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152

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"It will flourish, if naturalists, chemists, antiquaries, philologers, and men of science in different parts of *Asia*, will commit their observations to writing, and send them to the Asiatic Society at Calcutta. It will languish, if such communications shall be long intermitted; and it will die away, if they shall entirely cease." SIR WM. JONES.  
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## ERRATA.

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- Page 207, line 2, *read* (With two Plates).  
" 208, " 7, " Plate XVIII.  
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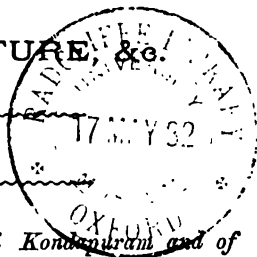
# JOURNAL

OF THE

## ASIATIC SOCIETY OF BENGAL.

Part I.—HISTORY, LITERATURE, &c.

No. I.—1880.



*Description of the Great Śiva Temple of Gangai Kondapuram and of some other places in the Trichinopoly District.—*

By LIEUT.-COL. B. R. BRANFILL. (With a Plate.)

During the past season I visited and examined the great Śiva temple of Gangaikonda (-Shola-)puram (Gangacondapuram of A. S. 79), situate in the extreme E. N. E. part of the Trichinopoly District, 20 miles S. W. from Chidambaram.

As this is the largest\* and best specimen of a South Indian temple proper I have ever met with, I venture to offer a short description of it. Roughly speaking it is a facsimile of the great Tanjore Temple, possibly its prototype, or perhaps more probably a copy; but never having been "restored," as the Tanjore example has, and being built throughout in a very hard kind of stone, it retains much of its pristine appearance and purity of design, which has been lost there.

I made notes of my observations on the spot and took measurements, sketches and some impressions of the inscriptions with which its base is covered, as specimens of the character, which is mostly old Tamil, very similar to that at Tanjore.

Gangaikondapuram is the site of a deserted town supposed to have been the city or chief town of Gangaikonda Chóla.

\* The largest Indian sanctuary towers mentioned by Fergusson (Hist. of Arch. Vol. III.) are those of Jaganáth at Puri and the great Tanjore Pagoda, which are 80 and 82 feet square at base respectively.

Most of the inscriptions appeared to be mere statements of gifts made to the temple by private persons. The western and southern (side) inscriptions appeared to be mostly in the Tamil character and language with occasional Sanskrit formulæ to begin and end with. Those on the northern side were said to be chiefly in Grantha and Telugu or other (than Tamil) characters.

The temple consists of a grand stone "stubi" (as they called it), a sanctuary *steeple* or *Vimánam* on a raised basement or terrace, decorated by a rail ornament below, having the upright posts engraved with griffins (or *Yáli*), and an elaborate scroll-enveloped animal or figure on every third or fourth post, but no cross-bars or horizontal rails between.

The *Alóḍai* or terrace-path is  $3\frac{1}{2}$  feet wide, surrounding the entire temple, including the great *Veli-mandapam* or Outer court, at a height of about 5 feet above the (original) ground level.

The great pyramidal *Vimána* is 100 feet square\* at base and about 165 feet high. The double story below the pyramid and immediately above the terrace basement is vertical, with five compartments or towers on each face (north, west and south) of the temple, separated by four deep recesses, with a handsome sculptured ornament (*purána kumbam*) in each recess. Each projecting compartment has a fine sculptured figure, chiefly Śaiva but not without important Vaishnava figures, and the plain intervals of flat wall are covered with (?) historical scenes of rishis, kings, worshippers and attendants, celestial as well as terrestrial, in low relief.

Above the double vertical story rises the pyramidal *stubi* in seven stories to the neck which is spacious and supports four bulls (as at *Tanjore*) below the dome or semi-dome.

The whole temple is of stone throughout, and the domed top is apparently carved to represent a copper tile or leaf-pattern covering, like that of the five halls (*sabha*) at *Chidambaram*.

The only or chief ornament of the pyramidal portion of the tower is the square and oblong cells of "Rath" (= car) or *Gópuram* (= spire-roofed) pattern, with their elaborate fan-shaped windows, like spread peacocks' tails.

There is little if any stucco to be seen, the whole being of pure stone.

On the east side and attached to the great *stubi* is the *Méle-Mandapam* (= a high court or west court), a three-storied portico or transept covering the cross aisle between the north and south entrances to the Temple; this is built to match the *Vimána*, as at *Tanjore*.

To its east again and attached to it, is the west wall and end of the great Outer court (*Veli-mandapam*), begun in the same magnificent scale

\* See note above.

and style, but never completed : for it is broken down or left off rather abruptly, and finished by a plain large hall, completely enclosed by its four walls and flat roof, only half the height originally designed.

It measures 80 feet wide, North and South, and 163 feet long, West to East, with a plain doorway in the middle of the east end, having huge stone warders (*dwárapál*), but otherwise devoid of any fine ornamentation. It is 18 or 20 feet in height, and the roof is supported by four rows of plain stone pillars.

There is a large uncovered and incomplete portico in front (East) of the Veli-mandapam, approached by a double flight of steps from North and South and 10 or 12 feet above ground level, which is the level of the interior of the mandap and temple.

The court-yard of the temple is about 610 feet East and West, by 350 feet North and South, with a fine gópuram or entrance tower built entirely of stone (fast falling down) on the East, of grand but suitable proportions, not half the height of the temple itself. Usually the gópuram is 8 or 10 times as high as the temple sanctuary.

The court-yard or quadrangle was once surrounded by a double-storied open cloister of plain but solid stone work, said to have contained 365 cells (in the two stories), but only a few of these remain in the centre of the north wall there is a small plain doorway.

The surrounding wall was of stone and must have been about 25 feet high.

The sculptures round the base of the temple are very good in design and execution.

The architecture struck me as grand, simple and pure, with many traces of the wooden construction of which it is, in many respects, a copy ; especially in the projecting beam-heads at the angles, each of which is surmounted by a rude lump roughly resembling a flattened spiral (conch-) shell, perhaps intended for the *sálagrá*m (black ammonite or serpent-stone) ; only this is a Śaiva temple.

I did not notice the *Nága*, but saw traces of trees with umbrellas over them.

The (proper) right hand *Dwárapál* has the right foot raised and resting on a stump (of a tree), encircled by a serpent with a half-swallowed elephant in its mouth, at all three doorways alike.

The projecting stone cornice of single convex flexure is massive, but does not stand out so far as in many more modern cases I have noticed elsewhere, but is, I should say, more free and prominent than some to be seen at Chidambaram.

I did not see the imitation of wooden rafters and laths, with nail heads &c., to be seen at Tinnevely.

The usual Bull (*Nandi*) in front of the temple is a poor one, compared with that at Tanjore.

The minor temples and shrines in the court-yard are inferior and mostly in ruins.

One of the more conspicuous of the sculptures represents Śiva coming out of an opening (*yōni* or split) in a cylindrical stone column (or *lingam*).

This figure is represented at Tanjore and elsewhere, and is to be seen repeated here several times in various parts of the Gangaikonda Sholapuram temples.

A figure of a rishi (*Mārkaṇḍa*) on his knees, with forehead on the ground, is below.

The pillars and pilasters are very plain, square in the four towers (or *rath*-like portions), forming the four corners of the *stūbi*, ornamented by pointed leaves below the capitals, which are very fine large tabular slabs.

The square pillars or pilasters are not cut away to the octagon form leaving square blocks, as is common. The pillars and pilasters of the next, intermediate, partitions or towers are octagon throughout, with similar lanceolate ornamentation and (octagonal) capitals.

The central partitions or towers have 16-gonal pillars and pilasters with similar ornaments and capitals.

The plinth moulding is very grand, bold and chaste. It recalled to my mind the pattern of the plinth moulding of an unfinished temple at Kuttālam (*Courtallam*) in Tinnevely.

The flat portions of the walls are covered with (?) historical scenes in which rishis and country folk, herdsmen &c., figure largely.

There are three or four wells in the Temple court, one of which (the Sin(g)ha Tirtham) is connected with the legend of the founding of the temple and possesses a never-failing supply of very good water.

I noticed that the name on the Tamil inscriptions was Gangaikonda Sholapuram and Gangaikondaapuram. The inhabitants now call it Gangaikandapuram. They told me that the Stalapurāna or local historical record of Gangaikondaapuram had been taken to Tanjore and a copy placed in the Rajah's library there, whilst a copy (or the original) was taken and kept by the copyist who now resides at Nachaiyārkōvil (or at Tirichirai) near Kumbakōnam.

Another place of interest I visited may be worth mentioning though quite modern, and that is Rāmalinga-pillai-sālai, a remarkable church or college building, called variously *Pardésimaḍam*, and *Sanmārga-Sabai*, situate on the high road from "Cuddalore" to Vriddhāchalam, a mile or

so west of the point where the high road from Madras (viâ Panrutti) to Kumbakónam crosses it.

A few years since, one Rámalingapillai collected followers and money and attempted to establish a new religion. He appears to have taught the ethics of Christianity without its theology. But I could not get at any precise particulars. Having collected some hundreds of followers (2000 was stated) and built his college, Rámalingapillai retired with some ceremony into concealment in a house, now styled "*Tirumáligai*," in the village of Moṭṭukuppam, a few miles distant from the College.

He is said, by his followers who now await his re-appearance at "the last day," to have never come forth from the room in which he disappeared, or to have been seen again.

I think the true facts of the case are worth eliciting and putting on record. The building is a remarkable one of brick and *chunam* in the modern Eurasian composite style, and the domed part of the roof or cupola appears to be covered with sheet metal.

I also visited Chenji or Sanji-Kóṭṭai (Anglice *Gingee*), a remarkable precipitous bluff rock, covered with and surrounded by fortifications of no very ancient date apparently. It is just the kind of stronghold that was likely to be seized on and held as a citadel by the successive conquering armies that have overrun the Carnátik for some centuries past.

The most interesting thing I observed here, beside the natural fastness (a notice of which is to be found in the *South Arcot Gazetteer*), was a very rudely carved stone lying in front of a small shrine halfway up the rock on the south side, dedicated to a local goddess called Kamala-kanni-y-amman to whom human sacrifices were formerly offered. Plate I shows copy of a rough pencil sketch taken hurriedly on the spot. Four human heads occupy a square raised shield, with two parallel bars in the centre like a pair of dumbbells with small knobs, which might stand for footprints. Each pair of heads is separated by a *triśul*-like mark immediately above and below the pair of bars in the centre. Above these in the centre at top is a pair of ram's (?) horns, surmounted by a short transverse bar and appendage which I could not make out, and in the centre below, a corresponding pair of buffalo (? *kulgá*), horns and head. A bow to the right and five arrows to the left on the lower part of the stone, at each side of the raised part, complete the carving. The arrows are club-headed and feathered, and one of them is furnished with a hole at one end, as if to hold a line. The entire stone is an oblate circle about  $3\frac{1}{2}$  feet high and  $4\frac{1}{2}$  feet wide, and not very thick, lying flat on the ground. Close to it is an upright figure of "*Minudaiyan Virappan*," with hands together in the attitude of respect or supplication, and a sacrificial post stood near.

The *grám-munsif* said that this “*kóvil*” or chapel was held in great respect by the country-folk and was originally there before the present fortifications were built. Sacrifices are still made in times of drought and dearth and are supposed to be very efficacious.

The temples at the base of Chenji and some of the sculptures and remains are very interesting, extensive and well wrought, but apparently modern, though quite deserted and going to ruin. The monkey god Hanumán is to be seen in several places sculptured on the rocks.

Since the road was made which passes through part of the Chenji fortress, it has been frequently visited and despoiled of its sculptured treasures. I was informed that the fine columns which adorn the “*Place*” at Pondicherry were removed hence by stealth, by an enterprising Frenchman. But we need not grudge them, for they are appreciated highly where they are, instead of being neglected and lost sight of in the spot where they formerly lay.

Some very handsome sculptures have been removed and set up at Chittámúr, a few miles distant to the eastward, near a new temple built by a neighbouring chief.

The traditional founder of the fortress is said to be one Supálaka (or perhaps rather *Tupákala*) Náyak.

I may here mention that the Stalapurána of Senji-Kóttai was stated to have been taken away by the Collector of the District (S. Arcot), a few years ago, and never returned.

At Mailam (= *Mayúrastalam*) near Tindivanam, the Tamburán (or abbot) informed me that his temple was founded by King Jayamba or Jayambaga Mahárája, from the north, who also founded or built Senji-Kóttai. This old fellow is a very fine specimen of a man who never touches flesh or any cooked food, but lives on fruit and milk only. He has repaired and restored his temple and is now building a fine stone gópuram on which I was shown a sculpture of himself in the style of an old bearded Rishi. He reminded me of the Tamburán (or abbot) of Tíru(p)pan-andál near Kumbakónam.

Another very interesting place I visited near Tindivanam is Perumukkal (“*Pernacoi*” of Orme and of the Indian Atlas, sheet No. 78). Perumukkal is the common pronunciation in the district. At the place itself it is called, and written also, Perumukkúl.

Like Senji-Kóttai it has been a fortified stronghold for some centuries. It has a fine large stone mandap on the summit and some small temples or shrines, but the ruins of some larger ones strew the summit, sides and base.

The rock is an isolated one of dark granitic boulders, very precipitous in most places. It is the last to the S. S. Eastward of the rocky masses that stud the plain of the Karnatik to the south-west of Madras.

I noticed stone circles at its eastern base, as well as at other stony places to the west and south-west, on both banks of the Ponniyár (S. Pennár or Pinákiñi.)

Mr. Garstin in the S. Arcot District Manual gives Peru-múkal (=great travail), from a legend of Sítadévi having here given birth to twins. There are two villages near, called Nalmukkúl (or Nanmukkúl) and Palamukkúl, names having reference to the same legend. Mr. Garstin also mentions Jánikipéttai, and I may add Rámanáthapuram, all in the immediate vicinity. But the old Sannyási or hermit sent for the stalapurána (kept by an artizan in the neighbourhood) and wished to show me from it that the proper name of the hill is Mukkiyáchalam, and that it is therein styled Madhyakási (Middle Kasi) and is the scene of Rishi Válmiki's penance, death and burial. A ruined shrine attached to the mandap is pointed out as the spot where he was interred.

There are the remains of many fine sculptures here, destroyed by the Muslim, and many inscriptions on the base of the temples.

The fort was held and besieged repeatedly in the wars of the Karnátik in which much damage was done by the roundshot.

The following observation may be worthy of record.

At Gangaikonḍapuram the wells are said to have a perennial supply of good water near the surface, that fails not in the driest seasons ; and at Chidambaram the same is said of the great tank in the temple enclosure. At Tiruvaḍi (A. S. 79), close to Panrutti, I noticed in the bed of the Geḍilam or Garuḍanadi (the "*Cuddalore*" river) a natural spring or fountain of clear water, welling up with some violence in the midst of the muddy river-water. It is said to be perennial and to be as good as Kávéri water, whence it is locally called *Kollaḍattumólai* = *Kolladam* or "water-spring".

In connection with these I may mention the artesian wells that have recently been opened at Pondicherry and suggest that the perennial supply at Gangaikonḍapuram, Chidambaram and Tiruvaḍi may be explained by there being at those places a connection with the water-bearing stratum which is the source of the artesian wells, underlying the extensive laterite beds of the *Cuddalore* or S. Arcot district. I have heard of other places, particularly near Villapuram on the South Indian Railway, where the subjacent springs have been tapped by the natives and the outflowing water long since utilized for irrigating their fields.

*Rude Megalithic Monuments in North Arcot.*—  
By LIEUT.-COLONEL R. B. BRANFILL. (With a Plate.)

I have just had an opportunity of visiting the disused *tomb-field* at Iralabanda Bápanattam, in the Palmanér taluk of North Arcot.

The tombs here are of unusual interest from the size, shape and arrangement of the slabs of which they are composed, and the rarity of their chief characteristic.

The usual *kistvaen* or megalithic sepulchral cell is enclosed by three concentric rings of upright stone slabs, each slab having its top rudely worked (chipped or hammer-dressed) into a semicircular or a rectangular shape, and set closely side by side alternately, the round-heads standing higher than the intermediate flat-heads by the amount of their semi-diameter, *i. e.*, the height of the rounded portion, so as to form a parapeted wall of rounded *merlons* with flat silled *embrasures*.

These walls or parapets rise in three concentric tiers on a slight mound or cairn, a foot or so above the general ground level.

The outer circle or tier consists of some 24 slabs, nearly 3 feet wide, half of them being semicircular at top and standing about 3 feet high, the whole forming a ring fence or enclosing wall about 30 feet in diameter.

The second tier has 16 slabs, 8 of them round-headed, rising to a height of 5 or 6 feet above the cairn or mound; the whole forming an intermediate ring-wall about 22 feet in diameter.

The third or inner wall is composed of four prominent round-topped slabs, 8 to 10 feet wide, and 12 or 15 feet high above the cairn, and 4 or 5 feet higher than the other four flat-headed slabs that stand between them and complete the inner ring, an octagon of some 16 feet in diameter, or rather a square of 12 to 15 feet, with the corners cut off.

The *kistvaen* or sepulchral chamber nearly fills up the internal space, the capstone or covering slab of which sometimes projects horizontally beyond the chamber below it, so as to fit closely to the four great round-headed slabs that enclose it, the 4 flat-headed corner stones being only about the same height as the capstone, and narrower than the others.

The only entrance to the interior was apparently intended to be solely by small holes broken in the two or three central slabs on the east front, and nearly opposite to the similar hole in the eastern wall-slab of the *kist*. There is a kind of antechamber or closed portico between the inner chamber and the inner enclosing wall, provided with a moveable shutter stone or slab.

The stone slabs used throughout are comparatively very thin, being usually about 3 inches thick, and even the great capstones seldom exceed 6 inches.



The whole forms an imposing structure, and recalls the idea of a small citadel or fortification.

There are many examples, perhaps a score or more of this pattern, still partly standing, and about as many more of a very similar kind, only without the round-headed projections, all the slabs in each ring or tier being of the same height, about 7 feet above ground level, and completely hiding the enclosed kistvaen.

Dividing the tombs into three classes according to size, and counting the fallen and half buried, as well as those standing, there are 170 of the 1st or biggest, 210 of the 2nd, and 200 of the 3rd or smallest sort, a simple kist composed of slabs from 2 feet square and upwards, more or less buried in the earth, and without any enclosing walls or circle of stones remaining.

Most of the tombs in this *nekropolis* are much ruined and overgrown by jungle so that I suppose there may well have been many more than 600 tombs here, within a space 500 yards long and 300 wide. The interments have but a shallow covering of soil, sometimes less than one foot.

On excavating they were found to yield the usual sepulchral relics, except that iron weapons were very scarce or entirely absent, whilst the terracotta coffers were more abundant than in the similar tombs of Mysore. In one, a few ornamental beads, similar to some taken out of the Coorg tombs, were found lying near the remains of a human skull.

Some of the coffers, sepulchral troughs or trays, were ornamented with a chain ornament in festoons and furnished with projecting rings or loops and prominent hooks, as if to hang garlands on. Some were mere small flat oval troughs, whilst others ranged up to 4 feet long, 2 feet wide and high, and were furnished with four or five pairs of legs.

Perhaps however I need only further mention the chief novelty that struck me, and this may be no novelty to others.

Two or three Tamil letters were found scratched on a fragment of a little bowl. They seem to spell the words *saduma* or *chathum* or *chadud*; the final letter (? *m*) is very doubtful and may be intended for a terminal *d* or *t*, if that were admissible.

I have some rough notes and sketches of a few of the monuments, but had no leisure to explore further. A careful collection and close scrutiny of every fragment of the pottery (which is abundant and of the rude but antique and polished kind) would probably yield some valuable and curious information as to the habits, &c. of the tomb builders.

The locality has a bad character for being feverish and is in a very retired part of the country just above the Eastern Ghats.

The way to it lies through Chittúr and Palmanéri whence there is a good road for 15 miles to the S. W. to Baireddipalle, and thence a bridle path for 6 miles *viâ* Neilipatla to Bápanattam. The nearest name marked

on the old Indian Atlas, Sheet No. 78, is "Yerlabundah" (? Irala-rock). The Irala are the wild folk who roam the jungle in search of forest products and a free silvan life. During the rainy season some of them are said to dwell in these tombs, many of which would afford them perfect dwelling-houses, and the marks and relics of their recent occupation are to be seen frequently and unmistakably.

I know of but three or four other places where these peculiar rounded slabs are to be seen, but they will probably be found to be more common when looked for.

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*The Coins of the Mahárájahs of Kángra.*—By C. J. RODGERS.

(With a plate.)

Kángra is the name of a fort and town situated at the junction of two mountain streams which form a tributary of the Bías on its right bank ere it leaves the hills. The coins in the accompanying Plate II go by the name of Kángra coins now-a-days. But the rájahs whose coins they are were known in history by the name of the Rájahs of Trigartta, the country of the three rivers, the Rávi, Bías and Sutlej. The family of these Rájahs claims its descent from Susarma Chandra, governor of Multán at the time of the Mahábhá-rata. After the war was over they went to the hills for refuge and erected the fort of Kángra for their protection. The district under the Rájahs of Kángra seems to have been like all districts governed by such Rájahs in old unsettled times. Kángra was their mountain stronghold. The neighbouring district of Jalandhar was subject to them, and must have furnished a considerable portion of their revenue. So the Rájahs of Kángra would be known at that time as Rájahs of Jalandhar. Being of the lunar race they kept the title *Chandra* after their names.

The Indo-Scythians conquered the fort of Kángra. When Mahmúd conquered it "the genealogical roll of the Indo-Scythian princes of Kabul for sixty generations was found in the fortress of Nagarkoṭ by Mahmúd's soldiers"\* (Kángra is known in the history of India by the name of *Nagarkoṭ*). From this fact, and from the immense amount of wealth taken from Kángra by Mahmúd, General Cunningham infers that "Kángra must have belonged to the Rájahs of Kabul for several generations, and

\* General Cunningham's Archæological Report, Vol. V, for 1872-3, p. 155. The General quotes Abu Rihán's statement as contained in *Al Biruni*. I may here state that I am indebted to this report for nearly all my facts concerning the Mahárájahs of Kángra and to General Cunningham for much valuable aid generously given when I began to collect the coins drawn in the plate.

that it was their chief stronghold in which they deposited their treasures."\* Not only this, but General Cunningham thinks that the wealth accumulated in Kángra at that time consisted of the silver pieces of the Hindu Rájahs of Kabul which are even now found so plentifully throughout the Panjáb—the coins of Samanta Deva, Syalapati Deva, Bhím Deva and Khadavaya Deva.†

One fact bearing strongly on this view the General seems to have overlooked. All the coins of the Kángra Rájahs with some few rare exceptions are of the horseman type. Some are of the bull and horseman type with the names of the Rájahs over the bulls. Nay more than this, the earliest Kángra coins bear the name of Samanta Deva over the bull. That they were coined in Kángra no one will doubt who will cast his eye over the coins of the Rájahs in the plate. I once attributed the first two coins to Susarma Chandra. But a careful examination of the letters together with the results of a comparison of the letters of other coins with these, has convinced me that they are the coins of Samanta Deva.

The list of names of the Rájahs of Kángra from Susarma Chandra down to the last Rájah is of course obtainable. There is no reason for doubting its correctness. But as yet no coins have been found going further back than Prithví or Píthama to whom General Cunningham assigns the year 1330 A. D. This is an approximation only, but based on fair reasoning. Judging by the number of coins obtainable of any prince we may I think fairly infer the length of his reign. The fewness of the coins argues that the reign was short. Before Píthama I believe the coins of Samanta Deva were coined and used at Kángra. There are immense numbers of these coins found yearly in the Panjáb. Some of them have the horseman after the usual type, horse well shown and the whole body of the rider with letters on either side his head. The bull is well developed too and the name above it is generally legible. But the Kángra type of Samanta Deva, which the die-cutters of the mints of the Rájahs of Kángra seem to have slavishly adhered to, is unmistakeable, after it is once studied and known. The other well drawn coins are probably those of the Kabul or some other mint.

We must not be surprised if the coins of all the Rájahs are not obtainable. The coins of Kashmír, though very abundant, have many kings unrepresented. The coins of Chumba a neighbouring state to Kángra bear only the names of a few Rájahs, although the list of kings numbers no less than 170 sovereigns. Coining seems to have always been considered the peculiar privilege of paramount sovereigns or of independent rulers. Bearing this in mind, we need not wonder if any hiatus occurs in the lists of

\* Ibid, p. 156.

