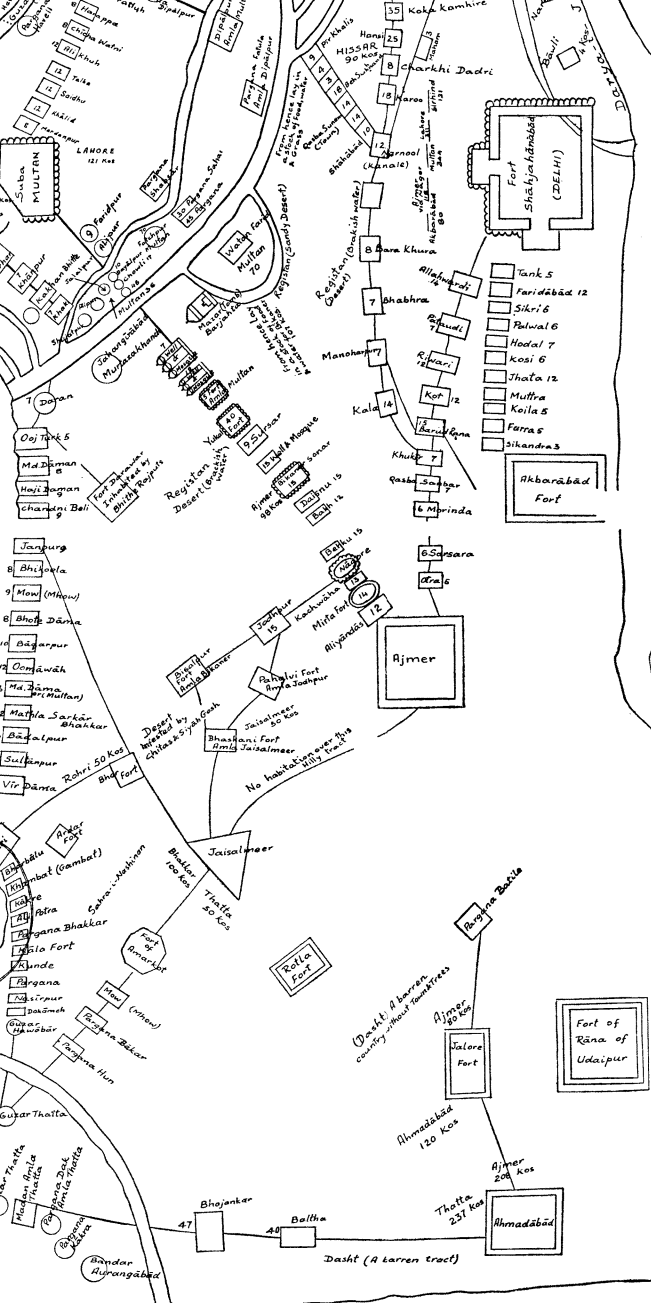


1c. North West India from modern map.



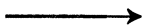


1a. A Mughal Map of Upper India and Kabul.