† I have seen several hundreds of these coins this year.—C. J. R.

coins as compared with that of the Rājahs. Nor must we wonder if a small number of coins turns up bearing names of rulers to whom we cannot attribute any country. Jalandhar and Kāngra must have been subject at different periods to Kashmīr as well as Kabul and perhaps to Kanauj. General Cunningham gives the following list:—\*

Accessions.	Name in list.	Name on Coins.	REMARKS.	
1330.	Prithvi.	Pithama.	Contemporary of Firoz.	
1345.	Purva.	Apurvva.		
1360.	Rupa.	Rūpa.		
1375.	Sringara.	Singāra.		
1390.	Megha.	Megha.		
1405.	Hari.	Hari.		
1420.	Karmma.	Karmma.		} Brothers.
1435.	Sansāra.	Sansāra.		
1450.	Devanga.	Avatāra.		Contemporary of Muhammad Sayid of Delhi, A. D. 1433—1446.
1465.	Narendra.	Narendra.		
1480.	Suvira.	.....	There is <i>one</i> coin known of Devanga.	
1495.	Prayaga.	.....		
1510.	Rāma.	Rāma.		
1528.	Dharmma.	Dharmma.		
1563.	Manikya.	.....		
1570.	Jaya.	.....		
1585.	Vridhhi.	.....		
1610.	Triloka.	Triloka.		
				Rebelled against Jahāngir, 1619 A. D. Triloka was the last king who coined. There are 12 more names given in the list.

A little study of Plate II will show that the coins are of several kinds. The commonest is that which has a bull on the obverse, with the name of Rājah above the bull. The reverse in every case except one has on it what is intended for an image of the horseman and horse. But as a rule there are only the legless hind-quarters together with the thigh and boot of the rider visible. The one mark on nearly all of them is the *spear* the horseman carries. First of all fixing this and remembering that the spear is carried close behind the man's thigh, to the right should come the horse's head and to the left the hind-quarters. But in reality only portions come on the coin. The die must have been as large as the silver coins of Samanta Deva which are a little broader than a four-anna piece. The boot is in some cases fully visible. But the head of the horseman is nowhere to be found. The spear has a notch on it near the bottom and a flag at the top. So it was a regular lance. Whether the man wore armour or not we can't say.

These coins are found in considerable numbers not in Kāngra itself, but in Ludhiāna, Jalandhar and Umritsur. Vast quantities of them are how-

\* Vol. V, Archæological Report, p. 152.

ever annually melted down and very soon there will be no more obtainable. Some of them may contain a very small amount of silver. It is very seldom I now meet with any in Umritsur. It is so with everything. I do not know what provision Government may be making to secure a cabinet of coins for the museums of the country. I believe no provision whatever is being made. A few private collectors are at work for their own cabinets which in the course of a few years will find their way to Europe. The coming generation will have to receive history on mere hearsay. The numismatic monuments are fast disappearing. The old Rājās in many cases are known already only by name. No records are obtainable of them. One would think that before it is too late Government should interest itself in the matter. The British Museum is far richer in the coins of India than any Museum in India. This is a mistake. If India is to be for the Indians, it is a pity to export from the country all those mementoes of former things and dynasties. Patriotism and loyalty go hand in hand with us. It would surely be wise in our Government to create a love of country in the hearts of the people of India. We want something to displace the grasping and selfishness which everywhere show themselves. The historic remains which lie round about us are not understood, or are rather misunderstood and not valued. History is taught as a matter of dates and names and is useless. Museums are collections of odd things which are to the educated and uneducated alike voiceless. The teachers of history cannot read the coins which would add interest to their lessons.

Of all the provinces of India, the Panjāb has more historic associations than any other. From the time of Darius to that of the Empress of India, the Panjāb has been an arena on which great struggles have taken place. Yet the coin cabinet of the Lahore Museum is wretchedly poor. A few Græco-Bactrian coins, a few Indo-Scythian coins and a few odds and ends with the names attached to them of the persons who presented them (!) are all that are visible to the ordinary visitor. The curator, in whose charge are the valuable coins which are always kept under lock and key, is generally engaged during the day. So visitors passing through Lahore see next to nothing of what ought to be visible at all times. There is no catalogue of the coins, and many valuable ones have been already lost. This is again a mistake. It is exactly the same at Delhi, where the coins are all in a box !!

These remarks are made not in a captious spirit, but with a real desire to direct attention to the proper use of museums and provincial coin cabinets, and also with the hope that both be made more use of in the education of the people for whom the museums were built and with whose money they are supported.

I will now proceed to make a few notes on the coins represented in Plate II.

- 14 C. J. Rodgers—*The Coins of the Mahārājahs of Kāngra*. [No. 1, No. 1. is a coin of Samanta Deva. Obverse above bull *Srī Sam*: reverse horseman.
- No. 2. is a coin of the same prince, with *Srī Samanta* above bull, reverse horseman.
- No. 3. *Pīthama*. Obverse *Srī Pīthama Chandra (Deva)*, reverse horseman.
- No. 4. Ditto Obv. ditto., rev. do.
- No. 5. Ditto. Obv. ditto., rev. do. Horse's neck ornaments shown and whole leg with pointed boot.
- No. 6. *Apurvva*. Obv. Maharajah *Srī Apurvva Chandra (Deva)*, rev. horseman plain and horse's eye visible.
- No. 7. Ditto. Obv. *Srī Apu(rvva) Chandra Deva Maharajah*, reverse horseman.
- No. 8. Ditto. Obv. *Srī Apurvva Chandra*, rev. horseman.
- No. 9. Ditto. Obv. (*Srī Apu*)*rvva Cha(ndra) Deva*, rev. horseman.
- No. 10. Ditto. Obv. bull, above which *Srī Apu(rvva)*, rev. horseman.
- No. 11. *Rupa*. Obv. bull, above which *Srī Rupa Cha(ndra)*, rev. horseman.
- No. 12. Obv. bull, above which *Srī Rupa Chandra*, rev. horseman. The horses of Nos. 10, 11 and 12, have beads round their necks.
- No. 13. *Apurvva*. Obv. (*Apurvva*) *Chandra Deva Maha(rajah)*, rev. horseman.
- No. 14. *Singāra*. Obv. *Mahārājah Srī Singāra Chandra Deva*, rev. horseman. Very poor.
- No. 15. *Megha*. Obv. *Maharajah Srī Megha Chandra Deva*, rev. horseman.
- No. 16. *Hari*. Obv. *Maharajah Srī Hari Chandra Deva*, rev. horseman. Neck ornaments and eye of horse visible.\*
- No. 17. Ditto. Obv. *Mahārājah Srī Hari Cha(ndra Deva)*. The letters of the first line are all suspended from one line drawn across the coin as in Hindu letters. Rev. horseman. Head of horse, very much deteriorated.

(This king Hari soon after his accession tumbled into a well while out hunting. He was rescued after an interval of several days had elapsed. In that

\* Since I wrote this article I have come across a coin of *Hari हरी*. The coin in the paper is of *Hari हरि*. Now in conversing a few days ago with General Cunningham on this matter I said that I was inclined to ascribe this rare coin to the king who was the brother of Karma and who was hidden in a well for some days. He quite agreed with me. The coins of the paper which as I say are found in great numbers, would then resolve themselves into the coins of the king Hari who lived after Triloka, A. D. 1630-50, whose coins those of Hari resemble in make and letters.

interval however he was accounted dead : his brother ascended the throne, and his wives mounted the funeral pile. When he came back he found Karmma reigning, and he went and took up his abode in the outskirts of his brother's dominions. I cannot account for Hari's coins being so plentiful. Out of several thousands I have seen, I have seen only one of Karmma, while at least one-fourth of the whole must have been Hari's. A Hari succeeded Triloka : perhaps these or at least some of them may be his coins although General Cunningham's list closes with Triloka.)

No. 18. *Karmma.* Obv. bull, above which Śrī Karmma, rev. horseman.

No. 19. *Sinsāra.* Obv. Śrī Sansāra Chandra Deva, rev. horseman with a large flag on which is a peculiar mark.

No. 20. *Avatāra.* Obv. Maharajah Sri Avatāra Chandra Deva, rev. horseman.

(There is one coin of Devanga, the *god-bodied*, known ; I gave one to General Cunningham.)

No. 21. *Narendra.* Obv. Maharajah Śrī Narendra Chandra Deva, rev. horseman.

No. 22. *Dharmma.* Obv., in a square area which is surrounded by a circle of dots, Dharmma Chandra ; rev., in a circle surrounded with a circle of dots, Durga Devī.

No. 23. *Triloka.* Obv. Maharajah Śrī Triloka Chandra Deva. All the lines have the letters suspended from one line going across the coin. This coin and No. 3. are alike in this matter. Rev. horseman.

No. 24. Ditto. Obv. ditto without lines, each letter separate, rev. horseman. Hinder part of leg and thigh visible and hind-quarters and legs of the horse.\*

The coins of Megha, Avatāra Karmma and Dharmma are very rare. "The coins of Rupa, Singāra, Sansāra and Narendra are rare. Those of Pithama, Apurvva, Triloka and Hari are common. The Kāngra types of Samanta Deva are very common."

\* Where the whole name is not on the coins, the part omitted is in brackets.

*Note on an Inscription found upon a stone lying near the ruins of a Masjid on Lanka Island, Wular Lake, Kashmir.*—By MAJOR H. S. JARRETT, B. S. C.\*

The inscription which is in Persian, is as follows:—

این بقعه چو بنیان فلک محکم باد مشهورترین زیب در عالم باد  
 شه زین عباد تادر و جشن کند پیوسته چوتاریخ خودش خرم باد

May this edifice be as firm as the foundations of the heavens,  
 May it be the most renowned ornament of the universe,  
 As long as the monarch Zayn Ibád holds festival therein  
 May it be like the date of his own reign,—“happy.”

As is well-known the letters of the Arabic alphabet, like those of the Hebrew or Phœnician and consequently of the Greek, are used as numerals, and the grouping of certain letters into a suitable word is frequently made to serve as a *memoria technica* among the Easterns to recall a date. In the above inscription, the numerical value of the letters in khurram (خرم happy) is 847 which is the year of the Hijra it is intended to record. This date is equivalent to A. D. 1443-4 during which Zayn-úl-Aábídín (the Zayn Ibád of the inscription—for both have the same meaning, *viz.*, ornament of the Adorers) ruled in Kashmir.

It may be interesting to glance cursorily over the events which preceded the accession of this prince from the period of the close of the last Hindu dynasty in the eleventh century of our era.

The Hindu history of that country has been discussed in a short Essay by Horace Hayman Wilson which will be found in the XVth Vol. of the Transactions of the Asiatic Society. He takes as his guide the first of the series of the Raja Tarangini, by Kalhan Pandit who commences his history with the fabulous ages and carries it down to the reign of Sangrama Deva the nephew of Didda Ráni in Sáka 949 or A. D. 1027 approaching to what Wilson considers to be the Pandit's own time Saka 1070 or A. D. 1148. The next two works of the series, *viz.*, the Rajavali of Jonah' Raja and the Sri Jaina Rája Tarangini of his pupil Sri Vara Pandit, continue the record to the accession of Fath Sháh, which Wilson places in A. H. 882, but is given by Muhammad Kazam author of the Persian history of Kashmir, as in A. H. 897 (A. D. 1491-2).

\* [A rubbing of this inscription was sent to the Society by Mr. Arch. Constable. The stone bearing the inscription is apparently a slab of black slate, well polished and finished, and measures 21½ by 12 inches and 2½ inches thick. The rubbing was taken on the 22nd September, 1874. The inscription, as shown in the rubbing, contains several inaccuracies; thus in the 2nd line زیب is wrongly spelled ذیب; the 1st and 4th lines have جو instead of چو, two dots being omitted apparently for want of space. Ed.]



In the following survey I have followed the narrative of this last mentioned historian who calls himself the son of Khayr úz-Zamán and who commenced writing his history in the year 1147 A. H. (A. D. 1734-5) during the reign of Muhammad Sháh of Hindustán. His work follows the order of the Sanskrit and is divided into three periods, the first treating purely of the Hindu dynasties, the second of the Muhammadan, and the third of the subjugation of the country by the House of Timúr, with some concluding remarks on the features and curiosities of the country.

With the second period alone is this Note concerned, and the narrative is taken up at the accession of the last Hindu Rajah Sahdeo in A. H. 705 (A. D. 1305-6). During his reign occurred an irruption of the Turks under Zulju whose ravages left for generations the traces of his incursion. Forced to leave the country in the winter after a stay of eight months, the army, betrayed by guides, perished in the mountain snows. Many of the inhabitants of the country had fled in fear of their lives, some to Tibet, others, including Rajah Sahdeo, to Kishtwárah where he remained in hopes of some day recovering his crown. His General Rám Chand who had been among the fugitives returned to Kashmir with a refugee from Tibet named Rihjú to whom in former times he had accorded his protection. The country was now in a state of anarchy, each petty chief asserting his own independence. Rám Chand and his people occupied the fortress of Lár. Rihjú\* or Rinjú (for the name is indistinctly written) seeing his opportunity gathered a few followers round him, made himself master by stratagem, of Lár, put Rám Chand to death and took his family prisoners. He now (A. H. 725 A. D. 1324) openly assumed the sovereignty, married the daughter of Rám Chand and won to his side the son of that Chief by granting him the government of Lár and Tibet and appointing him to a high command in the army. Though Buddhism was nominally the prevailing religion at this time, the country was distracted by the dissensions of sectaries, whose hostile and contending claims to religious truth perplexed the inquirer dissatisfied with the national religion. Such an inquirer was Rájá Rinjú, who after much perturbation of spirits and constant prayer, was led by divine inspiration—so runs the simple narrative—to watch a Moslem at his devotions. He saw, admired and believed, and soon led his court and people to embrace the Muhammadan faith. This monarch died in A. H. 727, after a reign of a little more than two years and a half, and the ruins of a once noble alms-house and a splendid mosque attest his reverence for the faith of his adoption. His widow Kotahrini† married Udayn Deo, brother of the last Rájá, who continued with his consort to carry on the government till the year A. H. 742, when he died. One of the Generals of the army coming

\* The Rájataranginí has the name Rinchan.

† In the Rájataranginí Kotah Rani.

of a royal stock, named Shahmír who, settling in Kashmír in the reign of Sahdeo as a merchant, had fast risen to place and power, now thought himself strong enough to marry the twice-widowed queen and to usurp the crown. She refused his overtures, but he made himself master of her person, and she was forced to yield a reluctant consent to the espousals. She, however, slew herself during the marriage festival and Shahmír now became undisputed master of the crown (A. H. 743 A. D. 1342-3) and assumed the title of Sultán Shams-u'd-dín. He died in 747 A. H. (A. D. 1346-7) leaving two sons, Jamshíd and Ali Sher.

The reign of Jamshíd was short. He was defeated and slain in battle by his brother who succeeded him in 748 under the title of Alá-u'd-dín.

Alá-ud-dín's rule of ten years is marked by no important event. He died in A. H. 748 (A. D. 1356-8) and was buried at Alá-u'd-dínpúra.

His son Shaháb-u'd-dín succeeded to the crown on the death of his father. He employed his energies in clearing the country of rebels and marauders, and annexed Pakli, Dantaur and the tract, called the Sawád Kabír, to the crown. He wrested Tibet from the ruler of Káshghar and ventured to march towards India, then ruled by Firúz Sháh. After a campaign in which the victory was with neither party, peace was concluded on these conditions that the country from Sirhind to Kashmír should appertain to Shaháb-'ud-dín, while all to the eastward should acknowledge the sovereignty of Firúz Sháh. Muhammad Ázám\* notes with surprise that this fact, which he says is mentioned by many historians, is left unnoticed by the author of the *Tárikh-i-Firuz Sháhi*. I may add that it is equally omitted by Elphinstone. (A. H. 758, A. D. 1356-7.)

On his return to Kashmír, he built the capital of Shaháb-u'd-dínpúra of which now not a trace but the ruins of a mosque remain, and he destroyed the large idol temple at Bijárah.† In the year A. H. 778 (A. D. 1376-7) he died.

Ḳuṭb-úd-dín his brother succeeded him in A. H. 780 (A. D. 1378-9). He ruled with justice and moderation and was celebrated as a scholar and a poet. Ḳuṭb-úd-dínpúra commemorated his name and the metropolis of his kingdom. He died in A. H. 796 after a reign of sixteen years. During his time occurred the advent to the court of Sayyid Ali Hamadání, the sixteenth in direct descent from Ali-b-Abi-Tálib, the son-in-law of Muhammad. He was revered for his sanctity and eminent virtues, and his influence guided the counsels of the monarch. The Sayyid bestowed on him his own cap which Ḳuṭb-úd-dín wore in the royal crown. It is feigned that

\* His son Muhammad Aslam, who is the author of the History of Kashmír entitled the *Gohar-i Aálam* and has made considerable additions to his father's work, goes so far as to say that the conquests of Shahab-úd-dín were carried northwards beyond the Oxus and southwards beyond Lahore.

† Called also Bihárah or Bij Bihárah.

its efficacy secured the throne to the monarch's successors until the reign of Faṭḥ Sháh who directed it to be buried with him, from which period dates the decline of the dynasty.

His son Sultán Sikandar, better known by the title of the Iconoclast from the number of idols he destroyed, assumed the sovereignty in A. H. 796 (A. D. 1393-4). During his reign, the rapid advance of Timúr on his march to India, induced Sikandar to conciliate the Tartar conqueror by despatching his son Sháhi Khán known afterwards as Zayn-u'l Aábidín to his court with presents and friendly letters. Timúr gratified by this conduct, left him in possession of his territory but detained Sháhi Khán in Samarkand which he never left until Timúr's death. Sikandar after a reign of twenty-five years and nine months, died in A. H. 822. A superb mosque which contained 372 columns, each 40 cubits in height and 6 in circumference, was begun and completed by him in the space of three years under the direction of two famous architects Khwajah Sudr-úd-dín Khorasáni, and Sayyid Muḥammad Nuristáni. To his piety was also owing the erection of the great mosque of Bijárah, and with the exception of the rattle of the royal kettle-drums, no profane music was permitted to disturb the austere tranquillity of his capital. Through his munificence the walls of the romantic gardens of Shalimar were extended as far as the Parganah of Phág and their stability was assured or blessed by the burial beneath their foundations of all the Hindu works that could be collected. As these treated either of idolatrous rites, astrology or history that was fabulous, they were considered by the monarch as condign objects for destruction.

He was succeeded by his son Ali who reigned but six years and nine months. This prince bent upon performing the pilgrimage to Mecca resigned his kingdom in A. H. 828 into the hands of his famous brother Zayn ul Aábidín and set out on his journey. A. H. 822. (A. D. 1419).

A. H. 828. (A. D. 1424-5.) Zayn ul Aábidín was noted early in life for his abilities. He employed the time he had spent in Samarkand in adding to his store of knowledge, and on his return to his country he brought with him a number of artificers, such as paper-makers, book-binders, carpet-weavers, saddlers and others to improve the industries of his own land. His brother Ali having reached the territory of his father-in-law the Jammu Chief, was persuaded by him to abandon his pilgrimage and resume his sovereignty. Returning therefore with an army, he was met by his brother Zayn ul Aábidín, who gave him battle, defeated him and placed him in confinement wherein he shortly after died. The powerful faction of the Gurjis who in the time of his father possessed great influence in state affairs, and who favoured the cause of his brother, was exterminated by him at Naushahr, at which palace he erected a place for his own residence.

His time was now spent in promoting the prosperity of his country

and in repairing the ravages of the irruption of the Turks under Zulju which the lapse of more than a century had not yet been able to efface. He was a liberal patron of men of letters and encouraged the progress of the arts, especially favouring the artificers whom he had introduced from Samarkand. He travelled much over his dominions and his Hindu and Muhammadan subjects lived at peace with each other undisturbed by religious dissensions, which if they arose were amicably settled by punchayets at which the monarch himself would preside. This conduct gained for him the title of the Great King.

According to tradition in the vicinity of the Wular lake once stood a city of which the Rájá was Sudrasen. By reason of the enormity of his crimes, the waters of the lake rose and drowned him and his subjects. It was said that during the winter months, at low water, the ruins of a submerged idol temple might be seen rising from the lake. Zayn úl Aábidín constructed a spacious barge which he sank in the lake and upon which he laid a foundation of bricks and stones till it rose high enough to be level with the water. Upon this he erected a mosque and other buildings and gave the islet the name of Lanka. The expense of the work was defrayed by the fortunate discovery of two idols of solid gold which had been brought up from the lake by divers. On the completion of Lanka the king ordered a great festival to be held wherein great sums were distributed amongst the poor. Verses were written by the poets to commemorate this event, and among these the inscription under notice by Ahmad Allámah Kashmíri was engraved upon a stone and placed above the Mihráb or sanctuary of the mosque. This Ahmad Kashmíri was the author of the Núr-náma, a Persian translation made in the time of Zayn úl Aábidín of an ancient History of Kashmir in the Kashmirian language by Shaikh Nur-úd-dín Wali. His translation was made use of by Muhammad Aslam the son of Muhammad Aázam, in amending the omissions of his father's History. Mention of the slab with its inscription is made by Muhammad Aázam who gives a faithful transcript of the verses Muhammad Aslam states that he visited Lanka in 1167 A. H. (A. D. 1753) and observing the inscription carried it in his memory and records it in his work. His second line runs thus—

مشهور به زب و زین در عالم باد

which shows that either his memory failed him or he was unable to decipher the line more correctly given by his father.

The further history of Zayn úl Aábidín it is perhaps unnecessary to record. He died in A. H. 880 (A. D. 1475) and was succeeded by his son Hydar Sháh. His tomb may still be seen below the Zayna Kadal, the fourth of the thirteen bridges that span the river Jhelam in its course through the valley of Kashmir.

*Coins of the Sunga or Mitra Dynasty, found near Rámanagar or Ahichhatra, the ancient Capital of North Panchála, in Rohilkhand:—the property of H. RIVETT-CARNAC, ESQ., C. I. E., F. S. A., &c. Described by A. C. CARLLEYLE, of the Archæological Survey of India.*

(With a Plate.)

The great ruined site of *Ahichhatra*, the ancient capital of North Panchála and now known as *Rámanagar*, has of late been yielding a plentiful supply of the coins of the Sunga or Mitra dynasty. Mr. H. Rivett-Carnac has been so fortunate as to procure a considerable number and variety of these coins from that find-spot, and he kindly placed them in my hands for examination and identification.

The fact of so many coins of this dynasty having been found so far to the north-west from their proper capital city, Pushpapura (or Pataliputra), may perhaps be held to be a proof of the wide extent of their sway. While making some excavations at Bhuila, the site of the ancient city of Kapilavastu, in the Basti district, I obtained a considerable number (probably about a hundred) of the coins of the Mitras, dug newly from the soil, in deep excavations, while I was present on the spot; they were mostly of Agni Mitra and Indra Mitra, with a few of other later kings of this dynasty. These coins were mostly of small size; but the coins obtained by Mr. Rivett-Carnac, from Rámanagar, are mostly of the largest size, with three or four only of the smallest size.

About one hundred and ten of these coins, belonging to Mr. Rivett-Carnac, have passed through my hands; and of these, several bear names of kings which are either new, or of rare occurrence, such, for instance, as *Bhadraghosa*, *Phaguni-mitra*, *Surya-mitra*,\* and *Anu-mitra*,—besides several coins of *Bhánú-mitra*, which were already known. The most numerous coins were those of Bhúmi-mitra, and the next numerous were those of Phaguni-mitra,—after whom, in the descending scale of number, followed Agni-mitra, Bhánu-mitra, Surya-mitra, Bhadra-ghosa and Indra-mitra; with also a very few, from other localities, of the later kings, whose coins are of quite a different type, such as Vijaya-mitra, Jaya-mitra, Satya-mitra and Saya-mitra.

From the numerical proportion in which the coins of various kings are found in a hoard, we can generally make a pretty good guess as to who were the earliest, and who the latest, of the series. Thus, the king of

\* [This name was at first read *Srayan-mitra* by the author. General A. Cunningham first suggested the true reading *Suya* or *Surya-mitra*; see Proceedings As. Soc. Beng., January 1880; see also below p. 28, Ed.]

whom the greatest number of coins are found in a hoard, may be accepted as being either the latest, or the contemporary king, of the dynasty, at the time when the hoard was buried or lost; while the king of whom the fewest and most worn coins are found may be accepted as the earliest, in point of time, of the series. But a similar numerical proportion of coins of different kings may, sometimes, also have been brought about by accidental circumstances; and therefore we must, in all cases, be guided by the older or later forms of the alphabetic characters, which appear in the legends on the coins.

But if we follow the rule enunciated above, in a general sense, with sufficient judgment and discrimination, we may apply it in the present case. Thus, as the coins of Bhúmi-mitra are the most numerous, in proportion, in the hoard found at Rámanagar, we may suppose that he was the latest king of the dynasty, at the time when the hoard was buried, and that the hoard was buried during his reign.

In like manner, as the coins of Phaguni-mitra are the next in point of number, to those of Bhúmi-mitra,—or in fact nearly equalling them,—and were, at the same time, far in excess of the coins of any of the other kings, we may conclude that Phalguni-mitra, was the immediate predecessor of Bhúmi-mitra.

The coins of Agni-mitra and Bhánu-mitra follow next behind, in numerical proportion. But as the coins of these two kings are nearly equal in number, it becomes difficult to decide which of them was prior to the other. There is, however, one marked distinction about the coins of Bhánu-mitra and that is, that the central symbol, of the three symbols above the name, is always punched into the coin, with a square punch; and the symbol in this square punch-mark depression is generally a repetition of the raised symbol to the right of it; while on the coins of other kings, the central symbol is generally different from either of the other two. Now this central square punch-mark depression I have also found on a few coins of *Surya-mitra*, who, from the greater rareness of his coins and the rather more antique form of the alphabetic characters of the legend, I consider to have been a predecessor of Bhánu-mitra,—and from these two kings' coins having the square punch-marked depression in common, I should say that Bhánu-mitra must have been the immediate successor of *Súrya-mitra*. Agni-mitra must therefore be of later date, and should probably follow immediately after Bhánu-mitra.

The coins of Bhadra-ghosa are the fewest and the most scarce of all. And the alphabetic characters of the legend, are of an older type than on any of the other coins, and more nearly approach the forms of the old Laṭ character of Aṣoka. Moreover the large coins of Bhadra-ghosa are very much worn, so much so that the legend is blurred and indistinct.

But Mr. Rivett-Carnac has one most beautiful little coin of Bhadraghosa, of very small size, on which the legend is as clear and distinct as possible,—really wonderfully clear for such a small coin.

The occurrence of only one undoubted coin,—besides one doubtful one,—of Indra-mitra, in this collection, is somewhat puzzling to me,—because, from the style of the alphabetic characters on his coins, I do not think they are so ancient as those of some of the other kings; and I would be inclined to place him certainly after Agni-mitra. The only reason that I can offer for this comparative (and perhaps only apparent or local) scarceness of the coins of Indra-mitra, is that his reign may have been a short one, and either that his residence was in some different part of the country, or that the distribution of his coinage was partial. I did not find that the coins of Indra-mitra were any more scarce than those of other kings, among the coins of this dynasty which I obtained at Bhuila (Kapi-lavastu).

But, in the present case of the Rámanagar coins, I think there may be another way of accounting for this, probably merely temporary or local, scarceness of Indra-mitra's coins. I would suggest that Indra-mitra was the son and immediate successor of Bhúmi-mitra, and that the Rámanagar hoard was buried immediately after the death of Bhúmi-mitra, and in the early part of the first year of the reign of Indra-mitra. This would account for the plentifulness of Bhúmi-mitra's coins, and the scarceness of Indra-mitra's, in the Rámanagar find.

I will now give a list of those Mitra kings whose names have been in any way authenticated; and I will place them in the chronological order in which I think they should be placed; and opposite to the names of those of whom coins were found in the Rámanagar hoard, I will place the number of each found, respectively.

Initial Date.	Names of Kings.	Number of <i>Coins</i> found at Rámanagar.
B. C. 178.	Pushpamitra, .....	(None.)
	Bhadraghosa, .....	5
	Surya-mitra, .....	7
	Bhánu-mitra, .....	10
	Agni-mitra, .....	11
	Anu-mitra, .....	1
	Phaguni-mitra, .....	28
	Bhúmi-mitra, .....	34
	Indra-mitra, .....	1, <i>certain.</i> 1, <i>doubtful.</i>

I will now proceed to give a detailed description of the coins themselves, see Plate III.

I.—BHADRAGHOSA.

1. Coin, very small.

*Obverse.*

A square depression, caused by a die, containing the legend, with three symbols above it,—Bodhi Tree, Linga, and Serpents.

*Legend*—Bhadraghosasa.

*Reverse.*

A curious dumpy figure, as broad as long, of Buddha standing teaching.

2. Coin, large.

*Obverse.* A square depression, containing the Legend, with three symbols above it.

*Legend*—Bhadraghosasa.

(Note.—The three symbols above the legend are, to the left a Bodhi Tree standing on a square base or in a square railing;—in the centre, a linga guarded by two serpents (Nágs) which rise up on each side of it—; to the right, two serpents intertwined, forming a circular knot in the centre, with their two heads extending out, right and left, above, and their two tails extending out, right and left, below. This same description will apply to all other coins bearing these symbols.)

*Reverse.*

Two objects, not distinct.

II.—SURYA-MITRA.

3. Coin, middle-sized, pretty large.

*Obverse.*

In a square depression, the legend, with three symbols above it.

*Legend*—Surya-mitrassa.

*Symbols* above legend :—To left, Bodhi Tree, as before. To right, two serpents intertwined, as before. In centre, a square punch-marked depression, containing a symbol, which appears to be composed of several snakes intertwined.

*Reverse.*

Device indistinct. (But, on another coin, it appears to be the symbol of Sangha with the Buddhist Wheel of the Law, below it.)

4. Coin same size as the former.

*Obverse.*

In a square depression, the legend below, with three symbols above it.

*Legend*—Surya-mitrassa.



*Symbols* above the legend:—To left, Bodhi Tree, as before. To right, two serpents intertwined, as before. In centre, linga guarded by two serpents (Nágs) whose heads rise above it on each side.

*Reverse.*

Apparently the symbol of Sangha, with the Wheel of the Law of Buddha. (This was referred to, in describing the previous coin, the reverse of which is defaced.)

III.—BHÁNU-MITRA.

5. Coin pretty large.

*Obverse.*

In a square depression, the legend below, with three symbols above it.

*Legend*—Bhánu-mitrása.

(Sometimes the last part of the name appears to be *mitrasa*.)

*Symbols*, above the legend. To the left, the Bodhi Tree, as before. To the right, two serpents intertwined, as before. In the centre, a square punch-mark depression, containing a symbol composed of four snakes intertwined, and forming a squarish shaped figure.

*Reverse.*

The symbol of Sangha surmounted by the Wheel of the Law of Buddha. But it is possible that it may be intended for a figure of the Sun (*Bhánu*) placed above a pedestal.

IV.—AGNI-MITRA.

6. Coin, large.

*Obverse.*

In a square depression, the legend below, with three symbols above it.

*Legend*.—Agimitása.

*Symbols* above legend. To left, Bodhi Tree, as before. To right, two serpents intertwined, as before. In centre, Linga, guarded by two serpents (Nágs), one on each side.

*Reverse.*

Figure of Buddha standing, with right hand raised, and rays radiating from his head. He stands on a Buddhist Railing, between two trees.

7. Coin, middle-sized, rather small.\*

*Obverse.*

*Legend and symbols* the same as in the preceding.

*Reverse.*

Buddha standing, with right hand raised, and flames ascending from

\* [This is a mistake; coin No. 7 in the Plate is not one of Agni-mitra, but of Bhúmi-mitra, like No. 10. By a mischance the wrong coin seems to have been sent to be figured; Ed.]

his head and shoulders. He stands on a sort of ornamental pedestal, probably representing the Lotus.

V.—ANU-MITRA.

8. Coin, very small.

*Obverse.*

Surface of obverse of coin, concavely depressed. Legend in a line below. Three symbols in a line above.

*Legend*—Anu-mitasa.

*Symbols*, the same as on the coins of Agni-mitra.

*Reverse.*

A Buddhist Railing. Above it, a large round ball, surrounded by a circle of dots. On each side below, a small round ball, with a curved semi-circular figure below it, the concavity of the curve being turned downwards; these two latter symbols resemble in shape the later modified old Indian form of the letter "T", just preceding the Gupta period. I think the central symbol above (namely the round ball surrounded by a circle of dots) may be intended to represent the Sun.

VI.—PHAGUNI-MITRA.

9. Coin large.

In a square depression, the legend below, with three symbols above it.

*Legend*—Phagúni-mitrasa.

*Symbols*, above the legend. To left, Bodhi Tree standing on a square pedestal. To right, two serpents intertwined. In centre, a Linga, with two serpents (Nágs) twined round it, their hoods raised up on each side of it.

*Reverse.*

Buddha standing on a lotus, with a canopy over his head.

VII.—BHÚMI-MITRA.

10. Coin, large.

*Obverse.*

In a square depression, legend in one line below, with three symbols in a line above.

*Legend*—Bhúmi-mitasa.

*Symbols*, Bodhi Tree, Linga with serpents (Nágs), and two serpents intertwined in a knot,—as on the coins of Phaguni-mitra and Agni-mitra.

*Reverse.*

Buddha standing between two trees, on a Buddhist Railing. Rays or flames ascend from the head of Buddha.

## VIII.—INDRA-MITRA.

11. Coin, rather small.

*Obverse.*

Legend and three symbols in a square depression, as on the other coins.

*Legend.*—Indra-mitasa.

*Symbols,* the same as on the two preceding coins.

*Reverse.*

A squat figure of Buddha, above a Buddhist Railing.

(*Note* :—The legend on some other coins of Indra-mitra, which I have seen, appeared to read simply as “Inda-mitasa,” while on a few it seemed to have the still more mutilated form of “Ida-mitasa.”)

## SUPPLEMENTARY NOTE.

Since my Paper on the coins of the Sunga or Mitra Dynasty was forwarded to the Asiatic Society of Bengal, I have seen in the collection of Mr. Rivett-Carnac, another apparently unique coin of a king of this dynasty called *Ayu-mitra*, which I believe to be a new name. This king must have been one of the latest of the dynasty, as the letters of the legend belong to the later Gupta period.

*Description.*

Coin, round, middle sized, copper.

*Obverse.* Bull.

*Inscription,* underneath, A-yu mi-ta-sa.

*Reverse.* Apparently a Peacock and Palm-tree ?

The legend on this coin is clearly and distinctly just as I have given it above, and there can not be any doubt whatever about it. This coin therefore must not be confounded with the common, though similar, coins of *Saya-mitra*, with which I am well acquainted.

In order to complete the list, I may mention that I have heard from General Cunningham that he has a coin of a king of this Dynasty named *Dhruva-mitra*. But as I have not seen General Cunningham's coin and therefore I do not know its age, I can not tell where to place *Dhruva-mitra* in the line of succession. But no doubt General Cunningham will describe the coin himself.

With the sole exception of the last named king, I think I feel pretty certain of the place which the rest of the Mitra kings respectively should

occupy in the order of succession. We now know of fourteen kings of this dynasty, and I would place them as follows :—

- |                   |                   |
|-------------------|-------------------|
| 1. Pushpa-mitra.  | 8. Bhûmi-mitra.   |
| 2. Bhadrachosa.   | 9. Indra-mitra.   |
| 3. Surya-mitra.   | 10. Vijaya-mitra. |
| 4. Anu-mitra.     | 11. Satya-mitra.  |
| 5. Bhânu-mitra.   | 12. Saya-mitra.   |
| 6. Agni-mitra.    | 13. Ayu-mitra.    |
| 7. Phâguni-mitra. |                   |

The fourteenth king would be General Cunningham's Dhruva-mitra ; but not having seen the coin, I can not tell in what position to place him.

Of course I have never seen any coin of Pushpa-mitra ; but he is nevertheless sufficiently authenticated otherwise ; but I have seen and examined coins of all the remaining twelve kings.

With regard to the name *Surya-mitra*, I may now state that I have since seen several other coins of this king, and that the result of my examination of these other and more perfect specimens is that the name must be read *Suya* or *Surya Mitra* ; and in this I agree with General Cunningham. On most of these coins the name appears to read as *Suya*, with a dot (anuswara ?) above the *y* ; but on at least one coin, the name reads clearly as *Surya*, the *repha* appearing quite plainly on the top of the *y*.

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*Coins of Ghiás-ud-din and Mu'az-ud-din bin Sâm.*—By C. R. STÜLPNAGEL,

M. B. A. S.

(With a Plate.)

The extracts from the *Tabakât-i-Násirí* made by Sir Henry Elliot in his *History of India* contain but little information concerning Ghiás-ud-dín of Ghór, nor is this want of details much to be regretted except for the fact that the coins obtained hitherto generally join the name of this ruler with that of his younger brother Mu'az-ud-dín who is looked upon as the first Pathán king of Delhi. It is stated that when 'Alá-ud-dín Husain, surnamed Jehánsoz, ascended the throne of Fíróz-kóh, he imprisoned his two nephews Ghiás-ud-dín Muhammad Sâm and Mu'az-ud-dín Muhammad Sâm in a fort of Wabíristán, and settled an allowance for their maintenance. He took Ghazní, but did not make it his permanent residence. After his death he was succeeded by his son Sultán Saif-ud-dín. This king released the two

princes, his cousins, of whom Ghiás-ud-dín dwelt peacefully at Firoz-koh, taking service with the Sultán Saif-ud-dín, whereas the more adventurous Prince Mu'az-ud-dín proceeded to Bámián and there found employment under his uncle Fakhr-ud-dín Mas'úd. But when Ghiás-ud-dín succeeded to the throne of Ghór after Saif-ud-dín's tragical death, Fakhr-ud-dín instigated his nephew Mu'az-ud-dín to bestir himself and likewise acquire a regal position. The latter accordingly started in all haste to his brother's court where he was received in a friendly spirit. He served Ghiás-ud-dín one year, after which the countries of Kasr-kajúrán and Istiya, between Herat and Ghazní, were assigned to him; and at a subsequent period he obtained possession of the city Takínábád, specially noted as the largest town in the Garmsír. In 569 A. H. (1173 A. D.) Sultán Ghiás-ud-dín conquered the town of Ghazní, but returned to Ghór after placing his brother Mu'az-ud-dín upon the throne, who secured in addition the territories of Ghazní and the country round about in 570 A. H. In the third year after this time, Mu'az-ud-dín led his forces to Multán, and henceforth his history becomes merged in that of India. Of Sultán Ghiás-ud-dín scarcely anything more is known, but it should be remembered in his favour that, instead of getting his brother murdered, he treated him with the greatest kindness, and always associated his name with his own on the coins of the realm. Ghiás-ud-dín died at Herát in 599, and Mu'az-ud-dín was murdered by the Gakkars at Rohtak in 602 A. H.

Coins in the joint names of Ghiás-ud-dín and Mu'az-ud-dín have already been published by Mr. Edward Thomas in his "Chronicles of the Pathán Kings of Delhi," two of which are of gold and two of silver, the latter being engraved in the first plate and numbered one and two, the latter being identical with the one described by Wilson in the *Ariana Antiqua*, pl. XX, 29. I have lately acquired eight specimens of dirhems of these Ghorí brothers, all of them different from those already described. Of these, three are similar to No. 1, pl. I of Mr. Thomas's book; see Plate IV. They are of silver weighing, on an average, 74 grains and have their legends arranged in three concentric circles, the patronymic occupying the centre. The first, however, differs in this that the outer circle containing the date (597) is found in the *obverse* with the name and title of Ghiás-ud-dín, and not on the reverse as on Mr. Thomas's coin. I thought it at first just possible that the engraver might have committed a mistake, and changed the outer circles of the obverse and reverse, but such a supposition is unlikely from the transcript of the coin in the body of the book, which clearly shows that the date belongs to the reverse. Moreover it is totally immaterial on which side the date is actually placed, and it is actually found on the reverse together with Mu'az-ud-dín's name, on two of the coins described in the

sequel of this paper. Although the margins are both a little abraded, they can with ease be supplied from the next coin. I may, however, remark that this coin could not have contained the name of the month of the year, as there is not sufficient space for its insertion.

The following is the transcript :

Date 597.

*Obverse.*

|                                               |                |
|-----------------------------------------------|----------------|
| ••• الدرهم في ••• سنة سبع وتسعين و خمسين مائة | First circle.  |
| لا اله الا الله محمد رسول الله السلطان الاعظم | Second circle. |
| غياث الدنيا و الدين ابو الفتح                 | Third circle.  |
| محمد بن سام                                   | Centre.        |

*Reverse.*

|                                                     |                |
|-----------------------------------------------------|----------------|
| ••• هو الزئى رسل رسوله بالهدى و دين الحق ليظهره ••• | First circle.  |
| الناصر لدين الله السلطان المعظم معز                 | Second circle. |
| الدنيا و الدين ابو المظفر                           | Third circle.  |
| محمد بن سام                                         | Centre.        |

The last two of the three coins with concentric inscriptions referred to above, differ from the first in this that they have the arrangement of date just as in the Thomas's pl. I, No. 1; *viz.*, the date (596) is placed on the reverse containing the name of Mu'az-ud-dín. The size, however, is smaller, and the letters less bold. The *Ariana Antiqua*, pl. XX, 85 is probably a similar coin to my two; but as Wilson, owing to the worn condition of the coin in his possession, was unable to describe it, I include it in this paper. The outer circle of the obverse contains the Súrah common to all Ghori coins; the second has half the Kalima, which is afterwards continued in the second circle of the reverse; and the third circle and centre show the names and titles of Ghiás-ud-dín. The reverse has in the first or marginal circle the place of mintage and the month and year in which the dirhem was struck. Part of the second and the third circles and the centre, like those of the obverse, contain the titles and names, but of Mu'az-ud-dín.

Ghazni, month Zi-ul-hajja, A. H. 596.

*Obverse.*

|                                                                |               |
|----------------------------------------------------------------|---------------|
| هو الزئى رسل رسوله بالهدى و دين الحق ليظهره عامى الدين كله ولو | First circle. |
| كوة المشركون                                                   |               |

|                                                 |                |
|-------------------------------------------------|----------------|
| لا اله الا الله الناصر لدين الله السلطان الاعظم | Second circle. |
| غياث الدنيا و الدين ابو الفتح                   | Third circle.  |
| محمد بن سام                                     | Centre.        |

*Reverse*

|                                                     |                |
|-----------------------------------------------------|----------------|
| ضرب هذا درهم في بلدة غزنة في ذى الحجة سنة ست وتسعين | First circle.  |
| خمس مائة                                            |                |
| محمد رسول الله السلطان المعظم معز                   | Second circle. |
| ادنيا و الدين ابو المظفر                            | Third circle.  |
| محمد بن سام                                         | Centre.        |

The other five coins have never been described before, as far as I know, and are quite of a new type. They were obtained from an itinerant Kabuli who was very shy in speaking of the place where they had been originally procured; but as in his conversation he said that he had been in Ghazni and Kabul, and had lately come to Lahore by way of Jellalabad, it may be reasonably presumed that they were not found in the Panjáb, but in the Kabul valley, or perhaps in or near Ghazni. All of these coins are likewise binominal. The weight is between 56 and 79 grains. The area on either side is a square composed of double lines, with the inscription arranged in five lines. The enclosing margin is of course in four sections. It is bounded by double circles. The margins are partially abraded, but fortunately one coin is sufficiently well preserved and the following inscription can be therefore made out with accuracy :

Dates 597 and 598.

*Obverse.*

Area :—

لا اله الا الله

محمد رسول الله

السلطان الاعظم

غياث الدنيا و الدين

ابو الفتح محمد بن سام

Margin :— هو الزئى رسل رسوله بالهدى و دين الحق ليظهره على الدين كله

*Reverse*

Area :—

الناصر لدين الله

السلطان المعظم

معز الدنيا و

الدين ابو المظفر

محمد بن سام

Margin :— ضرب هذا الدرهم في شهر سنة ثمان وتسعين وخمس مائة

Of these five dirhems, four have the date on the reverse together with the name of Mu'az-ud-dín, and one on the obverse. None contains the place of mintage.

All these coins, bearing evidence to the joint rule of the two brothers, are dated 596, 597 and 598 A. H., and must have been issued towards the end of their reigns, for Ghiás-ud-dín died in 599 and his brother three years afterwards. Comparing the titles of the two sons of Bahá-ud-dín Sâm, the elder, Ghiás-ud-dín, is always called "ul'azam" the greatest, Sultán, ul nasr-l-dín illah and abúl fath, whereas to his younger brother are applied mu'azm, "great," Sultán, nasr-l-dín and abúl muzaf. It was only after the death of Ghiás-ud-dín that Mu'az-ud-dín called himself by the higher sounding title of 'azam.



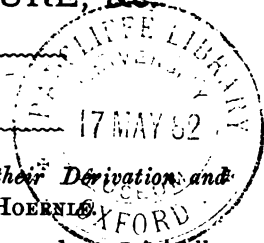
# JOURNAL

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## ASIATIC SOCIETY OF BENGAL.

Part I.—HISTORY, LITERATURE, &c.

No. II.—1880.



*A Collection of Hindí Roots, with Remarks on their Derivation and Classification.*—By DR. A. F. RUDOLF HOERNLE.

This Collection was prepared by me some years ago and was originally intended to form part of my Comparative Grammar of the Gauḍian Languages, and to illustrate the Chapter on Roots. The present introductory remarks give the substance of that chapter.

The Hindí, like any other language, possesses roots. By this term I here mean the constant element in any series of sense-related words. Thus in the Hindí words *bol-í* "speech," *bol-áhaṭ* "calling," *bol-aná* "speaking," *bol-á* "spoken," *bol-ai* "he speaks," &c. the constant element *bol* is the root; the remainder are suffixes and vary according to the meaning which is to be expressed by means of the root.

A root may be determined in Hindí, or for that matter in any Gauḍian language, by detaching the suffix of the 3rd person singular present *ai* (or *e*) from the word, when the remainder will be the root. Thus in *bol-ai* "he speaks," *kar-ai* "he does," *bújh-ai* "he understands," *bol*, *kar* and *bújh* are the roots respectively.

For comparing Hindí roots with Sanskrit, this is the most convenient rule. For a large number of Hindí roots are not derived from the pure Sanskrit root, but from that modified form of it, which is confined to the present tense (or the so-called special tenses generally). Thus the Sanskrit root *budh* "understands," takes the form *budhḡa* in the present tense, whence arises the Hindí form *bújh*. From the Sanskrit *budh* comes the 3rd person sing. present *budhyate*, in Hindí *bújhai*; but from it comes also the participle future passive *boddhavya* "to be understood"; in Eastern Hindí this form is *bújhab* or *bujhib*, Western Hindí

*bújhibau*, which transliterated into Sanskrit would be *budhyitavya*. This shows that in Hindí the form *bújh* acts as a root, precisely as *budh* does in Sanskrit.

Putting aside mere phonetic differences, as in the Hindí *sikh* or *síkh*, Maráthí *śik* "learn," Eastern Hindí *char*, Western Hindí *chal* "walk," the Gaudian languages differ very little with regard to their roots. There are, however, a few exceptional cases of roots which are confined to some particular Gaudian language. Thus "see" is in Sindhí *pas*, Maráthí *páh*, but in Hindí *dis* or *dekh*, the Sanskrit *paś*, *preksh* and *dr̥iṣ*; again "come" is in Sindhí *ach*, Bangálí *āis* or *ās*, but in Hindí *āv* or *á*, the Sanskrit *āgachh* and *āyá*.

Roots, as a rule, do not undergo any change, when entering into conjunction with suffixes; except in the formation of the Causal Verb, in which case a long vowel is always shortened; thus *bol-aná* "to speak," but *bul-áná* "to call"; *chhoṛ-aná* "to loose," but *chhur-áná* "to cause to loose"; *ghúm-aná* "to turn," but *ghüm-áná* "to cause to turn"; *pi-ná* "to drink," but *pī-láná* "to cause to drink", &c. There are, however, a few exceptional cases of changeable roots. These are *kar* "do," *dhar* "place," *já* "go," *le* "take," *de* "give," *mar* "die." These roots assume a considerably different form in the formation of the past participle and past tense; viz., the first five become *ka* or *ki*, *dha* or *dhi*, *ga* or *gi*, *la* or *li*, *da* or *di* respectively, and *mar* becomes *mu*. The regular, unchanged forms, however, also occur, and generally these three forms are peculiar to some one or other of the Hindí dialects. Thus the High Hindí has the past participle *ki-yá* "done," Eastern Hindí *ka-il* or *ka-yal*, but Western Hindí *kar-au*; Eastern Hindí also has the radical form *ki* in *ki-his* "he did," *ki-hin* "they did."\* So also High Hindí *mu-á* or *mar-á* "dead," Eastern Hindí *mu-il* or *mu-al*.

Roots, when determined as above explained, may be divided into two classes, primary and secondary. To the former class belong all those roots, the originals of which, though sometimes more or less disguised by subsequent phonetic modifications, exist in Sanskrit. Secondary roots are those, which have no Sanskrit original, though their origin can be traced to Sanskrit elements. Thus the Hindí root *khá* "eat" is a primary one; for its original is the Sanskrit root *khád*; but the Hindí root *paiṣh* "enter" is secondary; for there is no Sanskrit root *pravishṭ*, though there is a Sanskrit participle *pravishṭa* "entered" (of the root *pra-viṣ*), from which it is derived.

Among the primary roots there are a few which have suffered no phonetic modification. Thus, the common root *chal* "walk"; W. H. *chalai*, H. H. *chale*, Skr. *chalati*, "he walks." (The E. H., however, has *charai*). But most of them have passed through some sort of phonetic

\* *h* is a euphonic insertion, for the sake of assimilation to *lih-is* "he took", *lih-in* "they took".

change. These changes are of seven kinds, of which sometimes one, sometimes several have affected the same root. They are—

1. Simple *phonetic permutation*, consisting in the elision or softening of a consonant, the contraction of adjacent vowels, and the like. *E. g.*, *khá* "eat," Skr. *khád*; *chú* "leak," Skr. *chyt*;—*tor* "break," Skr. *troṭ* (causal of *trut*); *par* "fall," Skr. *pat*;—*paros* "distribute," Skr. *parivesh*; *ho* "be," Skr. *bhú* (*bhava*), &c.