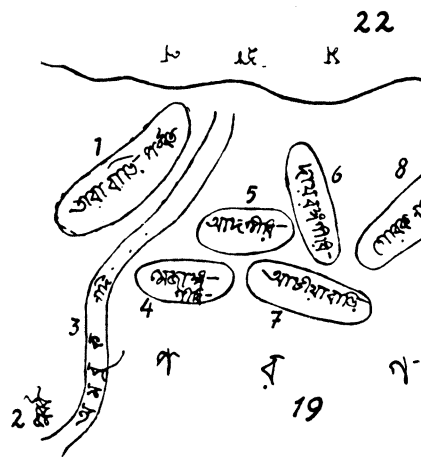
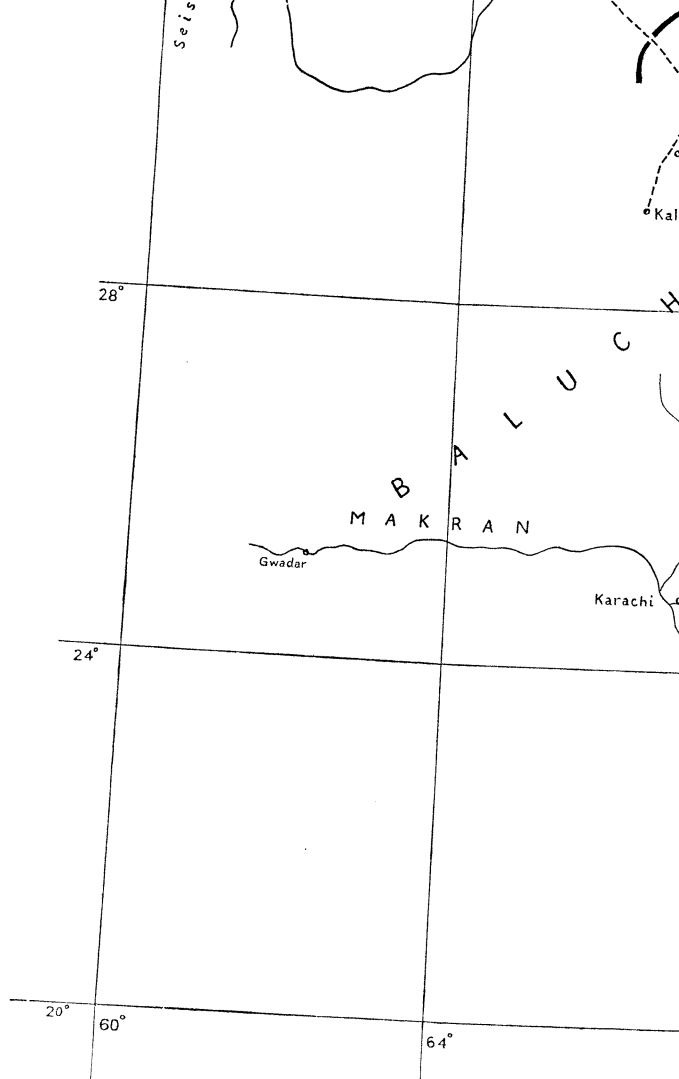


Map with English transcription.