2. *Incorporation of the "class-suffix,"* that is, the suffix, which in Sanskrit is inserted between the root and the personal endings, and according to which Sanskrit roots are divided into ten classes. In Hindí these suffixes are incorporated with the roots. Thus, *bújh* "understand," Skr. *budh* + *ya* (*budh* IVth class); *kop* "be angry," Skr. *kup* + *ya* (*kup* IVth); *nách* "dance," Skr. *nṛit* + *ya* (*nṛit* IVth); *sun* "hear," Skr. *ṣri* + *nu* (*ṣru* Vth); *bhanj* "break," Skr. *bhanaj* (*bhanj* VIIth); *ján* "know," Skr. *já* + *ná* (*jñá* IXth), &c.

3. *Incorporation of the passive suffix ya.* Thus, *lag* "belong," Skr. *lag* + *ya*; *sích* "irrigate," Skr. *sich-ya*; *de* "give," Skr. *dí* + *ya* (*dá*), &c.

4. *Change of "class."* In Sanskrit all roots are divided into ten classes, partly according to the various suffixes which some take before the personal endings in conjugation, partly according to internal phonetic changes which some undergo. The simplest roots are those of the VIth class; they are not subject to any internal change, but merely add the suffix *a*. In Hindí all roots alike are reduced to the simple form of the VIth class. This is done (*a*) by sometimes substituting the suffix *á* of the VIth class, for another suffix; or (*b*) by changing the final vowels of other class-suffixes (*u* in the Vth and VIIIth classes, *á* in the IXth class) to *a*. Thus (*a*) *páva* "obtain" (VIth), Skr. *práp* + *nu* (Vth; as if it were *práp* + *a* VIth); *mánga* "ask" (VIth), Skr. *márg* + *aya* (Xth); again (*b*) *kara* "do" (VIth), Skr. *kar-u* (VIIIth, *kri*); *jána* "know" (VIth), Skr. *já* + *ná* (IXth, *jñá*). That is, the Hindí roots *páv*, *máng* (नांग), *kar*, *ján*, all of the VIth class, correspond to the Sanskrit roots *práp*, *márg*, *kri*, *jñá*, of the Vth, Xth, VIIIth and IXth classes respectively, &c.

5. *Change of "voice."* Some Hindí roots are derived from the passive base of a Sanskrit root. Thus, *bhaj* "break" (active), Skr. *bhaj* + *ya* "be broken" (passive of *bhanj*); *de* "give," Skr. *dí-ya* "be given" (*dá*); *sak* "can," Skr. *sak* + *ya* (*sak*); *bik* "sell" (act. intrans.), Skr. *vikri-ya* (*vikri*), &c.

6. *Change of tense.* Some Hindí roots are derived from the future base of a Sanskrit root. Thus *dekh* "see", Skr. *drakshya* (future of *drish*); (old H.) *nakh* or *nañkh* "destroy" or "throw away", Skr. *nañkshya* (future of *naṣ*); (old H.) *krakh* "draw", Skr. *krakshya* (future of *kriṣh*); *khech* or *khaich* "draw," Skr. *krakshya* (future of *kriṣh*).

7. *Addition of the pleonastic suffix api.* Thus *sukháv* "please," Skr. *sukh* (as if it were *sukhápí*). In causal roots this is the universal rule; e. g., *karáv* (or shortened *kará*) "cause to do," as if it were derived from a Sanskrit root *karápi* (instead of *kári*).

It will be observed that the laws 2 and 4, and again 3 and 5 are closely connected.

The preservation of a final single consonant (especially a hard consonant) in a Hindí root is a sure sign of its having been affected by the 3rd or 5th law. The final *g* of such a very common root as *lag* would not have been able to escape elision during its passage through Prákrit, unless it had been protected by another consonant following it; Skr. *lagati* "he belongs" would become Pr. *laṅi*, H. *lai*; but Skr. *lagyate* is Pr. *laggaṅi*, H. *lagai* or *lage*.\*

The termination *aya* of Sanskrit roots (or rather bases) of the Xth class and of causals is contracted in Prákrit to *e*. This *e* is changed to *a* in Hindí, by the 4th law. Thus Skr. *márgaya* "ask" is Pr. *magge*, H. *mánga* (मंग); Skr. *troṭaya* "break" is Pr. *toḍe*, H. *toṛa*. On the same principle the Skr. *vikriya* "sell" (pass.), which in Pr. becomes *vikke*, is H. *bika*; thus Skr. *vikriyate* "it sells," Pr. *vikkeṅi*, H. *bikai* or (contracted) *bike*.

Secondary roots may be divided into three sorts, according to the manner of their derivation; whence they may be called derivative, denominative and compound roots.

1. *Derivative roots* are those which are obtained by the *shortening of a radical vowel*. E. g., *nah* "flow" from *nahá* "bathe", Skr. *sná*. It will be observed that this process is the exact reverse of the well-known method by which Causals are formed in Sanskrit. These are made by *lengthening a radical vowel*; e. g., from the simple root *kar* "do" Sanskrit forms the causal root *kári* "cause to do," for which, by the 7th law, Hindí places *karáv* or *kará*. Now, mistaking *nahá*, which really is a simple root, to be a causal root (as if it meant "cause to flow"), Hindí re-derives from it a simple root *nah*; the pair of roots *nahá* and *nah* being, in outward appearance, exactly like the pair *kará* and *kar*.

2. *Denominative roots* are made by treating nouns, as if they were roots. The nouns which may be treated in this way are either substantives or participles. To the former class belong such roots as *jam* "germinate," derived from the Sanskrit substantive *janma* "birth" (of the Skr. root *jan* "be born"). Of the other kind are *paiṭh* "enter," derived from the

\* This process is expressly mentioned by Prákrit Grammarians, in the case of a few roots; as Pr. *rujjhai* (or *rubbhai*) act. "he hinders" as well as pass. "he is hindered," from Skr. pass. *rudhyate* "he is hindered," while the Skr. act. is *runaddhi* (VIIth cl.); see H. C. 4, 218, 245, 248. But it clearly occurred in more cases, than they recognized; thus, in all those cases enumerated in H. C. 4, 230. The case of the Hindí root *bhay* "break" is exactly similar. See also S. Goldschmidt in J. G. O. Soc., Vol. XXIX, p. 492. and Weber *Saptaśataka*, p. 64.

Sanskrit participle *pravishṭa* "entered" (of the Skr. root *pra-viṣ* "enter"); *baiṣṭh* "sit" and *piṣṭh* "beat", derived respectively from the Sanskrit participles *upavishṭa* "sitting" and *piṣṭa* "beaten" (of the Skr. roots *upaviṣ* and *piṣh*).\*

3. *Compound roots* consist of the Sanskrit root *kṛi* "do" or "make," and some noun governed by it in the accusative case; in fact, they represent *phrases* in a contracted and much corrupted state. They can easily be recognized by their terminal consonant *k*, which alone remains of their original radical element *kṛi*. Thus *chuk* "cease" is derived from *chyt* + *kṛi*, which is a compound of the Sanskrit noun *chyt* "flowing away" and *kṛi* "make;" *e. g.*, the Skr. 3rd pers. sing. pres. *chyt-kṛiyate*, lit., "he is made a flowing away," is Pr. *chukkei*, H. *chukai* (or *chuke*) "he ceases." Similarly *ruk* "stop" or "be hindered" comes from *rut* + *kṛi*, *i. e.*, from the Sanskrit noun *rudh* "hindrance" and root *kṛi* "make;" again *kasak* "be pained" or "suffer pain" from *kasham* + *kṛi*, *i. e.*, from the Skr. noun *kasha* "pain" + *kṛi* "make." It is probable, I think, that the Prākṛit termination (3rd sing. pres.) *kei*, Hindî *kai* or *ke*, is phonetically derived from the Sanskrit passive *kṛiyate* "he is made," Skr. *rut karoti* would mean "he makes a hindrance"; this phrase, being treated as a compound word, would form the passive *rutkṛiyate*,† "he is made a hindrance" or "he is hindered," whence would regularly arise the Prākṛit *rukkei*, and the Hindî *rukhai* or *rukke* "he is hindered." Many of these compound roots are intransitive, which would naturally agree with their derivation from a Sanskrit passive root or base. Others which are transitive could, however, be no less easily derived in the same way, by the aid of the fifth of the above-mentioned laws, the "change of voice."

By far the largest number of Hindî roots can be brought under one or the other of the above-mentioned classes. Still there remains a small number of roots, the derivation of which, as yet, cannot be satisfactorily explained; *e. g.*, *ḍho* "carry," *lauṣ* "return." Even these, further research will probably show to belong to one of the two great classes.

The root *dekh* claims some special consideration on account of the controversy regarding its origin to which it has given rise. Various

\* Beames in his *Comp. Grammar*, Vol. III, p. 37 (footnote) says about me that "he discussed this as if it was his own discovery in *Indian Antiquary*, Vol. I, p. 357." The word "if" is superfluous. The fact is, my article appeared in the December number of that *Journal* in 1872, and was written some months previously. Beames' 1st Vol. appeared towards the end of that year, and I did not receive it till after some time in 1873; so that when I wrote the article, it was impossible for me to know, that my views had been anticipated by Beames; though, indeed, it may be questioned, whose the merit of the first discovery is, if such a matter can be dignified by that name. Moreover my theory has a much wider application than Beames', as it includes nouns as well as participles.

† A mongrel form, no doubt, but nothing unusual in colloquial speech.

theories have been put forward,\* among which that of Childers is now probably more generally accepted than any other. Stated briefly, his theory, as first applied to the Pali root-form *dakkh*, is that this root is derived from the Sanskrit future base *drakshya* (Skr. *drakshyati* = Páli *dakkhati*), its original future meaning having been forgotten in later times†. The theory, if true, must, of course, equally apply to the root in its Prákrit and Gauḍian form *dekh*. In this form, however, it can hardly be directly connected with the future base. But there is, both in Prákrit and Gauḍian, another very common root *pekh*, also meaning “see”. It appears to me most probable that the original form *dakh* was in course of time changed to *dekh*, in order to assimilate it to *pekh*.‡ The formation of such, more or less unintentional, assimilations is quite in keeping with the genius of vernacular languages. There are some very striking instances in Hindî. For example there is in E. Hindî the pair of roots *de* “give”, and *le* “take”, representing the Sanskrit roots *dá* and *labh*. The 3rd singular present are *dey*, *ley*, Pr. *deī*, *lei*; here *ley* and *lei* “he takes” are formed in assimilation to, or after the analogy of *dey* and *deī* “he gives”. Prákrit has also the regular form *lahāi* “he takes”, from Skr. *labhate*. Again the E. Hindî has the past participles *dihal* “given”, *lihal* “taken”; here *dihal* is formed after the analogy of *lihal*, from Prákrit *lahida*. From the transitive pair of roots *pekh* and *dekh*, another, similarly assimilated, pair *pikh* and *dikh* is derived with, generally,§ an intransitive meaning “be seen”, “appear”. A more serious objection to Childers’ theory, in my mind, was the fact, that the origin assigned to

\* The whole subject of this controversy will be found briefly, but lucidly reviewed in Beames’ Comp. Grammar, Vol. III, pp. 45, 46. He does not mention, however, the ingenious theory of the two Goldschmidts (Paul and Siegfried), who explain *dakkh* as a denominative root derived from the past participle *drishṭa*, by assuming the well-known modern pronunciation of ॠ *sh* as ॠ *kh* to have already existed in Prákrit; (see S. Goldschmidt’s *Práctica*, pp. 6—8, and P. Goldschmidt’s *Essay in Göttinger Nachrichten*, 1874, pp. 518—520). But there is no evidence, really, of the existence of that usage in Prákrit; moreover in the modern vernaculars, ॠ would not be pronounced ॠ, when it stood first in a conjunct, but only when it stood singly or second in a conjunct; thus one might hear *purukh* (पुरुष) or *barkhá* (बर्षा), but not *jekhṭh* (जिष्ठ, always *jeshṭh*).

† In Kuhn’s *Beiträge zur vergleichenden Sprachforschung*, Vol. VII, p. 450; also in a private letter to myself.

‡ Beames also was of this opinion in his *Comp. Gr.* Vol. I, p. 162, where he remarks: “it is perhaps worth notice that in scenic Prákrit a very frequent word for ‘seeing’ is *pekkh*, and that possibly the existence of this verb may have had some influence on the creation of the somewhat anomalous form *dekh*. The idea is based on the well-known fondness of the Indians for jingling words of similar sound.” He now appears to have abandoned it, in Vol. III, p. 46. But it cannot be dispensed with; so far at least, as the relation of the later *dakkh* to the earlier *dakkh* is concerned.

§ In the old Hindî of Chand’s *Prithirāja Rasau*, *dikh* and *pikh* are commonly used in a transitive sense (see, e. g., the verse on p. 39); also in modern Hindî occasionally.

*dekh* seemed to be an unique one. So far as I know, no parallel case of such a process of creation of a new root from the future base has hitherto been shown to exist. Quite lately, however, in my reading of Chand's Prithirāja Rasau, preparatory to my edition of it in the Bibliotheca Indica,\* I have come across two other striking instances of that process, so that I now incline to consider Childers' theory to be fully proved. For this reason, I have now† inserted it in the list of laws of formation of roots, above enumerated. Those two instances are the roots *nakkh* or *nañkh* "destroy" or "throw away" and *krakkh* "draw" or "pull." The former occurs, e. g., in the following verses :

चटकितसयौ कर नयै ॥ (or नयै ) 27, 88.

i. e. "impatiently he throws away his rosary with his hand" ; again

इय सार मुष्मं निरसंकेत नयै ॥ 27, 84.

i. e. "the chiefs of the cavalry he fearlessly destroyed."

The root *krakkh* occurs in the following lines :

बिना लज्जा पयै सची दुंडि पिथौ ।

मनों डिंभरु जानिकै मीन ऋथौ ॥

i. e. "unblushingly searching for a partner, Sachī (wife of Indra) espied him, and, like as the fish her young, so she drew him to herself."

Now the origin of these two curious roots finds a very easy explanation, by applying to them Childers' theory. The future of the root *naṣ* "perish" is in Sanskrit *nañkshyati*, which would be Pr. *nañkhaï* or *nakkhaï*, whence in Hindī *nañkhai* or *nakkhai* with meaning of the present. It is to be noted, that in Hindī the meaning of the root has become transitive (by the 5th law). Similarly the Sanskrit future of the root *kṛish* "draw" is *krakshyati*, Apābhraṃṣa Pr. *krakkhaï*, whence in Hindī, with meaning of present tense, *krakkhai*. It should be observed, that the rhyme in the above lines would require *krikhyau* or a root *krikh*. This may serve to illustrate the process by which assimilations of radical forms are brought about in the vernaculars.

But further there is another well-known Hindī root, the origin of which, hitherto very puzzling, now finds an easy solution and thus serves as an additional confirmation of Childers' theory. This is the root *khech* or *khaich* or *kheñch* (खेच) or *khaiñch* (खैच) "draw." The Sanskrit conjunct *ksh* may change in Prākṛit to *kkh* or *chchh* ; thus the Skr. root *preksh* "see" becomes *pekkh* or *pechchh* in Prākṛit ; the Sanskrit future base *drakshya*

\* Three fasciculi of this Epic have been published, one of the 1st Vol. by Mr. Beames, and two of the 2nd Vol. by myself ; a fourth fasciculus (3rd of Vol. II) as well as an annotated English translation of the 1st fasc. of Vol. II will appear in the course of this year.

† It is not in the list given in my Comparative Grammar, pp. 161—171.

“will see” becomes *dakkha* or *daçchha* in Prákrit (see H. C. 3, 171).<sup>\*</sup> Similarly the Sanskrit future base *krakshya* or *karkshya* would, in Prákrit, become *kakkha* or *kachchha*; and the Sanskrit compound future base *ákarakshya* (of root *á* + *kriśh* “draw”) would become *áakkha* or *áachchha*. With the insertion of the usual euphonic *y*, the latter would become *áyachchha*. The Prákrit 3rd singular future accordingly might be *áyachchhāi* or (with the not unusual nasalization instead of the reduplication of a consonant) *áyañchhāi*; and, assuming Childers’ theory to be true, this form might occur as a present, equivalent to the Sanskrit *karshati*. Now what I have thus constructed theoretically, is an actual fact, as testified by Hema Chandra in his Grammar (4, 187). He gives the following forms *áyañchhāi*, *ayañchhāi*, *áiñchhāi†* as Prákrit equivalents of the Skr. *karshati*. The last form *áiñchhāi* (आइँच) has arisen by contracting *ya* into *i*, and is that form which has immediately passed into Hindí, with this difference only, that *chh* has been disaspirated (a process not uncommon in the modern vernaculars). Hindí has *aiñchai* or *eñchai* (ऐँचै or ऐचै). Now to return to *khech* and its compeers; the uncompounded root *kriśh* would yield a Prákrit form *kachchhai* or *kañchhāi*, which in Hindí, by transferring the lost aspiration of *chh* to *k* and by assimilation to *aiñchai* and *eñchai*, would result in the modern forms *khaiñchai* or *kheñchai* (खैँचै or खेँचै), or without nasalization, *khaichai* and *khechhai*. It will be observed that the later forms *kheñchai* or *khaiñchai* are related to what would be the earlier forms *khañchhai* or *kañchhāi*, just as the modern *dekhai* and Prákrit *dekhhai* are to the Páli *dakkhāi*.

There are two other roots which also deserve a special word. One is the root *hokh* “be” or “become.” It is an equivalent of the commoner root *ho* by the side of which it is very commonly used in Eastern Hindí. In Western Hindí, I believe, it is unknown. It is regularly conjugated, through all tenses. Its origin is obscure. I am inclined to look upon it as formed by the same (practically pleonastic) suffix *sk* which also occurs in such roots as *achchh* “be”, *gachchh* “go”, *yachchh* “hold”, the element *sk* would change in Prákrit either to *khh* or to *chchh*; so that *bhúsk* (or *bhavask*) would become Pr. *hokkh*, H. *hokh*, just as *ásk* (of *ás*) becomes Pr. *achchh*, H. *achh*, or *gask* (of *gam*) becomes Pr. *gachchh*. Possibly—though I do not think it, probable—the origin of *dekh* might be accounted for in a similar way.

\* See also footnote on page 49. The Prákrit word *sarichchha* “similar” exhibits the root-form *dichcha*, which is to *dekhh* (or *dúkkh*), as *pechchh* is to *pekkh*. On the other hand its Sanskrit equivalent *sadríksha* exhibits the Prákrit root *dekh* or *dichh* in its Sanskrit dress *dríksh*, and is, I believe, the only instance of the admission of that mongrel Prákrit root into Sanskrit.

† The MS. readings vary. H. C. also gives the forms *anachchhāi* and *ñachhāi*; in the former the nasal has been transferred to fill up the hiatus, in the latter *ái* is contracted into *a*.



The other is the still more common root *áv* (or H. H. *á*) "come." Its origin has, I think, not yet been satisfactorily explained. One would naturally connect it with the Skr. root *á-yá*, from which, clearly the Maráthi root *ye* "come" is derived. But this does not explain the terminal consonant *v* in the Hindî *áv*. Now it is a curious fact, that the root *áv* imitates, in every respect, the conjugational forms of the root *páv* (Skr. *práp* = *pra-áp*), instead of those of the root *já* "go" (Skr. *yá*) which one would expect it to follow. Thus, present participle E. H. *ávat* or W. H. *ávatu* "coming," E. H. *pávat* or W. H. *pávatu*\* "obtaining," but E. H. *ját* or W. H. *játu* "going;" past participle E. H. *áil* or *áyal* or *ává*, W. H. *áyau* "come," E. H. *páil* or *páyal* or *pává*, W. H. *páyau* "obtained," but E. H. *gáil* or *gayal* or *gayá*, W. H. *gayau* "gone;" 3rd sing. present H. *ávai*, H. H. *áve* "he comes," H. *pávai*, H. H. *páve* "he obtains," but H. *jáy*, H. H. *jáe* "he goes." I incline, therefore, to think that there is here another instance of the, already noticed, tendency of the Indian Vernaculars to assimilate verbal forms, so that the *v* in *áv* is due to the influence of *páv*; an influence, natural enough, when it is remembered that *v*, equally with *y*, is often inserted between two adjacent vowels for the sake of euphony.† This assimilation is a very old one. There are traces of it in Prákrit as well as in the Gipsy dialects. In Prákrit there is the 3rd sing. pres. *áveï*,‡ and shortened *ávaï* (H. C. 4, 367) "he comes." The regular Prákrit form would be *áaï* or shortened *áaï* (see H. C. 4, 240); but just as there is *uŧtheï* or shortened *uŧhái* (H. C. 4, 17) for *uŧtháai* or *uŧthái* (see Vr. 8, 25) "he stands up" (of root *ut-sthá*), so there might be *áeï* or *áaï* (of root *á-yá*), from which, by the insertion of the connecting consonant *v*, there would arise *áveï* and *ávaï*.§

The following List of Hindî Roots is arranged alphabetically, in two parts. Part I contains primary roots, while Part II consists of secondary roots.

\* *Páyatu* in Kellogg's Hindi Grammar, p. 202, § 377, is a misprint.

† This influence of *páv* even intrudes occasionally into the conjugation of *já* "go"; thus the E. H. has sometimes *jává* "gone," like *ává*, *pává*; and the 3rd sing. pres. *jáve* is rather common in H. H. beside *jáe* or *jáye*.

‡ This form is quoted by Dr. R. Mitra from the Pingala in the Vocabulary appended to his edition of the Sankshipta-sára. I have not been able to verify it; but the form is not intrinsically improbable.

§ It is just possible to connect *áv* with the Skr. root *api-i*; thus 3rd sing. *apyeti* Pr. *appēi* or *ápēi* or *áveï* (cf. *kádum* "to do" for *kattum*). H. C. 4, 400 seems to refer it to Skr. *á-pad* (or better *á-pat*?). The Bangálí uses an altogether different root, *ais* or *ás*. Beames, in his Comparative Grammar (III, pp. 44, 45) rightly refers this root, as well as the Sindhí *ach*, to the Skr. root *á-gachh* (of *á-gam*). Disaspiration of an aspirate and pronunciation of *chh* as *s* are not uncommon in the Indian vernaculars (see my Comparative Grammar, §§ 11, 145, exc. 2). The root *dgachh* would become in Pr. *dachh* (see Delius, *Radices Pracriticas*, pp. 69, 70) or *dyachh*; by contraction in Bangálí, the former would become *ás* (for *áchh*), the latter *ais* (for *áchh*). The root *ais* might, however, be also referred to the Sanskrit root *á-vi*.

PART I.—*Primary Roots.\**

- 1 **राम्** *room* = Skr. रम, Passive रमते (with active sense), Pr. रमर (H. C. 4, 230), H. रमै.
- 2 **राम्** *resemble* = Skr. रम + ह, I. cl. रमरति, Pr. रमरर (H. C. 4, 259 = Skr. रमरतिवति), E. H. रमरै.
- 3 **राम्** *come*, see introductory remarks, p. 41.
- 4 **राम्** *feed* = Skr. रम-ह, I. cl. रमरति, Pr. रमरर (H. C. 4, 259 = Skr. रमरति), E. H. रमरै.
- 5 **राम्** *pluck up* = Skr. रम-हृ, I. cl. रमरति, Pr. रमरर (H. C. 4, 187), H. रमरै (with transfer of aspiration, as in रमै, see p. 40 and my Comp. Gramm. § 132); see No. 28.
- 6 **राम्** *reveal* = Skr. रम-हृ, X. cl. रमरति, Pr. रमरर or VI. cl. रमरर (H. C. 4, 33), H. रमरै.
- 7 **राम्** *rise* = Skr. रम-स्था, Passive रमते (with active sense), Pr. रमर (cf. E. M. p. 27 and Ls. p. 345, also रमर) or VI. cl. रमर (H. C. 4, 17), H. रमै. In Pr. also VI. cl. रमर or contr. रमर (Vr. 8, 26), in H. *deest*.
- 8 **राम्** *fly* = Skr. रम-डी, IV. cl. रमते, Pr. रमर (Cw. p. 99, Spt. v. 223) or VI. cl. रमर, H. रमै.
- 9 **राम्** *descend* = Skr. रम-तृ, I. cl. रमरति, Pr. रमरर (H. C. 4, 339), H. रमरै.
- 10 **राम्** intr. *upset, come off from, come down* = Skr. रम-रु, I. cl. रमरति (रमरति), Pr. रमरर (H. C. 4, 174), H. रमरै.
- 11 **राम्** or **राम्** tr. *upset, take down* = Skr. रम-रु, Causal रमरति, Pr. रमरर or VI. cl. रमरर, H. रमरै or रमरै.
- 12 **राम्** *grow up* = Skr. रम-पद, IV. cl. रमते, Pr. रमरर (cf. H. C. 3, 142), H. रमरै.
- 13 **राम्** *boil* = Skr. रम-भृ, I. cl. रमरति, Pr. रमरर, H. रमरै; cf. root रम.
- 14 **राम्** *keep in reserve* = Skr. रम-ह, Causal रमरति, Pr. रमरर or VI. cl. रमरर, H. रमरै.
- 15 **राम्** *raise up, excite* = Skr. रम-हृ, Causal रमरति, Pr. रमरर or VI. cl. रमरर, H. रमरै.
- 16 **राम्** or **राम्** *grow up, also reprove* = Skr. रम-रु, I. cl. रमरते, Pr. रमरर (T. V. 3, 1. 133 = निरुति, H. C. 4, 259 has रमरर), E. H. रमरै, W. H. रमरै. In the sense "reprove" perhaps connected with रमर ?
- 17 **राम्** *subside* = Skr. रम-हृ, I. cl. रमरति, Pr. रमरर (H. C. 4, 85 रमरर, v. l. रमरर (with euphonic हृ), H. रमरै.
- 18 **राम्** *be drowsy* = Skr. ? , Pr. रमर (H. C. 4, 12 = निद्रायति), H. रमरै.

\* See List of Abbreviations at the end of this article.

- 19 *ऊर्ज* *be excited, raised up* = Skr. उद्-भू, I. cl. उद्भवति, Pr. उब्भवद् (Vr. 8, 3) or उब्भद् (cf. भति for भवति H. C. 4, 365), H. ऊर्जे; or denom. from ऊर्ज, Pr. उब्भ, cf. H. C. 2, 59.
- 20 *बोद्ध* see secondary roots.
- 21 *बोद्ध* *burn* = Skr. बध्-कुट्, IV. cl. बधकुट्यति, Pr. बोडडर, H. बोडै.
- 22 *बोस* *rot* = Skr. बध्-वस्, I. cl. बधवसति, Pr. बधवसर or बोवसर, H. बोसै (for बोडसै).
- 23 *कर* *do* = Skr. कृ, VIII. cl. करोति, vedic also I. cl. करति, Pr. करद् (Vr. 8, 13), H. करै. In Pr. also X. cl. करेर (H. C. 4, 337); Vedic also V. cl. कृषोति, Pr. कृषर (Vr. 8, 13), *deest* in H.
- 24 *कस्* *test* = Skr. कप्, I. cl. कषति, Pr. कसर, H. कसै.
- 25 *कस्* *tighten* = Skr. कप्, I. cl. कषति, but also VI. cl. कषति, whence Pr. कसर, H. कसै.
- 26 *कस्* *say* = Skr. कप्, X. cl. कषयति, Pr. कषेर (Spt. v. 35) or VI. cl. कषर (H. C. 4, 2. Cw. p. 99), H. कसै.
- 27 *काट* *cut* = Skr. कृत्, Causal कर्तयति, Pr. कटेर or VI. cl. कटर, (cf. 1. sg. कटं H. C. 4, 385), H. काटै.
- 28 *काट* *draw* see secondary roots.
- 29 *काँप्* or *कप्* *tremble* = Skr. कम्, I. cl. कम्पति, Pr. कंप् (H. C. 1, 30), H. काँपै or कपै.
- 30 *कान्* or *कौन्* *buy* = Skr. क्री, IX. cl. क्रीणाति, Pr. किरर (Vr. 8, 30) or किरर (Dl. p. 22), H. कानै or कौनै.
- 31 *कूट* *pound* = Skr. कुह्, X. cl. कुहयति, Pr. कुहेर or VI. cl. कुहर, H. कूटे.
- 32 *कूद्* or *कूद्* *jump* = Skr. कूद् (or कूद्), I. cl. कूदते, Pr. कुंदर, H. कूंदै or कूदै.
- 33 *कोद्* or *कोर्* *scrape, dig* = Skr. कुट्, X. cl. कोटयते, Pr. कोडेर or कोडर, W. H. कोडै or E. H. कोरै.
- 34 *कोप्* *be angry* = Skr. कुप्, IV. cl. कुप्यति, Pr. कुप्पर (H. C. 4, 230), H. कोपै.
- 35 *कप्* *be expended, sold* = Skr. कप् (X. cl. or Causal of क्वि), Passive कप्यते, Pr. कप्पर, H. कपै.
- 36 *खा* *eat* = Skr. खाद्, I. cl. खादति, Pr. खाप्पर or (contracted) खार (H. C. 4, 228), H. खाप्.\*
- 37 *खाँस्* *cough* = Skr. काश्, I. cl. कासते, Pr. कासर or खासर, (cf. H. C. 1, 181, खातिथं = कासितं), H. खाँसै.
- 38 *खिल* *be delighted, flower* = Skr. क्रीड्, Pass. क्रीयते, Pr. खिपुर् or खिलर (cf. H. C. 4, 168 खेषु and 4, 382 खेत्), H. खिलै.

\* In Prākṛit also the Passive कप्यते is used, apparently in an active sense; e. g. कप्यति "they eat" (Dl. p. 64, quoted from the Mṛchhakaṭīka; R. M. p. 87, seemingly quoting the same, gives कप्यदि).

- 39 बीज or बीज् *be vexed* = Skr. बिद्, VI. cl. बिन्दति; but also VII. cl. बिन्दे or IV. cl. बिन्दते, Pr. बिन्दर (H. C. 4, 224), H. बीजे or (corrupted) बीजे.
- 40 खुल् *be opened* or *open* = Skr. खुद्, Passive खुपते, Pr. खुडर or खुडर, H. खुले. See Nos. 41, 44.\*
- 41 खूट् *pluck* = Skr. खोट्, Passive खोद्यते (actively), Pr. खुडर (H. C. 4, 116, said to be a substitute for Skr. तोडते of root तुड्), H. खूट्.
- 42 खेल् *play* = Skr. क्रीड् (cp. क्रील् and खेल्), I. cl. क्रीडति, Pr. खेडर (H. C. 4, 188) or खेडर (H. C. 4, 382), H. खेलै. (Pr. also क्रीडर Dl. p. 47).
- 43 थो *throw away, lose* = Skr. थिप्, VI. cl. थिपति, Pr. थिवर, H. थोच् (with थो for इव, see my Comp. Grammar, § 122).
- 44 खोल् *open* = Skr. खुद् *divide*, X. cl. खोडयति, Pr. खोडेर or VI. cl. खोडर or खोलर, H. खोलै. See Nos. 40, 41.
- 45 गढ् *tie* = Skr. गंघ्, IX. cl. गघति, also I. cl. गन्धति, Pr. गंढर (H. C. 4, 120), H. गढै.
- 46 गढ् or गड् *form, grave* = Skr. घट्, I. cl. घटते, Pr. गढर (H. C. 4, 112), H. गढै or गडै. See Nos. 54, 59.
- 47 गढाच् *form* = Skr. घट्, Caus. घाटयति, Pr. गढावेर or गढावर (H. C. 4, 340), H. गढावै.
- 48 गन् or गिन् *count* = Skr. गण्, X. cl. गणयति, Pr. गणेर (S. B. 11, 27) or VI. cl. गणर (H. C. 4, 358), H. गनै or (corr.) गिनै (see my Comp. Grammar § 35, note).
- 49 गन् *be spent* = Skr. गम, Pass. गम्यते, Pr. गमर (Vr. 7, 9, 8, 58) H. गमै.
- 50 गरिषाच् or गलिषाच् *to abuse* = Skr. गर्ह् or गड्, X. cl. गर्हयति, Pr. गरिषावर (cf. H. C. 2, 104) or गलिषावर, E. H. गरिषावै for गरिषावै.
- 51 मल् *melt* = Skr. मल्, I. cl. मलति, Pr. मलर (H. C. 4, 418), H. मलै.
- 52 गृह् *seize* = Skr. ग्रह्, IX. cl. गृह्णाति, Pr. VI. cl. गेह्र (Vr. 8, 15) or गंहर (T. V. 2, 4, 157), H. गृहै.
- 53 गा *sing* = Skr. गै, I. cl. गायति, Pr. गावर or (contr.) गार (Vr. 8, 26), H. गाच्.
- 54 गाढ् or गाड् or E. H. गाह् *form*; see secondary roots.
- 55 गिर् *fall* = Skr. गृ, VI. cl. गिरति, Pr. गिरर, H. गिरै.
- 56 गुह् *thread* = Sk. गुफ्, VI. cl. गुफति, Pr. गुहर (H. C. 1, 236), H. गुहै.
- 57 गोच् *catch* = Skr. गुच् (or गुच), I. cl. गुचति, Pr. गुचर, H. गोचै.
- 58 घट् *decline* = Skr. घट् *depress*, Passive घटते, Pr. घटर, H. घटै.
- 59 घड् *form, happen* = Skr. घट्, I. cl. घटते, Pr. घडर (H. C. 4, 112) H. घड्. See Nos. 46, 54.

\* The roots खुल्, खोल्, खूट् are all connected with one another and with the Sanskrit roots खोट्, खोट, खोड्, खोर, खोल्, खुख्, खुद्, खुर, खुर, which all mean 1, "limp," 2, "divide" or "break." The original form, apparently, is खोट् or खर, or rather खुट्.

- 60 वस् or विस् *rub, be worn away* = Skr. वृष्, I. cl. वर्षति, Pr. VI. cl. वसर (= वृषति) or विसर (H. C. 4, 204, where it is said to be a substitute of वसति), H. वसे or विसै.
- 61 धास् *throw, destroy, mix* = Skr. धृष्, I. cl. धृते, Pr. धडुर or धसर (H. C. 4, 334, T. V. 3, 4, 6 where it is said to be a substitute of धपति), H. धालै.
- 62 वुस् or घोस् *mix with a liquid, dissolve* = Skr. वृष् (also वृष् and घोष्), I. and VI. cl. वृषति (also घोषते, वृषति, घोषति), Pr. वुसर or घोसर (Vr. 8, 6. H. C. 4, 117), H. वुलै or घोलै (see also Bs. III, p. 56).
- 63 वृस् *revolve* = Skr. वृष्, VI. cl. वृषति, Pr. वृसर (H. C. 4, 117), H. वृसै (also Bs. I, 344).
- 64 वेर् *gather, surround* = Skr. वृष्?; compare H. वर *house* with Skr. वृष्.
- 65 वद् *mount, increase* = Skr. उद्-वृद्, VI. cl. उवृदति, Pr. (dropping उ) वडुर or वडुर (T. V. 3, 1. 128), H. वडै.\*
- 66 वप् *be abashed* = Skr. वप् *press*, Passive वप्यते, Pr. वप्यर (see H. C. 4, 395. वपिञ्जर, T. V. 3, 4, 65. वपिञ्जर), H. वपे. The transitive form is वाप् or वाप्.
- 67 वर् *graze* = Skr. वर्, I. cl. वर्ति, Pr. वरर, H. वरे.
- 68 वल् or वाल् *walk* = Skr. वल्, I. cl. वलति, Pr. वलर or वलर (H. C. 4, 231), H. वलै or वालै.
- 69 वप् *drip* = Skr. वृष्, I. cl. वषते, Pr. ववर (H. C. 4, 233), H. ववे. See No. 74.
- 70 वाव् *masticate* = Skr. वर्व, I. cl. वर्वति, Pr. ववर, H. वावै (see also Bs. III, 40.)
- 71 चिन्त् *think* = Skr. चिन्त्, X. cl. चिन्तयति, Pr. चिन्तेर (Spt. 156, H. C. 4, 265) or चिन्तर (H. C. 4, 422), H. चिन्तै.
- 72 चिन्त् *gather* = Skr. चि, V. cl. चिनोति, Pr. VI. cl. चिसर (Vr. 8, 29. H. C. 4, 241), H. चिन्तै.
- 73 चुन्त् *gather, choose* = Skr. चि, V. cl. चिनोति, Pr. VI. cl. चुसर (H. C. 4, 238), H. चुन.
- 74 चू *leak* = Skr. चुत् (or छुत्), I. cl. चोतति, Pr. चोसर or चुसर (H. C. 2, 77), H. चूर

\* उद् + वृद् lit. *fall upwards*, an unusual word in Skr., but formed exactly like the common compound उद् + पत्.—The final द् of वृद् becomes व् in Pr., see H. C. 4, 130 उवृद् and Vr. 8, 51. H. C. 4, 219 उवृद्. The initial उ is dropped, and the aspiration of व् transferred to उ or lost altogether, just as in the root वाव् *desire*, from उवृद् = उद्-वाव् or from वृद्वा (see my Comp. Grammar § 132). In old H. the root is वडु; M. has both वड् and वर; but G., S. and B. have वड्, which is the form given by H. C. 4, 206 (वसर). T. V. 3, 128 gives both वडुर and वर.

- 75 **चूम** *kiss* = Skr. चुम्, I. cl. चुम्बति, Pr. चुम्बर (Vr. 8, 71), H. चूने.
- 76 **था** *thatch* = Skr. ढद्, X. cl. ढाढयति, Pr. ढारर (cf. Dl. 54) or VI. cl. ढाषर (T. V. 2, 4. 110 or ढावर in H. C. 4, 21) or ढार (by contraction; cf. Vr. 8, 26), H. ढाय.
- 77 **हिप्** or **चिप्** or **हुप्** *be hidden* = Skr. चि  *dwell secretly*, Causal Passive चेष्यते, Pr. ढेष्यर or ढिष्यर, H. ढिपै or (corr.) चिपै or हुपै.
- 78 **हौ** or **हौच्** *touch* = Skr. स्यम्, VI. cl. स्यमति, Pr. ढिहर or ढिवर (H. C. 4, 182), H. हौहै or हौहै. See No. 80.\*
- 79 **हौज्** *waste away* = Skr. ढिद्, Passive ढियते, Pr. ढिज्यर (H. C. 4, 484), H. हौजै.
- 80 **हू** or **हुच्** *touch* = Skr. हुप्, VI. cl. हुपति, Pr. हुवर, H. हूरे or हूहै. See No. 78.
- 81 **हुट्** or **हुट्** *be released* = Skr. हुट्  *cut*, Pass. हुट्यते, Pr. हुटर, H. हूटै or हुटै.
- 82 **होड्** *release* = Skr. हुट् Causal हुटयति, Pr. होडेर or VI. cl. होडर, H. होहै (see also Bs. III, 52).
- 83 **जन्** *give birth* = Skr. जन्, Causal जनयति, Pr. जणेर (Spt. 75) or VI. cl. जणर, H. जनै. Skr. also IV. cl. जायते, Pr. जाषर (H. C. 4, 136), H. *deest*.
- 84 **जप्** *recite* = Skr. जप्, I. cl. जपति, Pr. जंपर (Vr. 8, 24), H. जपद्.
- 85 **जर** *be feverish* = Skr. जर, I. cl. जरति, Pr. जरर, H. जरै.
- 86 **जल्** *burn* = Skr. जल्, I. cl. जलति, Pr. जलर (H. C. 4, 365), H. जलै.
- 87 **जा** *go* = Skr. या, II. cl. याति, Pr. VI. cl. जाषर or (contr.) जार (H. C. 4, 240), H. जाय्.
- 88 **जाम्** or **जामर** *watch* = Skr. जाण्ट, II. cl. जाणति, Pr. I. cl. जामरर and VI. cl. जणर (H. C. 4, 80), H. जामरै or जामै.
- 89 **जान्** *know* = Skr. ज्ञा, IX. cl. जानति, Pr. VI. cl. जाणर (H. C. 4, 7), H. जानै, (also Bs. III, 41).
- 90 **जी** *live* = Skr. जीव्, I. cl. जीवति, Pr. जीषर (H. C. 1, 101), H. जीरै.
- 91 **जुम्** *fight* = Skr. युष्, IV. cl. युष्यते, Pr. जुष्यर (Vr. 8, 48), जुम्भै (also Bs. I, 328). In old H. also जुम्ह्.

\* H. C. 4, 182 identifies the roots ढिच् and ढिप् with Skr. स्यम्, for which he gives the Pr. Pass. ढिष्यर (H. C. 4, 257). The latter is merely a hardened form of ढिष्यर, which would be the regular Pass. of ढिवर or rather of ढिहर. Now Skr. स्यम् = Pr. ढिच् or, on account of labial प्, = हुच् (see No. 80); again in Pr., ह्य् = ष्य् = ष्य् = ष्य्. Hence Skr. स्यमति = Pr. \*ढिष्यर = \*ढिष्यर = ढिष्यर. It follows that the radical forms ढिच् and हुच् (H. हौ and हू) are *derivative* roots, made from the Passives ढिष्य and हुष्य, and that the Skr. root हुप् is merely the Pr. root हुव in a Skr. dress (cf. Pr. पञ्च्यर &c., and see S. Goldschmidt in J. G. O. 8, 29, 493).

- 92 जुड़ *be joined* = Skr. जुड्, Passive जुड्यते, Pr. जुड्, H. जुड़े; a very old secondary denominative root of युक्त p. p. of Skr. root युज्.
- 93 जोड़ *join* = Skr. जुड्, X. cl. जोडयति, Pr. जोडेर् or VI. cl. जोडर्, H. जोड़े,
- 94 जूड़ *argue, dispute* = Skr. जूड्, I. cl. जूडति, Pr. जूडर्, H. जूड़े. See No. 96.
- 95 जूड़ or जूर् *fall off* = Skr. जूड्, VI. cl. (जूडति), Pr. जूडर् (H. C. 4, 130 for जूडर्), H. जूड़े or जूरे. See No. 97.
- 96 झाड़ *rush about* = Skr. जूड्, Passive जूड्यते (used in active sense), Pr. जूडर् (H. C. 4, 161. for जूडर्), H. झाड़े.\*
- 97 झाड़ *sweep off* = Skr. जूड्, Causal झाडयति, Pr. झाडेर् or VI. cl. झाडर्, H. झाड़े. See No. 95.
- 98 झाड़ *polish* = Skr. जूड्, Causal झाडयति, Pr. \*झाडेर् or VI. cl. \*झाडर्, H. झाड़े; cf. Skr. ज्वाला *brilliance*, ज्वाला *flame*.
- 99 टूड़ or टूक् *stitch* = Skr. टूक्, I. cl. टूकति, Pr. टूकर, H. टूके or टूके. Probably a compound root of छ.
- 100 टूड़ or टूड *break* = Skr. चुड्, VI. cl. चुडति, but also IV. cl. चुडति, Pr. गुडर् (H. C. 4, 230) or टूडर् (Pingal, as quoted by R. M. p. 99), H. टूड़े or टूड.
- 101 ठूड़ *cheat* = Skr. स्यग्, I. cl. स्यगति, Pr. ठगर्, H. ठगे.
- 102 डार or डाल् *throw away* = Skr. द्, *be scattered*, Causal दारयति, Pr. \*डारेर् or VI. cl. \*डारर्, H. डारे or डाले (cf. H. C. 1, 217 डारे).
- 103 डंस or डस् or डस् *bite* = Skr. दंस् or दस्, I. cl. दंसति or दसति, Pr. डसर (H. C. 1, 218) or डंसर्, H. डंसे or डंसे or डसे.
- 104 डोल *swing* = Skr. दुल्, X. cl. दोलयति, Pr. दोलेर् (H. C. 4, 48) or डोलेर (see H. C. 1, 217 डोला) or VI. cl. डोलर्, H. डोल.
- 105 डक् *cover* = Skr. स्यग्, Pass. स्यग्यते (used actively), Pr. डक्रेर्, (Spt. A. 54 for डक्रेर्) or VI. cl. डकर (H. C. 4, 21, where it

\* In B. this root is confounded with झाड़ "sweep." It is closely connected with the root जूड, the original meaning of which is preserved in Marāthī "rush violently into contact with," and in the Hindi जूड "quickly." Hence it comes to mean, on the one hand, "dispute, argue"; on the other hand, "become intermixed confusedly", "be entangled." With the latter meaning the root जूड has been received into Sanskrit; from it comes the Skr. जूड "shrub," "underwood," the H. जूड or झाड़. The original meaning it has preserved in the Skr. जूडति "quickly." The root may possibly be derived (as Bs. I, 177 says) from Skr. जूधि + जूड, though the sense of "roam about very much" would be expressed rather by जूति + जूड. But जूधति or Pass. जूध्यते (in act. sense) would regularly give Pr. जूधटेर् or जूधडरेर् or (by elision of जू) जूधरेर् or जूधरे, whence modern जूड़े or झाड़े. In the case of the root जूड, ड does not change to ड. (see H. C. 1, 195).

- is said to be a substitute of दाद्), H. डकै. (See Wb. p. 43, 64, 67). Perhaps compound root of खान्-क.
- 106 डास् *accuse* = Skr. ? Pr. डंसर (H. C. 4, 118 where it is said to be a substitute for Skr. विदत्), H. डाँसे. Perhaps a modification of डाँस्, No. 103.
- 107 डक् *approach* = Skr. डौक्, I. cl. डौकते, Pr. डुकर, H. डके.
- 108 डूङ् *search* = Skr. डुङ्, VI. cl. डुङ्गति, Pr. डुंजर, H. डूँडे.
- 109 तप् *burn* = Skr. तप्, I. cl. तपति, but also IV. cl. तपति, Pr. तप्यद् (see H. C. 4, 140 संतप्यद्), H. तपे.
- 110 तर् *cross* = Skr. तृ, I. cl. तरति, Pr. तरर (H. C. 4, 86), H. तरे.
- 111 ताक् *attend* = Skr. तर्क्, X. cl. तर्कयति, Pr. तकर (H. C. 4, 370) or VI. cl. तकर, H. ताकै.
- 112 तान् *stretch* = Skr. तन्, Causal तानयति, Pr. ताचेर or VI. cl. ताचर, H. तानै.
- 113 तार *save* = Skr. तृ *cross*, Causal तारयति, Pr. तारेर or VI. cl. तारर, H. तारै.
- 114 तुल् intrans. *weigh, be weighed* = Skr. तुल्, Passive तुल्यते, Pr. तुलर, H. तुलै.
- 115 तोङ् or तोर *break* = Skr. चट् *be torn*, Causal चोटयति, Pr. तोडेर or VI. cl. तोडर (see H. C. 4, 116, where however it is given as intrans.), W. H. तोड़े or E. H. तोरै.
- 116 तौल् or तोल् *weigh* = Skr. तुल्, X. cl. तोलयति or I. cl. तोलति, Pr. तोलेर or तोलर (T. V. 2, 4. 97), H. तोलै or तौलै.\*
- 117 थम् or थम् *be arrested, be supported* = Skr. थम्, I. cl. थामते, Pr. थामर, H. थामै or थामै. See my Comp. Grammar § 120.
- 118 थान or थान् or थान् or थान् *stop* = Skr. थाम् *be firm*, Causal थामयति, Pr. थामेर or VI. cl. थामर, H. थानै, &c.
- 119 थोप् *pile, prop* = Skr. थूप, IV. cl. थूपयति, Pr. थुपर, H. थोपै.
- 120 द् *be pressed down, be cowed* = Skr. दम्, Passive दम्यते, Pr. दमर or \*दमर, H. दमै (?).
- 121 दल् *split* = Skr. दल्, I. cl. दलति, Pr. दलर (H. C. 4, 176), H. दलै.
- 122 द् intrans. *burn* = Skr. द्, I. cl. दति, Pr. दर (Pingala, as quoted by R. M. p. 113; H. C. 2, 218 allows only दर; but the root द् does not occur in H), H. दै.
- 123 दार *split* = Skr. द्, Causal दारयति, Pr. दारेर or VI. cl. दारर, H. दारै.

\* H. C. 4, 25 gives Pr. तुलर; but the root तुल् in a trans. sense does not occur in H., though it is found in M. तुल् or तुळ्. In Skr. the root तुल् admits a X. cl. form तुलयति, from which the Pr. and M. trans. root तुल् is apparently derived.



- 124 दाष् trans. *burn* = Skr. दष्, Causal दाषयति, Pr. दाषेर or VI. cl. दाषर, H. दाषै, see No. 122.
- 125 दिष् *show* = Skr. दिष्, VI. cl. दिषति, Pr. दिषर, H. दिषै.
- 126 दिष् or दीष् *to appear* = Skr. दृष् see, Passive दृष्यते, Pr. दिषर or दीषर, (H. C. 3, 161), H. दिषै or दीषै.
- 127 दे *give* = Skr. दा, Passive दीयते (used actively), Pr. देर (Cw. p. 99, H. C. 4, 238), H. देष् or दे. In Pr. also VI. cl. दर (Spt. v. 216), H. *deest*.
- 128 देख see = Skr. दृष्, Future दृष्यति (used in sense of present), Pr. देखर (H. C. 4, 181), H. देखै. See introductory remarks.\*
- 129 वर *place* or *seize* = Skr. वृ, I. cl. वरति (*seize*) or वरते (*place*), Pr. वरर (H. C. 4, 234), H. वरै.
- 130 वंस or वच *sink*, *be pierced*, *run into* = Skr. वंस, I. cl. वंसते, Pr. वंसर or वसर (Pingala in R. M. p. 118, said to be a substitute for वावति), H. वंसै or वसै.
- 131 वार *hold* = Skr. वृ, Causal वारयति, Pr. वरेर or VI. cl. वरर, H. वरै.
- 132 वौ *wash* = Skr. वाष्, I. cl. वावति (or वू, VI. cl. वुवति), Pr. वौषर (Dl. p. 77) or (with euphonic व) वौवर, or वुषर (Spt. v. 133, 283) or वुवर (H. C. 4, 238), H. वौरे or वौवै.