ation of Bengali sketch

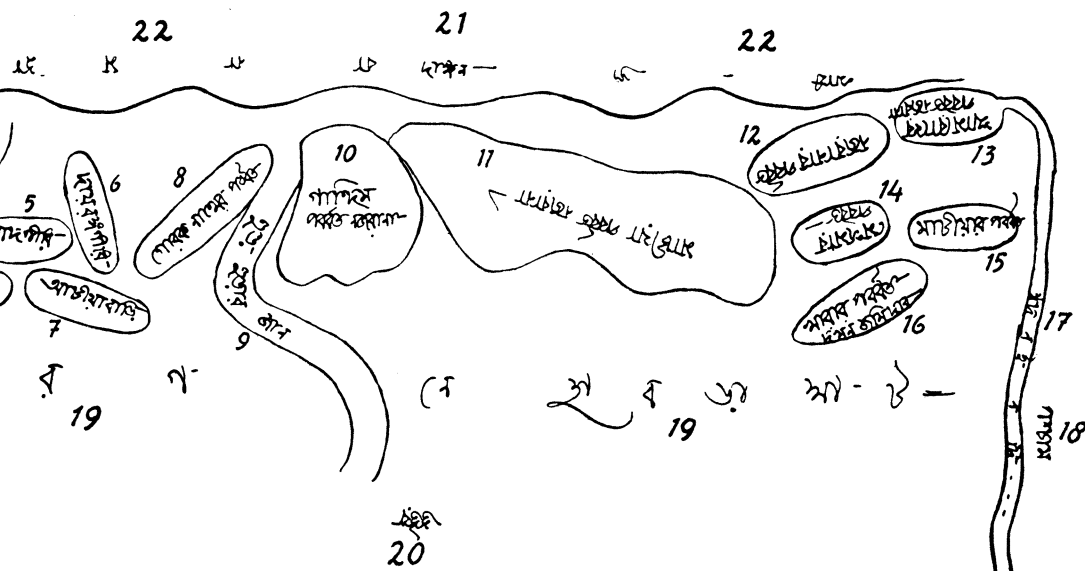


13. Thamroke Parbat Najrana.
14. Mengmar Parbat.
15. Matiya Parbat.
16. Khabar Parbat dakhai (*dakhai* signifies a plot held under the Landholder's direct possession).
17. Id Nai Nadi.
18. West.
19. Pargana of Hobra Ghat (*pargana* means an administrative partition of a district).
20. North.
21. South.
22. Khas Jabana Mohal (*Khas mohal* means an estate under Landholder's direct administration).



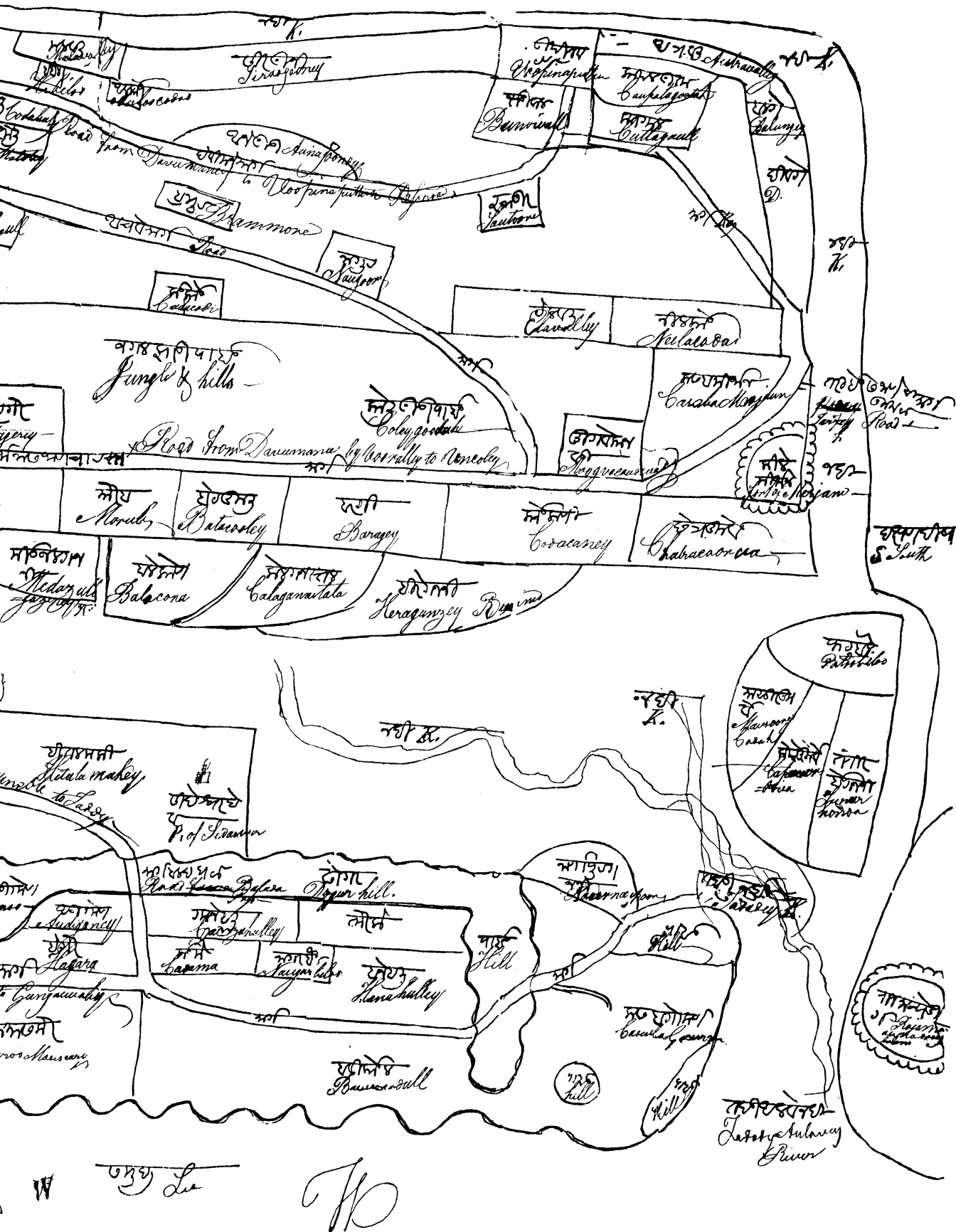


1c. North West India from modern map.



2. A Bengali sketch of part of the Boundary of Habraghat, Lower Assam.

The map is a hand-drawn representation of the Baramulla district, showing various villages, rivers, and geographical features. The map is labeled with names in English and Hindi. Key locations include Baramulla, Srinagar, and various smaller villages like Anantnag, Baramulla, and Srinagar. The map also shows the Jhelum River and the surrounding hills. The map is drawn on a grid of lines, with labels for each area. The map is titled 'Baramulla District' at the top. The map is drawn in black ink on a white background. The map is a detailed representation of the Baramulla district, showing its geographical features and administrative divisions. The map is a valuable resource for understanding the region's geography and history.



Kandahar are obviously very well known, and shew much detail, with mention of—"Abdali Tribes, Haraza and Ghilzai Tribes",—but nothing is noted about the important Pathan tribes of the frontier passes—Afridis—Wazirs, etc. South of the formidable Khwaja Amran appears the fort *Sal Bala*, the ancient name of Quetta, from which extend the trails of obviously well-known routes—to the east to Sukkur and Bukkur on the Indus, but with no trace of the important Sibi. To the south we find a road running through Mastung and Kalat, the latter not having been transliterated into English; as if its existence was unknown to the English translator. This route drifts south with such uninformative place-names as Baloch Makan (a Baluchi hut!)—reaching to Darrah Bakran near the sea coast, an obvious rendering of the modern name Makran.

The translator appears to have considered the recorded distances as not worthy of translation, so it may be well to note some of them here. Just west of Delhi we find recorded—Akbarabad (being Agra), 80 *kos*—Ajmer via Nagor, 118—Multan, 344—Lahore, 211—Sirhind, 121. At Watan Farid, to the west, we find Multan 70 *kos*—and at the crossing of the Sutlej we find Multan, 36. Reaching Multan we find Lahore to be 121 *kos* distance (in fact about 200 miles). So we may take it that the map is as erratic in the matter of road distances as it is over scale, bearings, and geographical positions.

The wildness in geographical positions is well illustrated in the case of Kashmir which is shewn far west of Lahore, instead of being slightly to the east; it is shewn equidistant from Lahore and Kabul, whereas it is about 200 miles from Lahore and more than 300 from Kabul.

Kandahar is shewn well to the east of the Kabul meridian, whereas it is really almost south-west.

To illustrate the distortion of the Mughal map, I have made a small sketch map from a modern map, in which I have shewn the true position of many of the places that are recognizable in both.

It will be noted that very little was known of country to west of the Kabul-Kandahar route; the existence of the Helmand river was known, but no effort was made to mark its course, which runs from the hills to the west of Kabul, and flows south-west to the swamps of Seistan some 400 kilometers west of Kandahar. Beyond the Helmand is shewn Fort Surkh, and to the near side forts Zamin Dawar and Basant.

Of the many descriptive terms used in the map we may mention—*Qela*, or Fort—*registan* (*reg* means sand), a sandy barren tract—*sarhad*, the border or frontier—*dasht*, a desert plain—*daraiya*, a river—*pargana*, a district or part of district—*soubah*, a kingdom or state.

An important map published at Washington in 1946 shows the name REGISTAN across a wide area south of the Helmund and Kandahar as if it were the name of a political province.