\* The Skr. conjunct व्य may in Pr. become वव or व. This will explain the origin of the synonyms of देखर, which are enumerated in H. C. 4, 181; viz., with वव are formed ववववर = Skr. ववव्रयति (from root वव-दृष्); the same, contracted, becomes वौववर (with वौ for वव, see H. C. 1, 172); and the latter, expanded, becomes अवववर (with अव् for वौ, see my Comp. Gramm. § 48). With व्व are formed अवववर = Skr. अवव्रयति (for अवववर, with euphonic व्, see H. C. I, 180), and निववर = Skr. निव्रयति (from नि-दृष्). Again व appears to be softened in ववववर, which is probably identical with अवववर. From the manner in which Hemachandra places पेवर between निववर and अवववर, it would almost seem as if he looked upon it as a contraction of पयवर = Skr. प्रद्वयति (of प्र-दृष्). In classical Sanskrit the future of दृष् takes the irregular guṇa र (instead of अर्, see Panini VI, 1, 58); but in the ordinary speech, no doubt, both forms द्रयति and द्यति were used. It is the latter of the two, from which the Prākṛit forms are derived; thus ववववर = वववर (not = अववर) = ववद्यति. The alternative form of निववर would be निववर; this seems to be intended by the form विववर in Vr. 8, 69 (with व् disaspirated for व). The Pr. पासर is regularly formed from Skr. पयति = Pr. पसर (see Delius *Rad. Prae.*) or पासर (H. C. 1, 43); and Pr. अवपासर is the Skr. अवपयति. In Marāṭhī, the Pr. root पाष् becomes पाष्. The Pr. पुषोर is derived from Skr. प्रविशोकयति (with ववि contracted to व, see my Comp. Gramm. § 122); and Pr. पुसर is probably a mere corruption of it. None of all these forms, as far as I am aware, has left any representative in modern Hindī.

- 133 नट् *dance*, see secondary roots.
- 134 नव् or नौ intr. *bend, bow* = Skr. नम्, I. cl. नमति, Pr. नमद् (see H. C. 1, 183, नमिन् 1. pl.) or नवर (H. C. 4, 226), H. नवै or नौरे.
- 135 नवाच् or निवाच् trans. *bend, fold* = Skr. नम्, Causal नमयति, Pr. नवाचेद् or VI. cl. नवाचद्, H. नवाचै or निवाचै (with ए for च, see my Comp. Gramm. § 55).
- 136 नहा *bathe* = Skr. न्हा, II. cl. न्हाति, Pr. IV. cl. न्हाचद् (cf. Dl. 20) or (contr.) न्हाद् (H. C. 4, 14), H. नहाच्.
- 137 नाच् *dance* = Skr. नत्, IV. cl. नत्यति, Pr. नचद् (Vr. 8, 47. H. C. 4, 225), H. नाचै.
- 138 निकाल् or निकार् *pull out*, see secondary roots.
- 139 निक्वास् *expel* = Skr. निक्-क्स्, Causal निक्वासयति, Pr. निक्वासेद् or VI. cl. निक्वासर, H. निक्वाचै; cf. No. 138, the Skr. root क्स् being perhaps adopted from Pr. कस् for Skr. क्स्.
- 140 निखोद् or निखोर् *peel*; see secondary roots.
- 141 निचर् *be cleaned, be peeled* = Skr. नि-चर्, I. cl. निचरति, Pr. निचरद्, H. निचरै.
- 142 निचार् *clean, peel* = Skr. नि-चर् (or नि-चल्), Causal निचारयति, Pr. निचारेद् or VI. cl. निचारद्, H. निचारै.
- 143 निगल *swallow*; see secondary roots.
- 144 निघार् *to make clear* = Skr. नि-घृल्, Causal निघ्रायति, Pr. निघ्रासेद् or VI. cl. निघ्रासर, H. निघारै, applied to water, which is made clear by letting it stand still, till the impurities have settled down, and then pouring it off; hence the root has also the meaning "pour off."
- 145 निवद् *be separated, be decided, be accomplished* = Skr. निर-वद् *divide*, (X. cl. निर्वन्दयति), Pr. निवडेद् or निवडद् (H. C. 4, 62, where it is said to mean प्रथक् स्पष्टो वा भवति), H. निवडै. It is the pass. or intrans. form of No. 147. The Skr. root is transitive.
- 146 निवाच् or निभा *accomplish* = Skr. निस्-वच्, Causal निर्वन्दयति, Pr. निव्यासेद् or VI. cl. निव्यासर, H. निवाचै or निभाच् (with transferred aspiration; see my Comp. Gramm. § 132).
- 147 निवाद् *separate, divide, accomplish* = Skr. निर-वद् *divide*, Causal निवन्दयति, Pr. निव्याडेद् or VI. cl. निव्याडद्, H. निवाडै. See No. 145.
- 148 निव्ण्ड *separate, divide, accomplish* = Skr. निर-वन्द, I. cl. निर्वन्दते, Pr. निव्ण्डद्, H. निव्ण्डै (with ए for च, see my Comp. Gramm. § 148). This is merely another form of No. 147.
- 149 निवार *hinder* = Skr. नि-व, Causal निवारयति, Pr. निवारेद् (H. C. 4, 22) or VI. cl. निवारद्, H. निवारै.
- 150 निचर् *come out* = Skr. निस्-च, I. cl. निस्सरति, Pr. निस्सरद् (see R. M. p. 107; or नीसरद् H. C. 1, 93. 4, 79), H. निचर.
- 151 नोच् *pinch* = Skr. नि-कुञ्च् *contract*, VI. cl. निकुञ्चति, Pr. निउचद् H. नोचै (with षो for इञ्).

- 152 पच् *be digested* = Skr. पच् *digest*, Passive पचते, Pr. पचद्, H. पचे.
- 153 पठाच् *send* = Skr. प्र-स्था, Causal प्रस्थापयति, Pr. पठावेद् or VI. cl. पठावद् (H. C. 4, 37), H. पठावै.
- 154 पड् or पर् *fall* = Skr. पत्, I. cl. पतति, Pr. पडद् (Vr. 8, 51), W. H. पडै, E. H. परै.
- 155 पड् *read* = Skr. पठ्, I. cl. पठति, Pr. पडद् (H. C. 1, 199), H. पडै.
- 156 परच् or परक् *examine, test* = Skr. परि-रच्, I. cl. परीचते, Pr. परिपचद्, H. परचै. It also has the secondary meaning "become habituated", owing to repeated trial.
- 157 परच् *become acquainted* = Skr. परि-चि, Pr. VI. cl. \*परिचद्, H. परचै.
- 158 पला or परा *run away* = Skr. पलाच्, I. cl. पलायते, Pr. पलाचद् or (contr.) पलाद् (Pingala, quoted by R. M. p. 129),\* H. पलाच् or पराच्.
- 159 परिहर् *forsake* = Skr. परि-हृ, I. cl. परिहरति, Pr. परिहरद् (H. C. 4, 259 said to be = त्यजति), H. परिहरै.
- 160 परोस् *offer food* = Skr. परि-विष्, Causal परिवेषयति, Pr. पारवेसेद् or VI. cl. परिवेषद्, H. परोसे (with षो = ह्वे, see my Comp. Gramm. § 122).
- 161 पसर् *be spread* = Skr. प्र-श्, I. cl. प्रसरति, Pr. पसरद् (H. C. 4, 77), H. पसरै.
- 162 पसार् *spread* = Skr. प्र-श्, Causal प्रसारयति, Pr. पसारेद् or VI. cl. पसारद्, H. पसारै.
- 163 पसीञ् *perspire* = Skr. प्र-सिद्, IV. cl. प्रसिचति, Pr. पसिञ्चद् (see H. C. 4, 224), H. पसीञे.
- 164 पञ्च *stitch* = Skr. प्र-चिच्, IV. cl. प्रचीचति, Pr. \*पञ्चद् (perhaps contracted for \*पचिञ्चद्), H. पञ्चै.
- 165 पहिनाच् or पहिनाच् *cause to put on, cause to dress* = Skr. पि-नच्, Causal पिनाचयति, Pr. पिनाचवेद् or VI. cl. पिनाचवद्, H. पहिनाचै (with transposition of न् and च्) or पहिनाचै (with transposition of र and च्, see my Comp. Gramm. § 133). See also Nos. 166, 167 for a similar transposition. From this root is formed the derivative root पिचन् or पहिन् *put on, dress*.
- 166 पहिद् *put on, dress* = Skr. परि-चा, Passive परिचीयते (with active sense), Pr. परिचेद् (see Cw. p. 99, sūtra 21 चेद्) or परिचद् (see Wb. p. 59 हेद् and हद् of root दा) or परिहद्, H. पहिरै (with transposition of र and च्, see No. 165). This root, however, might be also a derivative root from पहिराच् No. 167. In the Gujarāti form पेहद् the र of the second syllable has modified the vowel of the first.
- 167 पहिराच् *cause to put on, cause to dress* = Skr. परि-चा, Causal परिचाप-

\* पलाड, I suppose, is a misprint for पलाद्.

- यति, Pr. परिधावेद् or VI. cl. परिधावद् or परिधावद्, H. परिधावे (with transposition of र् and ष्, as in Nos. 165, 166).
- 168 पङ्क्त् or पङ्क्त् or पङ्क्त् *obtain, arrive* = Skr. प्र-भ्, I. cl. प्रभवति, Pr. पङ्क्त् or पङ्क्त् (H. C. 4, 390), H. पङ्क्त् or पङ्क्त् or पङ्क्त्. It is formed with the pleonastic suffix क्त्, like the root षोक्, see introductory remarks; only in this case, क्त् changes to क्त् and is afterwards disaspirated. Marāṭhī has षोक्त् or षोक्त्, where the क्त् of the second syllable has modified the first.
- 169 पाङ्क्त् *let fall* = Skr. पत्, Causal पातयति, Pr. पाङ्क्त् (H. C. 4, 22) or VI. cl. पाङ्क्त् (H. C. III, 153), H. पाङ्क्त्.
- 170 पार् *accomplish* = Skr. पू, Causal पारयति, Pr. पारेद् or VI. cl. पारद् (H. C. 4, 86), H. पारै.
- 171 पाल् *cherish* = Skr. पा, Causal पालयति, Pr. पालेद् or VI. cl. पालद्, H. पालै.
- 172 पाव् *obtain, find* = Skr. प्र-वाप्, V. cl. प्राप्नोति, Pr. VI. cl. पावद् (H. C. 4, 239), H. पावै.
- 173 पिक्त् *melt* = Skr. षपि- or पि-गल्, I. cl. षपिगलति, Pr. पिगलद् H. पिगलै? See my Comp. Gramm. § 131.
- 174 पी *drink* = Skr. पा, I. cl. पिबति, Pr. पिबद् (H. C. 4, 10), H. पीवै.
- 175 पीक्त् *tread down* = Skr. पिप्, Future पेक्षति, (with meaning of present), Pr. पेक्त् or पिक्त्, H. पीवै (with disaspiration, as in खेवै, see introductory remarks, p. 40).
- 176 पीक्त् *be pained* = Skr. पीक्, I. cl. पीडते, Pr. पीडद्, H. पीडै.
- 177 पीक्त् *grind* = Skr. पिप्, VII. cl. पिमष्टि, Pr. X. cl. पिंसेद् or पीसेद् (cf. Ls. p. 347) or VI. cl. पिंसद् or पीसद् (H. C. 4, 185), H. पीवै.
- 178 पुराव् *fill, thread* = Skr. पू, Causal पूरयति, Pr. पुरावेद् or VI. cl. पुरावद्, H. पुरावै (or W. H. also पिरावै in the sense of *threading, stringing*).
- 179 पूक्त् *ask* = Skr. प्रह्, VI. cl. प्रहति, Pr. पूक्त् (H. C. 4, 97), H. पूवै.
- 180 पूक्त् or पेक्त् *wipe* = Skr. प्र-खंद्, I. or VI. cl. प्रोक्खति, Pr. पेक्त् or पुंक्त् (H. C. 4, 105), H. पेक्त् or पूवै.
- 181 पूज् *worship* = Skr. पूज्, X. cl., but also I. cl. पूजति, Pr. पूजद्, H. पूजै.
- 182 पद् or पैर् *swim* = Skr. प्र + न्, I. cl. प्रनरति or VI. cl. प्रनरति, Pr. पद्, E. H. पद् or W. H. पैरै.
- 183 पद् or पैर् *enter* = Skr. प्र-विष्, VI. cl. प्रविशति, Pr. पविसद् (H. C. 4, 183) or पद्, H. पद् or पैरै.
- 184 पेक्त् *squeeze out, shove* = Skr. पीक्, I. cl. पीडते, Pr. पेक्त् (H. C. 4, 143), H. पेवै. See No. 42, खेवै from root खीक्. Perhaps a denominative of पिष्ट = पेड् = पेक्त् = पेक्त्.
- 185 पोक्त् *nourish* = Skr. पुष्, I. cl. पोषति, Pr. पोसद्, H. पोवै.

- 186 **फट्** or **फाट्** *burst* = Skr. **खट्**, Passive **खटाते**, Pr. **फहर**, H. **फाटे** or **फटे**.
- 187 **फल्** *bear fruit* = Skr. **फल**, I. cl. **फलति**, Pr. **फलर** (Spt. 17), H. **फले**, Connected with roots **खट्** and **पट्**; see No. 189.
- 188 **फंस** or **फांस** *stick, be ensnared* = Skr. **स्युम्**, VI. cl. **स्युमति**, Pr. **फंसर** or **फासर** (H. C. 4, 182, probably denom. of **फंस** or **फांस** = **स्युम्** cf. Vr. 4, 15. H. C. 2, 92), H. **फंसै** or **फांसै**. This root is also used transitively, in the sense of "ensnare", "deceive", see H. C. 4, 129, where **फंसर** is said to be a substitute of **विसंबदति**.
- 189 **फाट्** *cleave, split* = Skr. **खट्**, X. cl. **खाटयति**, Pr. **फाडेर** or VI. cl. **फाडर**, (H. C. 1, 198. 232), H. **फाडै**. Hemachandra refers it to root **पट्**, X. cl. **पाटयति**.
- 190 **फांद्** *jump* = Skr. **खंद्** *shake*, Causal **खंदयति**, Pr. **फंदेर** or VI. cl. **फंदर**, H. **फांदै**. Observe the same transition of meaning as in No. 191. It is also used transitively, in the sense of "ensnare", "imprison", corresponding to the intransitive root **फांद्**, see secondary roots. H. C. 4, 127 gives **फंदर** in its original sense of "shaking", "quivering" = Skr. **खंदते**; its synonym **बुलबुलर**, which H. C. also gives, still exists in H. **बुलबुलै** or **बुलबुलै** or **बुलमुलै** or **बुलबुलै**, &c., "he is fidgety."
- 191 **फाल्** *jump* = Skr. **खाल्** *shake*, Causal **खालयति**, Pr. **फालेर** or VI. cl. **फालर**, H. **फालै**. Probably connected with root No. 189; H. C. 4, 198. 232 give **फालेर** as an other form **फाडेर**.
- 192 **फिट्** *be paid off, be discharged* = Skr. **खिह्**, X. cl. **खिहयति**, Pr. **फिहर** (H. C. 4, 177, said to be = **खंश्** "cease", "decline"), H. **फिटै**; cf. R. **खट्** and **खुट्**.
- 193 **फुट्** or **फूट्** *expand, increase, be broken, be dispersed* = Skr. **खुट्**, Passive **खुटाते**, Pr. **फुहर** (Vr. 8, 58. H. C. 4, 177, where it is said to be a substitute of **खंश्**, in the sense of "being broken"), H. **फुटै** or **फूटै**. See No. 194.
- 194 **फुल्** or **फूल्** *blossom* = Skr. **खुट्**, VI. cl. **खुटति**, Pr. **फुहर** or **फुडर** (Vr. 8, 53) or **फुडर** (H. C. 4, 387 whence Skr. R. **फुल्** adopted), H. **फुलै** or **फूलै**. See No. 193.
- 195 **फेर** or **फिर** *turn, move round* = Skr. **परि + ह्**, II. cl. **पर्यति**, Pr. **फेरेर** or **फेरर** (with change of **प** to **फ** and of **पर्य** to **एर**, as in **पेरते** for **पर्यते**), H. **फेरे**.
- 196 **फैस्** *spread, be dispersed* = Skr. **खिह्**, X. cl. **खिहयति**, Pr. **फेडेर** or VI. cl. **फेडर** (H. C. 4, 358; in H. C. 4, 177 the simple form **फिडर** is given as a substitute of **खंश्**) or **फेडर** (whence Skr. R. **फैस्**), H. **फैलै** See Nos. 189, 192, 193; the original meaning "split", hence "expand", may change either to "increase" or to "decrease", to growth or to decay.

- 197 जो *unfasten* = Skr. प्र-मुञ्च, VI. cl. प्रमुञ्चति, Pr. प्रमुञ्चद् (cf. H. C. 4, 91), H. जोरे (for जोरे = पञ्चरे).
- 198 जोड़ *break* = Skr. स्फुट, Causal स्फोटयति, Pr. जोड़ेद् (H. C. 4, 350) or VI. cl. जोडद्, H. जोड़ै.
- 199 गू *go away, escape* = Skr. गच्छ, I. cl. गच्छति, Pr. गच्छद् (Vr. 8, 47), H. गूँ. More likely from root गच्छ, or from Pass. ह्यन्ते of Skr. R. हत्.
- 200 गूज or गूज sound = Skr. गद्, Causal Passive गायन्ते, Pr. गूजद् (H. C. 4, 406), H. गूँ or गूँ.
- 201 गूँ *be ensnared* = Skr. बंध, Passive बध्यन्ते, Pr. गूँजद् (H. C. 2, 26, 4, 247), H. गूँ.
- 202 गूँ tr. and intr. *twist, divide* = Skr. बद्ध, Passive बद्धन्ते, Pr. गूँजद्, H. गूँ.
- 203 गूँ or E. H. गाँ *grow* = Skr. हृष्, I. cl. वर्धन्ते, Pr. गूँजद् (Vr. 8, 44), H. गूँ or E. H. गाँ.
- 204 गूँ *enlarge, complete* = Skr. हृष्, Causal वर्धयति, Pr. गूँजावेद् or VI. cl. गूँजावद्, H. गूँजाँ. (T. V. 3, 1. 132 has गूँजाविषं = समापितं).
- 205 गूँ *show, relate* = Skr. हत्, Causal वर्तयति, Pr. गूँजावेद् or VI. cl. गूँजावद्, H. गूँजाँ.
- 206 गूँ *kill* = Skr. बध् (or बाध्, I. cl. बाधते), Pr. गूँजद्, H. गूँ.
- 207 गूँ *be made* = Skr. बन्, Passive बन्धते, Pr. गूँजद्, H. गूँ. In Sindhi it means "go, come," cf. the Māgadhī गूँजद् (H. C. 4, 294) which the Prākṛit Grammarians derive from the Skr. R. ब्रज् *go* or *become*.
- 208 गूँ *marry* = Skr. ह, V. cl. हस्यति, but also I. cl. वरति, Pr. गूँजद् (Vr. 8, 12), H. गूँ.
- 209 गूँ or गूँ *rain* = Skr. हृष्, I. cl. वर्धति, Pr. गूँजद् (Vr. 8, 11.; perhaps denom. of वर्ध), E. H. गूँजै or W. H. गूँजै.
- 210 गूँ *burn* = Skr. ज्ज, I. cl. ज्जति, Pr. गूँजद् (H. C. 4, 416 ज्जति), H. गूँ.
- 211 गूँ *dwell* = Skr. वच्, I. cl. वचति, Pr. गूँजद्, H. गूँ.
- 212 गूँ *flow* = Skr. वच्, I. cl. वचति, Pr. गूँजद् (H. C. 1, 38), H. गूँ. The root गूँज् *glide happily, be diverted* is a passive or intrans. of a causal गूँजाव् formed like पिच्छाव् from पीच् *drink*.
- 213 गूँ *recite, read*; see secondary roots.
- 214 गूँ *wish* = Skr. वाञ्छ, I. cl. वाञ्छति, Pr. वाञ्छद् (T. V. 3, 1. 133), H. वाँछ.
- 215 गूँ *bind* = Skr. बंध, IX. cl. बन्धति, Pr. VI. cl. बंधद् (H. C. 1, 187), H. बाँधै.
- 216 गूँ or गूँ *kindle, light* = Skr. ज्ज, Causal ज्जयति, Pr. गूँजावेद् or गूँजावद्, W. H. गूँजाँ or E. H. गूँजाँ. See No. 210.
- 217 गूँ *perfume* = Skr. वाष्, X. cl. वासयति, Pr. गूँजावेद् or VI. cl. वासद्, H. वाँधै.

- 218 विक्र् *be sold* = Skr. विक्री *sell*, Passive विक्रीयते, Pr. विक्रोर् or विक्रद्, H. विकै (see Vr. 8, 31. H. C. 4, 240, where however the form विक्रोर् is given as act. trans ; in the moderns it is intrans. or pass., and the trans. root is वेच्, cf. No 242.
- 219 विमर् or E. H. विमर् *be at variance, be spoiled* = Skr. विवट्, I. cl. विवटते, Pr. विमडर् (cf. H. C. 4, 112), H. विमडै (for विमडै). See No. 46.
- 220 विमाद् *make discord, spoil* = Skr. विवट्, Causal विवाटयति, Pr. विमाडोर् or VI. cl. विमाडर्, H. विमाडै (for विमाडै). See No. 54.
- 221 विचार् *reflect* = Skr. वि-चर्, Causal विचारयति, Pr. विचारेर् or VI. cl. विचारर्, H. विचारै.
- 222 विडर् *scatter* = Skr. वि-ड्, IX. cl. विडहति, Pr. I. cl. विडरर् (cf. No. 102), H. विडरै.
- 223 विडार् *drive away* = Skr. वि-ड्, Causal विदारयति, Pr. विडारेर् or VI. cl. विडारर्, H. विडारै. See No. 102.
- 224 वितर् *grant* = Skr. वि-न्, I. cl. वितरति, Pr. वितरर्, H. वितरै.
- 225 विचार् tr. *spread* = Skr. वि-श्, Causal विचारयति, Pr. वित्वारेर् or VI. cl. वित्वारर्, H. विचारै.
- 226 विराव् *mock* ; see secondary roots.
- 227 विलक्ष् or विलक् *see, be confused* = Skr. वि-लक्ष्, X. cl. विलक्षयति, Pr. विलक्षोर् or VI. cl. विलक्षर्, H. विलक्षै or (corrupt) विलक्षै.
- 228 विलम् intr. *separate* = Skr. वि-लम्, Passive विलग्यते (with active sense), Pr. विलम्गर् (cf. Vr. 8, 52), H. विलगै.
- 229 विलम् *ascend* = Skr. वि-लम्, I. cl. विलङ्गति, Pr. विलम्गर्, H. विलगै (for विलम्गै).
- 230 विलस् *be pleased* = Skr. वि-लस्, I. cl. विलसति, Pr. विलसरर्, H. विलसै.
- 231 विल्वाव् tr. and intr. *disperse, vanish* = Skr. वि-ल्वौ, Causal विल्वापयति, Pr. विल्वावेर् or VI. cl. विल्वावर्, H. विल्वावे.
- 232 विचर् *enjoy one's-self* = Skr. वि-च्, I. cl. विचरति, Pr. विचरर् (H. C. 4, 259 where it is said to be a substitute of Skr. क्रीडति), H. विचरै.
- 233 विहाय् or विहा *leave, spend* = Skr. वि-हा, III. cl. विजहाति, Pr. I. cl. विहायर् or विहायर् or (contr.) विहार, H. विहायै or विहाय् ; cf. Vr. 8, 26.
- 234 विस्र् *forget* = Skr. विस्, I. cl. विस्तरति, Pr. विस्तरर् (cf. H. C. 4, 74), H. विस्रै.
- 235 वीम् *tear, break up* = Skr. विम्, Passive विम्यते (used actively), Pr. विम्यर्, H. वीमै (for वीमै, with aspiration transferred ; see my Comp. Gramm. § 132), or perhaps Skr. वीम्, IV. cl. विम्यति, Pr. विम्यर्, H. वीमै.
- 236 वीत् *pass* ; see secondary roots.
- 237 वीन् or विन् *choose* = Skr. वी, IX. cl. वीहति or विहति, Pr. VI. cl. वीहर् or विहर्, H. वीहै or विहै.

- 238 बुझ् *be extinguished* = Skr. वि-ञ्च-ञ्चै, I. cl. चञ्चयति, Pr. बोझेर or बोझर (or बु०), H. बुझे. See Weber Spt p. 32.\*
- 239 बुड् or बुड् *dive, sink* = Skr. ङ्ङ, VI. cl. ङ्ङति Pr. बुडुर (H. C. 4, 101), H. बुडे or बुडे or W. H. transposed बुडे or बुडे.
- 240 बुत् *be extinguished* = Skr. वि-ञ्च-इत् *come to an end*, I. cl. चञ्चते, Pr. व. वचर or वचर or बुचर, H. बुत्ते. Compare H. वती = वतिकी *light, lit. wick.*
- 241 बुचार् *gather, sweep* = Skr. वि-ञ्च-ञ्च, Causal चञ्चयति, Pr. बोचारेर or VI. cl. बोचार, H. बुचारे.
- 242 बुन् *understand* = Skr. बुष्, IV. cl. बुध्यते, Pr. बुन्कर (Vr. 8, 48), H. बुन्ने
- 243 बेच् *sell* = Skr. बच् *cheat*, VI. cl. विचति, Pass. बच्यते (used actively), Pr. बेचर (H. C. 4, 419, T. V. 3, 8. 4, transl. प्रयच्छति?), E. H. बेच्; or perhaps Skr. वि-चति + इ *spend*, II. cl. चत्येति, Pr. बेचेर or बेचेर?
- 244 बेह् *surround*; see secondary roots.
- 245 बैस् or बरस् *sit* = Skr. उप-विश, VI. cl. उपविशति, Pr. उर्वविस्द् H. बरसे or बैसे (with loss of initial उ, see my Comp. Gramm. § 173).
- 246 बो *sow* = Skr. वप्, I. cl. वपति, Pr. बावर or बोवर (formed like सोवद् of खप्, H. C. 1, 64), H. बोर.
- 247 बोड् *immerse* = Skr. ङ्ङ, Causal ङ्ङयति, Pr. बोडेर or VI. cl. बोडर, H. बोडे.
- 248 बोलाव् or बुलाव् or बलाव् *call* = Skr. वद्, Causal वादयति, Pr. बोलावेर or VI. cl. बोलावर, H. बोलावे, &c. See No. 249.
- 249 बोष् *wheedle* = Skr. बुष्, Causal बोषयति, Pr. बोषेर or VI. cl. बोषर, H. बोषे.
- 250 बोल् *speak* = Skr. वद्, I. cl. वदति, Pr. बोळर (H. C. 4, 2.) or बोळर (Cw. 99), H. बोळै. (cf. No. 245 वप् = बोव्, so वद् = बोल्).†

\* The simple root च्चै would form Pr. भाचर and contracted भाार, after the analogy of टाचर, टार from च्चा, भाचर or भाार from च्चै (Vr. 8, 26); this is born out by Pāli भायति, and by Pr. विञ्चार (H. C. 2, 28 = Skr. वि-ञ्चयति); but in compounds the Pr. form might be ०ञ्चैर or ०ञ्चर, just like ०ठेर or ०ठर in उठेर, उठर form उत्+श्चा (H. C. 4, 17); thus we should have regularly बोञ्चैर or (as ० is short before a conjunct) बुञ्चैर, बुञ्चर.

† This root is usually connected with Skr. वद् by Prākṛit Grammarians, see Cw. p. 99, where बोचर or बोचर, of root वच्, is mentioned as an analogous formation. Now the latter is derived from the passive \*बुच्यते (उच्यते), in an active sense, as appears from H. C. 4, 161. Similarly, I am inclined to derive बोळर from the passive \*बुर्थते (for बुयते of root ङ्ङ), used actively. The conjunct र्च becomes च, as in पञ्चार्च = पर्यार्च, चोचनचं = चौचनार्थ (Vr. 3, 21).



- 251 मच् *eat, devour* = Skr. मच्, I. cl. मचति, Pr. मचद्, H. मचै.
- 252 मच् *worship* = Skr. मच्, I. cl. मचति, Pr. मचद्, H. मचै.
- 253 मच् or माच् *flee* = Skr. मञ्च् *break*, Passive मच्यते (used actively), Pr. मच्यद्, H. मच्यै or माच्यै.
- 254 मञ्च् *break* = Skr. मञ्च्, VII. cl. मञ्चति, Pr. VI. cl. मञ्चद् (H. C. 4, 106), H. मञ्चै.
- 255 मच् *speak* = Skr. मच्, I. cl. मचति, Pr. मचद् (H. C. 4, 239), H. मचै.
- 256 मर् *fill* = Skr. मर्, III. cl. विभर्ति and I. cl. भरति, Pr. मरद् (cf. Spt. 288 भरति), H. मर.
- 257 मव् or भौ *revolve* = Skr. भव्, I. cl. भवति, Pr. भवद् (H. C. 4, 161) or भवरद् (cf. H. C. 4, 401), H. भवै or भौरे. See No. 134 वव् or भौ.
- 258 मञ्च् *float* = Skr. ष्ट'ञ्च्, I. cl. ष्ट'ञ्चते, Pr. मञ्चद्, H. मञ्चै.
- 259 माच् *see* = Skr. मच्, X. cl. मालयते, Pr. माहृद् or VI. cl. माहृद्, H. माह्यै.
- 260 माच् *appear* = Skr. माच्, I. cl. माचते, Pr. माचद् (H. C. 4, 203), H. माचै. Pr. has also the form मिसद् which is preserved in the Hindi root मिसद् *dazzle*.
- 261 भौच् *be afflicted* = Skr. भिच् *break*, Passive भिच्यते, Pr. भिच्यद्, H. भौच्यै. See No. 234. Or from अभि-चर्द् *afflict*, Pass. अभ्यर्चते, Pr. अभिच्यद्, H. भौच्यै (with loss of च, see my Comp. Gramm. § 172).
- 262 भौच् *be wet*; see secondary roots.
- 263 भुञ्च् *eat* = Skr. भुञ्च्, VII. cl. भुञ्चति, Pr. VI. cl. भुञ्चद् (H. C. 4, 110), H. भुञ्चै.
- 264 भुञ्च् *fry*; see secondary roots.
- 265 भेच् *close*, for वेच् with transposed aspiration, see No. 244.
- 266 भेट् *meet, visit* = Skr. अभि-चर्द्, I. cl. अभ्यर्चति, Pr. च्छद्, H. भेटै (with loss of initial च; and with ए for इ; see my Comp. Gramm. §§ 148, 172).
- 267 मच् *be raised up, be made, be stirred up, be excited* = Skr. मञ्च् or मच्, Passive मच्यते, Pr. मचद् (H. C. 4, 230 where it is referred to the Skr. root मच्), H. मचै. From it are derived many Hindi nouns, all meaning lit. "an erection", माचा or मचा or मचान or मचाचा *a large bedstead or stage*, मचिय *a small bed, stool*, मच् *drowsiness*; also many secondary roots, as मचमच् *creak in the joints* (as a bedstead, &c.), मचच् *creak or pain in the joints*, मचकाच् *wink*, मचच् or मचकाच् *be fidgety, be perverse, feel nausea*.
- 268 मञ्च् *clean* = Skr. षञ्च्, II. cl. मर्चति and I. cl. षञ्चति, Pr. मञ्चद् (whence Skr. R. मञ्च् X. cl.), H. मञ्चै.
- 269 मच् *cover* = Skr. षच्; see secondary roots.

- 238 बुझ् *be extinguished* = Skr. वि-श्व-घ्, I. cl. श्व-शायति, Pr. वोळ्नेर or वोळ्नेर (or बु०), H. बुझे. See Weber Spt. p. 32.\*
- 239 बुड् or बुड् *dive, sink* = Skr. ब्रुड्, VI. cl. ब्रुडति Pr. बुडुर (H. C. 4, 101), H. बुडे or बुडे or W. H. transposed बुडे or बुडे.
- 240 बुत् *be extinguished* = Skr. वि-श्व-एत् *come to an end*, I. cl. श्व-शान्ते, Pr. व-वन्तर or वोनर or बुनर, H. बुते. Compare H. वली = वलिका *light*, lit. *wick*.
- 241 बुहार *gather, sweep* = Skr. वि-श्व-ह, Causal श्व-हारयति, Pr. वोहारेर or VI. cl. वोहारद्, H. बुहारै.
- 242 बुझ् *understand* = Skr. बुध्, IV. cl. बुध्यते, Pr. बुझ् (Vr. 8, 48), H. बुझे
- 243 बेच् *sell* = Skr. बच् *cheat*, VI. cl. विचति, Pass. बच्यते (used actively), Pr. बेचर (H. C. 4, 419, T. V. 3, 3. 4, transl. प्रयच्छति?), E. H. बेच; or perhaps Skr. वि-चति + र *spend*, II. cl. चत्येति, Pr. वेचेर or वेचर?
- 244 वेड् *surround*; see secondary roots.
- 245 बैस् or बरस् *sit* = Skr. उप-विश्, VI. cl. उपविशति, Pr. उपविशर H. बरसे or बैसे (with loss of initial उ, see my Comp. Gramm. § 173).
- 246 बो *sow* = Skr. वप्, I. cl. वपति, Pr. बोवर or वोचर (formed like सोवर of रूप, H. C. 1, 64), H. वोर.
- 247 बोड् *immerse* = Skr. ब्रुड्, Causal ब्रुडयति, Pr. बोडेर or VI. cl. बोडर H. बोडे.
- 248 बोलाव् or बुलाव् or बलाव् *call* = Skr. बद्, Causal बादयति, Pr. बोलावेर or VI. cl. बोलावर, H. बोलावै, &c. See No. 249.
- 249 बोष् *wheddle* = Skr. बुष्, Causal बोषयति, Pr. बोषेर or VI. cl. बोष H. बोषै.
- 250 बोल् *speak* = Skr. वद्, I. cl. वदति, Pr. बोळर (H. C. 4, 2.) or बोल् (Cw. 99), H. बोले. (cf. No. 245 वप् = वोव्, so वद् = वोल्).†

\* The simple root घ् would form Pr. भाचर and contracted भाऱ, after the analogy of टाचर, टाऱ from श्या, भाचर or भाऱ from घ् (Vr. 8, 26); this is blocked out by Pāli भायति, and by Pr. विज्भाऱ (H. C. 2, 28 = Skr. वि-चायति); but compounds the Pr. form might be •भेऱ or •भऱ, just like •उरे or •उऱ in उरेऱ, उऱ form उत् + श्या (H. C. 4, 17); thus we should have regularly वोळ्नेर or (as *o* is short before a conjunct) बुळ्नेर, बुळ्नेर.

† This root is usually connected with Skr. वद् by Prākṛit Grammarians, see Cw. p. 99, where वोचर or वोचर, of root वच्, is mentioned as an analogous formation. Now the latter is derived from the passive \*वच्यते (उच्यते), in an active sense, as appears from H. C. 4, 161. Similarly, I am inclined to derive बोळर from the passive \*वुच्यते (वुच्यते) of root ब्रु, used actively. The conjunct र् becomes ञ, as in पञ्चार्य = पञ्च-चार्य and लोचनञ् = लोचनार्थ (Vr. 3, 21).

- 251 मच् *cut, devour* = Skr. मच्, I. cl. मचति, Pr. मचर, H. मच्.
- 252 मच् *worship* = Skr. मच्, I. cl. मचति, Pr. मचर, H. मच्.
- 253 मच् or माच् *flee* = Skr. मञ्च् *break*, Passive मचते (used actively), Pr. मचर, H. मच् or माच्.
- 254 मञ्च् *break* = Skr. मञ्च्, VII. cl. मचति, Pr. VI. cl. मचर (H. C. 4, 106), H. मञ्च्.
- 255 मच् *speak* = Skr. मच्, I. cl. मचति, Pr. मचर (H. C. 4, 239), H. मच्.
- 256 मर *fill* = Skr. मर, III. cl. मरति and I. cl. मरति, Pr. मरर (cf. Spt. 288 मरति), H. मर.
- 257 मर or मो *revolve* = Skr. मर, I. cl. मरति, Pr. मरर (H. C. 4, 161) or मवर (cf. H. C. 4, 401), H. मर or मारे. See No. 134 मर or मो.
- 258 मञ्च् *float* = Skr. मञ्च्, I. cl. मञ्चते, Pr. मञ्चर, H. मञ्च्.
- 259 माच् *see* = Skr. मच्, X. cl. माचयते, Pr. माचरे or VI. cl. माचर, H. माच्.
- 260 माच् *appear* = Skr. माच्, I. cl. माचते, Pr. माचर (H. C. 4, 203), H. माच्. Pr. has also the form मिसर which is preserved in the Hindi root मिसर *dazzle*.
- 261 मीच् *be afflicted* = Skr. मिच् *break*, Passive मिसते, Pr. मिसर, H. मीच्. See No. 234. Or from चमि-चदं *afflict*, Pass. चमिचते, Pr. चमिचर, H. मीच् (with loss of च, see my Comp. Gramm. § 172).
- 262 मीच् *be wet*; see secondary roots.
- 263 मञ्च् *cut* = Skr. मञ्च्, VII. cl. मञ्चति, Pr. VI. cl. मञ्चर (H. C. 4, 110), H. मञ्च्.
- 264 मच् *fry*; see secondary roots.
- 265 मच् *close*, for वेच् with transposed aspiration, see No. 244.
- 266 मच् *meet, visit* = Skr. चमि-चदं, I. cl. चमिचति, Pr. चमिचर, H. मच् (with loss of initial च; and with र for द; see my Comp. Gramm. §§ 148, 172).
- 267 मच् *be raised up, be made, be stirred up, be excited* = Skr. मञ्च् or मच्, Passive मचते, Pr. मचर (H. C. 4, 230 where it is referred to the Skr. root मच्), H. मच्. From it are derived many Hindi nouns, all meaning lit. "an erection", माचा or मचा or मचान or मचाला a large bedstead or stage, मचिस a small bed, stool, मच् *drowsiness*; also many secondary roots, as मचमच् *creak in the joints* (as a bedstead, &c.), मचक् *creak or pain in the joints*, मचकाच् *crink*, मचल् or मचलाच् *be fidgety, be perverse, feel nervous*.
- 268 मञ्च् *clean* = Skr. मञ्च्, II. cl. मञ्चति and I. cl. मञ्चति, Pr. मञ्चर (whence Skr. R. मञ्च् X. cl.), H. मञ्च्.
- 269 मच् *cancer* = Skr. मच्; see secondary roots.

- 270 मन् *be propitiated* = Skr. मन्, Causal Passive मान्यते, Pr. मन्द्, H. मने. See No. 277.
- 271 मर् *die* = Skr. म्, VI. cl. म्रियते, but Vedic also I. cl. मरति, Pr. मर्द् (Vr. 8, 12), H. मरे.
- 272 मद् *rub* = Skr. म्, IX. cl. मद्गति Pr. VI. cl. मद्द् (Vr. 8, 50), H. मदे.
- 273 मच् *churn* = Skr. मच्, I. cl. मचति, Pr. मच्द् (cf. Dl. 53), H. मचे.
- 274 मां *ask for* = Skr. मार्म्, X. cl. मार्जयति and I. cl. मार्गति, Pr. मय्यद् (Spt. 71), H. मयै. Cp. Skr. R. म्, IV. cl. म्ययति, which would give the Pr. मय्यद् equally well; but the denom. R. मार्म् is the more probable source, as Pr. and Gaud. have a preference for denominative verbs.
- 275 माञ् *scour* = Skr. माञ्, X. cl. माजयति (or R. म्, X. cl. मार्जयति, see remarks on No. 274), Pr. मंजेद् or VI. cl. मंजद्, H. मांजे.
- 276 माद् or माद् *rub* = Skr. म्, IX. cl. मद्गति or I. cl. मर्दति, Pr. मद्द् (H. C. 4, 126), H. मादे or मादे.
- 277 मान् *honor, heed* = Skr. मन्, Causal मानयति, Pr. मानेद् or VI. cl. मानद्, H. माने, See No. 270.
- 278 माप् or माप् *measure* = R. मा, Causal Passive माप्यते (used actively), Pr. माप्यद्, H. मापै. The form माप is either a mere corruption of माप्, or it may be similarly derived from the Causal Passive माप्यते (of root म्), Pr. मप्यद्, H. मापै.
- 279 मार *beat, kill* = Skr. म्, Causal मारयति, Pr. मारेद् (H. C. 4, 337) or VI. cl. मारद् (H. C. 3, 153), H. मारे.
- 280 मिच् *meet* = Skr. मिच्, VI. cl. म्रियति, Pr. म्रियद् (H. C. 4, 332), H. म्रियै.
- 281 मिच् *be pulverised* = Skr. म्, VI. cl. म्रियति, Pr. म्रियद्, H. म्रियै.
- 282 मीच् or मीच् *wink* = Skr. मिच्, future म्रियति (used in sense of present), Pr. म्रियद् or म्रियद्, H. मीदे or (corrupt) मीदे. See introductory remarks pp. 37—40, and No. 175.
- 283 मीञ् or मीञ् *rub* = Skr. म्, II. cl. म्रियति or I. cl. म्रियति, Pr. म्रियद्, H. मीजे or मीजे.
- 284 मूच् *shave* = Skr. मूच्, I. cl. म्रियति, Pr. मूच्द् (H. C. 4, 115), H. मूदे.
- 285 मूच् *steal* = Skr. मूच्, I. cl. म्रियति, Pr. मूच्द् (T. V. 2, 4. 69), H. मूदे.
- 286 मोद् *allure* = Skr. मुच्, Causal मोचयति, Pr. मोचेद् or VI. cl. मोचद्, H. मोदे.
- 287 रच् *keep, place* = Skr. रच्, I. cl. रचति, Pr. रच्यद् (H. C. 4, 439), H. रचे.
- 288 रच् intr. *be made* or tr. *make* = Skr. रच् *make*, Passive रच्यते (used actively), Pr. रच्यद् (cf. H. C. 4, 422, 23 रचति. Spt. 363 रचिच् = रचित), H. रचे.

- 289 रम् *roam, enjoy* = Skr. रम्, I. cl. रमते, Pr. रमद् (H. C. 4, 168), H. रमै.
- 290 रम् *stop, remain* = Skr. रम्, Passive रम्यते Pr. रमद्, H. रमै (for रमै)\*
- 291 राम् *be adorned* = Skr. रंज् or रज्, IV. cl. रज्यति, Pr. रज्जद्, H. राजै
- 292 रौष् or रौष् *cook* = Skr. रष्, Causal रज्यति, Pr. रषेद् or VI. cl. रषद्, H. रौषै or (corr.) रौषै.
- 293 रिष् *be vexed* = Skr. रिष्, IV. cl. (or Pass.) रिष्यते, Pr. रिष्यद्, H. रिषै.
- 294 रष् *be agreeable* = Skr. रष्, Passive रष्यते, Pr. रषद् (H. C. 4, 341), H. रषै.
- 295 रष् intr. *be fixed, stop* = Skr. रष्, Causal Passive रोष्यते, Pr. रोष्यद् or रष्यद्, H. रषै.
- 296 रष् or रष् *be angry* = Skr. रष्, IV. cl. रष्यति, Pr. रष्यद् or रषद् (Vr. 8, 46), H. रषै or रषै; cf. No. 302.
- 297 रंद् or रंद् or रौद् or रौद् *trample on*, probably a corrupt spelling of the following, No. 298.
- 298 रंष् or रंष् or रौष् or रौष् *enclose, restrain* = Skr. रष्, VII. cl. रष्यति, Pr. रषद् (Vr. 8, 49), H. रंषै or रंषै or रौषै or रौषै.
- 299 रंष् *creep* = Skr. रंष्, I. cl. रंष्यति, Pr. रंषद् or रंष्यद् (H. C. 4, 259), H. रंषै.
- 300 रोष् *weep* = Skr. रद्. II. cl. रोदिति, Vedic also VI. cl. रदति, Pr. रदद् (H. C. 4, 226. 238) or रदद् (Spt. 311) or I. cl. रोवद् (H. C. 4, 226. 238) or रोवद् (K. I. 4, 69), H. रोवै or रोरे.
- 301 रोष् *roll, plan* = Skr. लुष्, I. cl. लोष्यति, Pr. लोषद्, H. रोळै† See Nos. 313, 314.
- 302 रोष् *be angry* = Skr. रष्, Vedic I. cl. रोषति, Pr. रोषद्, H. रोषै; cf. No. 296.
- 303 लष् *see* = Skr. लष्, I. cl. लष्यते, Pr. लष्यद्, H. लषै.
- 304 लम् *be applied* = Skr. लम्, Passive लम्यते, Pr. लम्यद् (Vr. 8, 52), H. लमै.
- 305 लंष् or लौष् *jump over* = Skr. लंष्, I. cl. लंष्यति, Pr. लंषद्, H. लंषै or लंषै.
- 306 लद् or E. H. लद् *dispute, fight* = Skr. लद्, X. cl. लद्यति, Pr. लदद्

\* The derivation is somewhat obscure; but it can hardly be referred (as Bs. III, 40) to the Skr. root रष् which has a very different meaning "desert". The derivation from रष् is supported by the Maráthí form राष् = र.ष्. On the change of र्ष् to र्ष्, see my Comp. Gramm. § 116.

† There is a large number of Skr. roots, all closely connected in meaning; viz. रद्, रद्, रोद्, रोद्; लुद्, लुद्, लुष्, लोष्, &c.

- or VI. cl. लखद्, W. H. लखे or E. H. लखै.
- 307 लश् or लान् shine, be fit = Skr. लस, I. cl. लसति or X. cl. लासयति, Pr. लसर or लासर, H. लखै or लाखै.
- 308 लश् find, avail, get on well = Skr. लभ्, I. cl. लभते, Pr. लवर (H. C. 4, 335), H. लखै.
- 309 लाज् feel ashamed = Skr. लज्, I. cl. लज्यति, Pr. लज्जर (H. C. 4, 103), H. लाजै
- 310 लिख् write = Skr. लिख्, VI. cl. लिखति, Pr. लिखद्, H. लिखै The ordinary Pr. root लिख् (H. C. 1, 187 लिखद्) does not exist in Hindi.
- 311 लिप् be smeared = Skr. लिप्, Passive लिप्यते, Pr. लिप्यद्. H. लिप्यै.
- 312 लोप् or लेप् smear = Skr. लिप्, VI. cl. लिप्यति, Pr. लिप्यद् (H. C. 4, 149), H. लोप्यै or लेप्यै. As to the change of र् to र्, see my Comp. Gramm. § 148.
- 313 लुट् roll = Skr. लुट्, VI. cl. लुटति, Pr. लुटर, H. लुट्टै. See Nos. 301, 314, 317.
- 314 लुट् roll = Skr. लुट्, VI. cl. लुटति, Pr. लुटर, H. लुट्टै.
- 315 लूट् or लूट् rob = Skr. लूट् or लुट् I. cl. लुट्यति or लुट्यति, Pr. लुटर or लुट्टर, H. लूट्टै or लूट्टै.
- 316 ले take = Skr. लभ्, I. cl. लभते, Pr. लवर or लेर (H. C. 4, 238), H. लेय् or ले. The syllable लव् is contracted into ले; similarly कव् speak is sometimes pronounced के, and सव् bear, से.
- 317 लोट् roll about = Skr. लुट्, VI. cl. लुटति, Pr. लोट्टर (H. C. 4, 146 in the sense "rolling about in sleep"), H. लोट्टै.
- 318 लोभ् be enamoured = Skr. लभ्, IV. cl. लुभति, Pr. लुभ्यद् (H. C. 4, 153), H. लोभ्यै. As to the change of उ to ओ, see my Comp. Gramm. § 148.
- 319 वार् surround = Skr. वृ, Causal वारयति, Pr. वारेर or VI. cl. वारद्, H. वारै.
- 320 चक् can = Skr. ब्रक्, Passive ब्रज्यते (used actively), Pr. चक्कर (Vr. 8 52), H. चक्कै.
- 321 संहार or संहार् (or समार्) destroy = Skr. सन्-हृ, Causal संहारयति, Pr. संहारेद् or संहारेद् (cf. H. C. 1, 264) or VI. cl. संहारद् or संहारद्, H. संहारै or संहारै (or समारै). Or a denominative of संहार.
- 322 संक् collect = Skr. सन्-धि, Passive संचीयते (used actively), Pr. संचेद् (cf. H. C. 4, 241 उचेद्) or VI. cl. संचद् (as उचद् for उचद्), H. संच्यै.
- 323 संद् or सद् be combined = Skr. सन्-स्था, Passive संस्थीयते (used actively), Pr. संठेद् or VI. cl. संठद् (like उठेद् and उठद्), H. संठै or (corr.) सठै.