Being generally a road map intended for military purposes, the map contains many remarks about the nature of the country that would be of value to a military commander; between Delhi and Multan at the edge of the "Registan or sandy desert" we are advised "here lay in food, water, grass, for Beekan, which is distant . . . 107 *Koss*"—"Sandy desert and Brackish water"—South west of Jodepoore we are told of "Registan, infested by the *cheeta* (the hunting leopard) and *seiyah goshe* (caracal or lynx)". The fort of Darwar is "inhabited by Bhith Rajputs".

Agra is correctly named Akbarabad, the city of the

great Emperor Akbar, and just to the north is Sikandra, where he lies buried in a noble monument.

This note has been written in haste without any deep research. Further light on the identity of the places named might well be found by careful study of early maps and literature, or by any one who was more fully acquainted than I am with the north west frontier and its people.

This might provide a delightful exercise of "comparative geography", suitable for any student of oriental geography, who was in a position to travel through these countries so rich with historic setting. He should be well equipped with full knowledge of the many languages and peoples of this grand country that lies between the Jumna and the Helmund. How the map-makers and travellers of old, Francis Wilford, John Macartney, Charles Masson, Thomas Holdich, and Aurel Stein would have rejoiced over these two precious sheets.

2. A Bengali sketch of part of the Boundary of *pargana* Habraghat, Lower Assam.

The small sketch here reproduced is one quarter of the size of the original sketch which was found on a page of a volume of correspondence of 1849 of the Revenue Surveyor in charge of the survey of Goalpara District, Lower Assam.

A covering letter from the Deputy Collector at *Dookhabparah*, 1st April 1849, informs the Surveyor that it is "a Bengally *Nuksba* (sketch) of the boundaries of *Pergunnah Habraghat*". The sketch is initialed by the Deputy Collector; the outline of boundary and streams being in faded ink, and the Bengali names in bold black ink. Though it is just possible that the outline was roughed in by the Deputy Collector, an Anglo-Indian, the lettering is definitely written up by one of his Bengali clerks who was in no way a surveyor.

The purpose of the sketch is to indicate to the professional surveyor the general position of the lands of which he was to survey the limits.

The names are written in various directions, some reading from the north and others from the south. I have had them numbered serially to correspond with the translations.

The hill areas would be heavily wooded, and incapable in those days of producing any revenue. The whole area beyond the south boundary formed part of the Garo Hills, that had not then been explored by Europeans.

3. A Maratha map of North Kanara.

Amongst our Survey of India records at Dehra Dun is a Maratha map of North Kanara, probably drawn towards the end of the 18th century. It may be a copy (1).

It is very rough and untidy, with names and descriptive notes in the Maratha language in the *Modi* script, the old script that is still taught in the schools and used in the law-courts. The Maratha language can be written, either in this old *Modi* script, a running hand that cannot be reproduced in type, or in the more popular Marathi script which is used for type and printing.

(1) Survey of India, Dehra Dun, MRIO, 124 (2).

The map is about 150 × 55 centimetres, the one sheet being a paste up of about six small sheets of old paper which have a watermark probably of Portuguese origin.

The office label, obviously inspired by a reference to "the Boundary of Goa" which appears on the north edge, describes it as "Sketch of GOA by a Native of the Country". On comparison with modern maps, I soon found that the *south* boundary of Goa was intended, and that the map covered the north coast of North Kanara southwards to the AGHNASHINI RIVER, which flows into the sea by the Tadri Creek.

The map stretches from the sea inland to the top of the ghats and the table land of Sirsi, covering an area of about 35 miles along the coast and about 12 miles inland. It includes the important modern towns of Karwar, Ankola, and Mirjan, though the name Karwar does not appear and Ankola is rendered as *Uncole*.

The main coast line and rivers and roads are roughly sketched in, and ferries indicated. Five places are shewn as Forts, as also are the islands of KURMAGAR (Curma cally) and Anjidir (Auzadraup or Anjadevy), *gar* meaning Fort, and *giri* meaning hill.

Village (*mauza* or *graum*) names correspond frequently with modern names, and the limits of their lands are roughly sketched in, as also are the limits of lands described as jungle, hill, paddy fields, or gardens.

Names are given to several of the passes to the high lands on the east, but names are not given to the important rivers Kali Nadi, Gangavate. The Adkna shini River which joins the sea through the Tadri Creek on the south margin of the map appears as the *Taradri Aulavey* River.

It is to be noted that the *Modi* names are well and clearly written in a strong black ink, whilst the rough outline of the map and the English translations are faded. The English names are squeezed in and so badly written as to be difficult to read, but on the whole are very fair renderings of the vernacular.

Amongst the modern names, on Survey of India one-

inch maps 48J/1, 6, 7, that can be identified on our Maratha map are, from north to south,
Mudgeri (Moodagari) Soogadgiri (Soogau Hill)
Majali (Mauza uly graum) Haru Masgeri (Hauroo
Sadashivgarh (Sad ausingod Mausary)
Pahar, hill) Rajmandurg (Rajamauna
Binge (Benegagraume) Droog)
Manjguni (Munzoogoony) Phattubele (Patubiloo)
Agragon (Augaragonoo)
and on the east, Hadhimadi River (Hundey Maddey R)
"crossing into sea".

The Maratha draughtsman who examined this map with me at Dehra Dun did not know the English for the island name *Coormaculey*, but said it was a creature with a hard high back, and ridges that spread out like the island rocks running into the sea: in fact, he said, there is one in our pond outside. We at once recognized the fitness of the name *Kurma* which means a Tortoise, or turtle.

As to the date of the map, and the circumstances of its preparation. North Kanara was occupied by the Marathas before the middle of the 18th century, but shortly after it was conquered by Tipu Sultan of Mysore, who held the country against the attack of the British, which culminated in the destruction of General Mathew's force at Bednur, and Torriano's masterly defence of Honavar (Onore), which lies some 15 miles south of Mirjan.

After the defeat and death of Tipu at Seringapatam in March 1799, Kanara was taken over by the British and administered for some years from Madras. Whilst Mysore and South Kanara were surveyed under Colin Mackenzie between 1801 and 1806 (?), Sonda, or North Kanara, was not surveyed till some eight years later.

It is suggested that this rough map may have been prepared for the first British Collector of 1799, for whom it would have provided the most valuable information.

The reproduction here published has been reduced to one quarter of the original size.

R. H. PHILLIMORE.

Chronicle.

Belgium.

Theatrum Orbis A. Ortelii 1570—B. fr. 7800.— and Ptolemy's Geographia 1578—B. fr. 4.400.— were on sale in 1951.

An exhibition of early maps was arranged in the Bibliothèque Royale de Belgique in connection with the IXe Assemblée Générale de l'Union Géodésique et Géophysique Internationale in August 1951. A catalogue (mimeographic) of the exhibited items was issued.

Czechoslovakia.

At the meeting of Le Comité national d'Histoire des sciences on March 15th, 1950 K. Kuchař read a paper "Les progrès dans l'histoire de la cartographie".

France.

Albert Kammerer died on June 21, 1951. Albert Kammerer, as is well known, combined in the course of many years his diplomatic activity, in capacity of Ambassador of France in Cairo, The Hague, Ankara and Tokio, with scientific researches in the domain of the history of cartography. His magnificent publication "La Mer Rouge

et son histoire depuis l'antiquité jusqu'à nos jours" is of particular interest to historians of cartography. See *Imago Mundi* VIII, 117.

Germany.

An exhibition of maps and documents relating to the history of the city of Frankfurt was arranged in Frankfurt a/M on May 10-11th, 1951 at the Museum Senckenberg on the occasion of the meeting of the Deutsche Gesellschaft für Kartographie and the Deutscher Geographentag. Among other papers read at the exhibition, W. Krüger read a paper, illustrated by slides, on the development of E. Etzlaub's road-map.

The Kartographischer Ausschluss in Munich has organized an Unterausschluss für historische Kartographie. The new section is in the first place charged with establishing the whereabouts of the early maps surviving after World War II and cataloguing them. The second task will be the preparation of microfilms of these maps. This material will be afterwards transferred to the

(¹) PHILLIMORE, II, 93 *et seq.*