- 324 रु or र् *rot* = Skr. रु (or रु), I. cl. रीति, but Vedic also रुति, Pr. रुरु (H. C. 4, 219; in Vr. 8, 51 it is ascribed to रु), W. H. रु or E. H. रु.
- 325 रुतु *persecute, torment* = Skr. रु-तु, Causal रुतयति, Pr. रुतुवेर or VI. cl. रुतुवे, H. रुतुवे.
- 326 रु *leak* = Skr. रु, I. cl. रुते, Pr. रुद, H. रुदे. As to elision of the nasal, see my Comp. Gramm. §§ 143, 146. See No. 353.
- 327 रुतु or रुतु or रुतु *sustain* = Skr. रु-तु, Causal रुतयति, Pr. रुतुवेर or VI. cl. रुतुवे, H. रुतुवे, &c. Or demon. root of रुतु.
- 328 रुतु *be contained* = Skr. रु-तु, V. cl. रुतुते, Pr. X. cl. रुतुवेर (H. C. 4, 142) or VI. cl. रुतुवे, H. रुतुवे. See No. 172.
- 329 रुतु or रुतु *understand* = Skr. रु-तु, IV. cl. रुतुते, Pr. रुतुवेर, E. H. रुतुवे or W. H. रुतुवे. See No. 242.
- 330 रु *issue, be ended* = Skr. रु, I. cl. रुति, Pr. रुरु (Vr. 8, 12), H. रुदे.
- 331 रुतु *commend* = Skr. रुतु, I. cl. रुतुते, Pr. रुतुवेर (H. C. 2, 101 has रुतुवेर?). H. रुतुवे.
- 332 रुतु *pierce* = Skr. रुतु or रुतु, I. cl. रुतुति or रुतुति, Pr. रुतुवे, H. रुतुवे.
- 333 रुतु or रुतु or रुतु *prepare* = Skr. रु-तु, Causal रुतयति, Pr. रुतुवेर or VI. cl. रुतुवे, H. रुतुवे, &c.
- 334 रुतु *endure* = Skr. रुतु, I. cl. रुतुते, Pr. रुतुवे (H. C. 1, 6), H. रुतुवे.
- 335 रुतु *arrange* = Skr. रुतु + रु, I. cl. रुतुति, Pr. रुतुवेर (H. C. 4, 259 = Skr. रुतुति, in H. C. 4, 82 also रुतुवेर), E. H. रुतुवे.
- 336 रुतु *settle* = Skr. रुतु, Causal रुतयति, Pr. रुतुवेर (of Spt. 188 रुतुवेर) or VI. cl. रुतुवे (cf. Spt. 260 रुतुवे), H. रुतुवे. The form रुतु does not occur in Hindi.
- 337 रुतु *accomplish* = Skr. रुतु, Causal रुतयति, Pr. रुतुवेर or VI. cl. रुतुवे, H. रुतुवे.\*
- 338 रुतु *pierce* = Skr. रुतु, Causal रुतयति, Pr. रुतुवेर or VI. cl. रुतुवे; H. रुतुवे. Or from Causal of रुतु, see No. 332.
- 339 रुतु *threaten, distress* = Skr. रुतु, Causal रुतयति, Pr. रुतुवेर or VI. cl. रुतुवे (H. C. 4, 197 where however it is = रुतुते), H. रुतुवे.
- 340 रुतु *sew* = Skr. रुतु, IV. cl. रुतुति, Pr. VI. cl. रुतुवेर or रुतुवेर, H. रुतुवे. H. C. 4, 230 gives रुतुवे which would be रुतुवे in H., but it does not exist; there is, however, another reading रुतुवे, H. रुतुवे which does exist, see No. 342.
- 341 रुतु *learn* = Skr. रुतु, I. cl. रुतुते, Pr. रुतुवेर (cf. Spt. 353), H. रुतुवे.
- 342 रुतु or रुतु or रुतु *irrigate* = Skr. रुतु, VI. cl. रुतुति, Pr. रुतुवेर,

\* The root means also "polish" (by rubbing, striking); perhaps this is the रुतु mentioned by H. C. 4, 84 as equivalent to the Skr. रुतुति,

- (H. C. 4, 239) or सिखर (H. C. 4, 230), H. सौंवे or सीवे or (corr.) सौंवे (cf. Vr. 2, 41 वण० = वण०, Ls. 199.)
- 343 सीज *exude, sweat* = Skr. सिद्, IV. cl. सिद्यति, Pr. सिखर (H. C. 4, 224), H. सीजे. See also No. 344.
- 344 सीज *seethe, boil, exude, sweat* = Skr. सी (or ञा), Passive सीयते, Pr. सिखर, H. सीजे.
- 345 सीज *be received (as money) be liquidated (as debt)* = Skr. सि, Passive सीयते, Pr. सिखर, H. सीजे.
- 346 सुधार *adorn* = Skr. सु-ध, Causal सुधारयति, Pr. सुधारेद or VI. cl. सुधार, H. सुधारे.
- 347 सुन् *hear* = Skr. सु, V. cl. श्रुयति, Pr. VI. cl. सुवर (Vr. 8, 56), H. सुने.
- 348 सुन् *remember* = Skr. सु, I. cl. स्मरति, Pr. सुमरद (Vr. 8, 18), H. सुमरे.
- 349 सुहाव् *be agreeable* = Skr. सुह, X. cl. सुहयति Pr. सुहावेद (Spt. 169) or VI. cl. सुहाव, H. सुहावे.
- 350 सूँव *smell at* = Skr. सम्-चा-व्रा, I. cl. समाञ्जिघ्रति or II. cl. समाञ्जति, Pr. समवेद or VI. cl. समव, H. सूँवे.\*
- 351 सूँव *swell* = Skr. सि, Passive सूँवते, Pr. सुखर, H. सूँजे.
- 352 सुम् *appear* = Skr. शुप्, IV. cl. शुष्यति, Pr. सुखर, (cf. H. C. 4, 217), H. सूँजे.
- 353 सेंदु *irrigate* = Skr. संदु, Causal संदुयति, Pr. सिंदेर or VI. cl. सिंदर, H. सेंदे cf. No. 326.
- 354 सेव् or सेव् *serve, worship* = Skr. सेव्, I. cl. सेवते, Pr. सेवर (H. C. 4, 396), H. सेवे or सेवे (with euphonic व्, see my Comp. Gramm. § 69).
- 355 सोव् *regret, meditate* = Skr. शव्, Passive शवते (used actively) Pr. सुवर, H. सोवे.
- 356 सोव् *shine, be fit* = Skr. शम्, I. cl. शोभते, Pr. सोवर (H. C. 1, 187), H. सोवे.
- 357 सौप *deliver* = Skr. सम्-प, Causal सम्पयति, Pr. सम्पेद or VI. cl. सम्प, H. सौपे. See No. 349, footnote.
- 358 वन् *kill* = Skr. वन्, II. cl. वनि, but Vedic also I. cl. वनति, Pr. ववर (H. C. 4, 418), H. वने.
- 359 वर *take away* = Skr. व, I. cl. वरति, Pr. वरद (H. C. 4, 234), H. वरे.

\* •व्रा would form •वेद or वर in Pr., just as •डेर or •डर of •स्था; and सम् would contract to सूँ in Hindi, just as in सौंवे for Pr. सम्प, see No. 357; the intermediate form being सवग्वर (cf. H. C. 4, 397). The root, however, might be derived from Skr. शिष्, I. cl. शिषति, Pr. शिवर; only the Hindi ought to be सौंवे; and the change of ड to व would be very anomalous. (Dr. R. Mitra in his vocabulary quotes वे शब्दापादानं ?).



- 360 हरिस् or हरस् *be glad* = Skr. हृष्, I. cl. हर्षति, Pr. हरिस् (Vr. 8, 11; perhaps denom. of हरिस् = हर्ष Vr. 3, 62), E. H. हरिस् or W. H. हरिस्. See No. 209.
- 361 हलप् *toss about* = Skr. कृष्, (Causal Passive कृष्णयते), Pr. हलप्, H. हलपै.
- 362 हवा *scream* = Skr. ह्वे, I. cl. ह्वयति, Pr. VI. cl. हवाप् or (contr.) हवाद्, H. हवाच्.
- 363 हंस् or हांस् *laugh* = Skr. हस्, I. cl. हसति, Pr. हस् (T. V. 2, 4. 69) or हसद् (Passive), H. हंस् or हंस्.
- 364 हांप् or हांस् *blow* = Skr. ह्वा, Causal ह्वायति, Pr. हंप् or VI. cl. हंप् or हंप्, H. हांप् or (corr.) हांप्.
- 365 हात् intr. *shake* = Skr. कृष्, Passive कृष्ते (used actively), Pr. हत्, H. हात्. See No. 68.
- 366 हिस् intr. *shake* = Skr. कृष्, I. cl. कृषति, Pr. VI. cl. हिर or हिस्, H. हिस्.
- 367 इन् *sacrifice* = Skr. इ, V. cl. इजोति, Pr. VI. cl. इत् or इत् (H. C. 4, 241 where it is referred to Skr. root इ), H. इन्.
- 368 इद् *drive, goad* = Skr. इद्, go, Causal इदयति, Pr. इद् or VI. cl. इद्, H. इद्.
- 369 हो *be* = Skr. हू, I. cl. भवति, Pr. भव or हव or उव or हो (H. C. 4, 60), H. होच्.

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PART II.—Secondary Roots.

Comp. = compound root; den. = denominative; der. = derivative; N. = noun; P. P. P. = past participle passive.

The Sanskrit equivalents are not given, unless when they actually exist; what theoretically they might have been, has been explained in the introductory remarks; see also my Comparative Grammar, §§ 351—354.

Some of the explanations attempted in this list, are, of course, only tentative; a few such have been indicated by a mark of interrogation.

- 1 comp. अटक् *be hindered, stopped* = Skr. अट् + क्, Pr. अट्क् or अट्क्, H. अट्क्.
- 2 comp. उचक् *be raised, rise* = Skr. उच् + क्, Pr. उचक् or उचक्, H. उचक्.
- 3 comp. उचक् *vomit* = Skr. उच्-वन् + क्, Pr. उचक् or उचक्, H. उचक्.
- 4 comp. वन् or वौक् *vomit* = Skr. वन् + क्, Pr. वन्क् or वन्क्, Ap. Pr. वन्क्, H. वौक् or वौक् (with वौ for वं or वन्, see my Comp. Gramm. § 122).

- 5 der. उखाद् *be pulled out, slip out*, a passive or intransitive, derived from उखाद्, see No. 6.
- 6 den. उखाद् or उखेद् *pull out, uproot* = Skr. P. P. P. उखाह, Pr. उखाहुर (cf. H. C. 4, 187), H. उखाहै (for उखाह, with transferred aspiration, see my Comp. Gramm. § 132) or उखेहै (for उखेहै with change of *a* to *e*, see my Comp. Gramm. § 148). See No. 13.
- 7 den. बोढ् *put on, dress* = Skr. उपवेष्ट, I. cl. उपवेष्टते, Pr. बोवेष्टुर. (cf. H. C. 4, 221), H. बोहै (contracting बोवे to बो). Probably from a P. P. P. of the root विष्.
- 8 comp. कड़क् *crackle, thunder* = Skr. कर्द् + छ, Pr. कडुकरे or कडुकर, H. कड़कै.
- 9 den. कमाव् *earn* = Skr. N. कर्म; Pr. कमावेर or कमावर, (H. C. 4, 111 has कमावर and gives it as a substitute of the root उपमुञ्; the *á* is shortened to *a*, by H. C. 3, 150), H. कमावै.
- 10 comp. कसक् *be painful, be pained* = Skr. कष + छ, Pr. कसकरे or कसकर, H. कसकै.
- 11 der. कट् *be cut*, a passive or intransitive, derived from root काट्, see primary roots, No. 27.
- 12 der. कड् *be pulled out, escape*, a passive or intransitive, derived from root काट्. See No. 13.
- 13 den. काह् *pull out* = Skr. P. P. P. ऊह; Pr. कडुर (H. C. 4, 187), H. काहै.
- 14 comp. सरक् or सडक् *make a tremulous noise, rustle, rattle* = Skr. सरल + छ; Pr. सरलकर or सडकर, H. सरकै or सडकै. There is also a reduplicated root सरसर or सडसड् of the same meaning. They also occur in Maráthí and Panjábí. The primary meaning of the root is; *slip or glide along with a sound*; this is preserved in the Maráthí सरक् or सडक् which is used of the running of a stream, or the crashing of a boat, dragged over gravel, &c. The simple root सड् occurs in Maráthí with its original meaning *be shed, fall off*; also in Panjábí, where however it has become transitive, *carry off*. The change of ल or र to ड or ङ is anomalous; but it already took place in Prákrit; thus in Spt. 44, सडसडर for Skr. सडसडरति, Spt. 195 सडिस for Skr. सडिसित. Perhaps there may be a connection with the root सङ्; compare also the roots सर and सल. See also roots सरक् and फरक्.
- 15 der. नड् *be hollowed, be sunk*, a passive or intransitive, derived from root गाढ्; see No. 16.
- 16 den. नाह् *hollow, bury* = Skr. N. नर्त्, Pr. नडु (Vr. 3, 25), Pr. नडुेर or नडुह, H. नाहै. Or possibly a mere corruption of root नाह्, No. 17, by disaspiration.

- 17 den. गड् *dig in, fix in, bury* = Skr. P. P. P. गड् (of root गड्), Pr. गडर, H. गडे.
- 18 den. मोड़ *mark, brand* = Skr. N. मोड़; Pr. मोदेर or मोहर, H. मोड़े (?); brands being made on the forehead or bosom.
- 19 den. चबराव् *be alarmed, agitated*, perhaps corrupted form मडुवडाव् with the same meaning, a reduplicative or alliterative form, made from मडु = Skr. N. मड़ *noise, cries of alarm* (?).
- 20 den. चिनाव् or चिनिचाव् *be disgusted* = Skr. N. छिन्ना or deminutive छिन्का (of root छ्), Pr. चिन्ना (H. C. 1, 128) or चिन्चिन्ना; Pr. चिन्नावेर or चिन्चिन्नावेर or चिन्नावर or चिन्चिन्नावर, H. चिनावे or चिनिचावे.
- 21 der. चिर् *be collected, surrounded, gather*, a passive or intransitive of root चेर. See primary roots, No. 64.
- 22 comp. चपक् *be compressed, collapse* = Skr. चप or चर्ष + क्, Pr. चपकेर or चपकर, H. चपके.
- 23 comp. चमक् *glitter* = Skr. चमत् + क्, pass. चमत्क्रियते (with active meaning), Pr. चमकेर or चमकर, H. चमके.
- 24 den. चार् *wish*, corrupted for चार्, see No. 40.
- 25 der. चिर् *be torn, split*, a passive or intransitive, derived from root चौर; see No. 81.
- 26 den. चिकनाव् *smooth, polish* = Skr. N. चिकण (or चिकिण; perhaps itself a compound word of चित् *bright* = चिच, and क् = Pr. किर; lit. *made clear*); Pr. चिकणावेर or चिकणावर, H. चिकनावे.
- 27 den. चिडाव् or चिडाव् *abuse, vex* = Skr. P. P. P. चिन् (from root चिप् *abuse*); Pr. चिडावर, H. चिडावे (with transfer of aspiration) or चिडावे (with loss of aspiration). As to the changes of aspiration, see No. 47 डेड़ or डौड़, where it is preserved; also primary root, No. 65 चड् (footnote, p. 45). As to the change of ऩ to च to ड (or डु), compare root कुडाव् from P. P. P. युक्त; and primary roots Nos. 92, 93 जुट् and जोड़्.
- 28 den. चिन्ताव् *make known to, warn, admonish* = Skr. P. P. P. चिन्; Pr. चिन्तावेर or चिन्तावर (cf. S. B. 11, 1), H. चिन्तावे. In Setu-bandha 11, 1 occurs the past participle चिन्तविच (with *a* for *á*, by H. C. 3, 150), which is correctly explained by the commentator as meaning चेतितं *made known to*, or निवृत्तं *restrained, warned* (or निवृत्तं), परितोषितं *admonished, comforted*; (see S. Gdt. pp. 84, 156).
- 29 den. चीत् *paint* = Skr. N. चिच; Skr. चिचयति, Pr. चिचेर or चिचर, H. चीते.
- 30 den. चीन् or चीन् *recognize* = Skr. N. चिञ्, Pr. चिचर (H. C. 2, 50); Skr. चिञ्चयति, Pr. चिचवेर or चिचर, H. चीजे or चीने.
- 31 den. चीर् *tear, cleave* = Skr. N. चीर (*rag*), whence Skr. चीरयति, Pr. चीरेर or चीरर, H. चीरे.

- 32 comp. **बुझ्** *be finished, cease* = Skr. बुज् + क्त; Pr. बुझर (H. C. 4, 177), H. बुझे. H. C. gives it as a substitute of the Skr. root बंज् *fall down, decay*, a synonym of बुज्; so also the commentator to Spt. 323, see Wb. p. 184. The correct derivation from बुज् is given by the commentator on Setubandha 1, 9. The Skr. root बुज् *inflict pain*, X. cl. बुज्जयति, is doubtlessly reintroduced from the Prākṛit. See No. 33.
- 33 comp. **बुझ्** *blunder, miss* = Skr. बुज् + क्त; Pr. बुझर, H. बुझे. This is clearly identical with the former, as regards origin. The original meaning "fall," "drop," (from the truth) would easily lead to "blunder." In this sense it is well-known to Prākṛit; e. g., Spt. v, 323, बुझसंकेषा "blundered or missed meeting"; again Spt. v. 199, Setubandha 1, 9, where the commentary correctly explains it प्रमादे देही रति केचित्, i. e., according to some it is a dead word meaning "blundering" (See S. Gdt., p. 157). See No. 32.
- 34 den. **चोरान्** *steal* = Skr. N. चार or चौर; Pr. चोरावेर or चोरावर, H. चोराने.
- 35 comp. **चौक्** *start (from fright)* = Skr. चमन् + क्त, passive चमन्निवने (used actively), Pr. चमजेर or चमजर, Ap. Pr. चमंजर, H. चौके.
- 36 der. **चन्** *be strained, filter*, a passive or intransitive derived from चान्, No. 38.
- 37 den. **दुज्** *deceive, cheat* = Skr. N. दुज्; Skr. दुज्जयति, Pr. दुजेर or दुजर, H. दुजे.
- 38 den. **दान्** *strain, search* = Skr. P. P. P. दाञ् (of root दाञ्), Pr. \*दजेर or दजेर (La. 199) or दजर, H. दाने (?).
- 39 den. **दाप्** *stamp, print*; an active or transitive derived from root दाप्; perhaps merely another form of root दाप्; see Appendix Nos. 4 and 13.
- 40 den. **दाव्** or **दाव्** *wish* = Skr. N. उदाव्; Pr. उदावेर (cf. H. C. 2, 22) or उदावर, H. दावे or (disaspirated) दावे; or from Skr. N. दावा, Pr. दावारर or दावार, H. दावे (with transferred aspiration) or दावे. As to the elision of initial उ or द, see my Comp. Gramm. § 173 (cf. Addenda); and as to the change of aspiration, *ibidem* § 132.
- 41 comp. **दिडक्** *be dispersed, be scattered* = Skr. विज् + क्त; Pr. दिडजेर or दिडजर, H. दिडके. See No. 46.
- 42 den. **दिक्** *be vexed, take offence*, a passive or intransitive, derived from R. दीक् or देक्, No. 46.
- 43 comp. **दिडक्** *sprinkle* = Skr. स्पृष्ट् + क्त; Pr. दिडजेर or दिडजर, H. दिडके. As to the derivation of दिड from Skr. स्पृष्ट्, see No. 45 दीड; and as to the softening of the final, दीड is to दिक्, as जुड to जोक्, q. v.

- 44 den. चीक *sneeze* = Skr. N. चिका; Skr. चिकार्सन, Pr. चिकोर or चिकार, H. चीके. The word चिका, however, is itself a compound from चित् *sneezing* and क; and the word चित् is probably another form of चुत् *sneezing*, from Skr. root चु *sneeze*.
- 45 den. चीट् or चीट् or चेट् *sprinkle* = Skr. P. P. P. च्युट् *sprinkled*, Pr. चिट् (with चि for च्यु, as in चिचर or चिचर or चिचर, H. C. 4, 182. 257; see also primary roots Nos. 78, 80); Pr. चिटोर or चिटोर, H. चीटे or चीटे or चेटे (on disaspiration see my Comp. Gramm. § 145, Exc. 2; on the *anunásika*, § 149; and on the change of र to र, § 148). Or from Skr. N. चोत् (of root चिच्), see primary root No. 342.
- 46 den. चीच् or चेच् *abuse, vex* = Skr. P. P. P. चित्त *abused*; Pr. चेचेर or चेचेर, H. चेचे or चीचे. See Nos. 27, 42. Probably from चित्त was derived a root चिट्, just as Skr. root च्युट् from चुत्; the causal of चिट् would be चेटि, just as causal चोटि of च्युट्; whence we should have Pr. चेचेर, just as Pr. चोचेर, and H. चेचे just as H. चोचे. The root चिट् which would correspond to च्युट् does not exist in Hindi, except in the compound चिटक, see No. 41. A similar series of roots are चुट् or चूट् and चोच्.\* Possibly also Nos. 43 and 45, may be derived from चित्त.
- 47 den. चीक् *take away, snatch* = Skr. P. P. P. चित्त (of root चिट्), Pr. चितोर or चितोर, H. चीने.
- 48 den. चूट् or चूट् *be let off, be released* = Skr. P. P. P. चित्त, Pr. चुत् (H. C. 2, 138) or चुट् (S. C. 1, 8, 142 चूट्?); Pr. चुचेर or चुचेर, H. चुटे or चूटे. See Nos. 46 and 50. The root चूट् or चुट् has not been adopted into Sanskrit, except in its causal or transitive form चोट्.†

\* There would be the following series of forms :

Skr. चुत्, Pr. चुत् or चुट्; Roots Skr. च्युट्, Pr. च्युट् or च्युट्, H. च्युट् or च्युट्, Caus. चोच्  
 " चित्त, " चित्त, " चिट्; " " चिट्, " चूट्, " चूट्, " चूट्, " चूट्, " चोच्  
 " चित्त, " चित्त, " चिट्; " " चिट्, " चिट्, " चिट्, " चिट्, " चिट्, " चेच्.

The Pr. roots in च् would seem to be the original derivatives from the Skr. P. P. P.; they were reintroduced into Sanskrit with one final ट्, and afterwards gave rise to the alternative Pr. root in च्, by the ordinary phonetic change of ट् to च्. The two alternative Pr. roots in च् and च्, reappear in H. as roots in च् and च्. As to the Skr. root चूट्, see footnote to No. 48. The root चिट् appears to have been little used; it is not mentioned among Skr. roots, nor does it survive in Hindi, except in चिटक, see No. 41.

† The root चूट् does exist in Skr., but it has assumed a somewhat different, though connected meaning "cut" (whence H. चुकी *knife*). The same transition of

- 49 den. **वेद्** *perforate* = Skr. N. **विद्** (of R. **विद्**); whence Skr. **विद्मथि**, Pr. **विदेर** or **विरर**, H. **वेदे**.
- 50 der. **वाद्** *release*, an active or transitive, derived from R. **वृट्** No. 48. Compare Skr. root **वाट्**.
- 51 den. **जुमाव्** *pair off labor* (i. e., *assist another with labor, in expectation of similar assistance being returned hereafter*) = Skr. N. **जुम**, Pr. **जुम** (H. C. 2, 78); Pr. **जुमावेर** or **जुमावर**, H. **जुमावे**. The root comes to mean generally: *be provident, be careful of*.
- 52 den. **जताव्** *make known, warn* = Skr. P. P. **ज्ञा** (of caus. of R. **ज्ञा**); Pr. **जतावेर** or **जतावर**, H. **जतावे**.
- 53 den. **जन्** *germinate* = Skr. N. **जन्**, Pr. **जन्नेर** or **जन्वर** (H. C. 4, 136), H. **जन्ने**.
- 54 den. **जीत्** *overpower, win* = Skr. P. P. **जीत** (of R. **ज्या**); Pr. **जितेर** or **जितर**, H. **जीते**.
- 55 der. **जुद्** *be joined*, a passive or intransitive, derived from root **जोद्** see No. 57.
- 56 den. **जुट्** *unite* = Skr. P. P. **युज्**, Pr. **युज** (H. C. 1, 42) or **जुट्**, (see Nos. 46, 48), Pr. **जुटेर** or **जुटर**, H. **जुटे**. Compare Skr. root **जुट्**.
- 57 der. **जोद्** *join*, an active or transitive, derived from root **जुट्**, see No. 56.
- 58 den. **जोत्** *yoke* = Skr. N. **योज्**, Skr. **योजयति**, Pr. **जोत्तेर** or **जोत्तर**, H. **जोते**.
- 59 den. **जोद्** or **जोव्** or **जो** *see* = Skr. N. **ज्योतिस्** *eye, sight*; Pr. **जोरर** (H. C. 4, 422, 6) or **जोवर** (cf. H. C. 4, 332 **जोवतिरे**), H. **जोरे** or **जोवे** or **जोवे** (with euphonic **व्** and **वृ**, see my Comp. Gramm. § 69).
- 60 comp. **भटक्** tr. *twitch*, intr. *shake* = Skr. **भट + क**; Pr. **भट्तेर** or **भट्तर**, H. **भट्ते**. As to the derivation of **भट**, see primary root **भौट्** No. 96.
- 61 comp. **भपक्** intr. *spring*; tr. *throw on, move to and fro, snatch* = Skr. **भप + क**; Pr. **भपक्ते** or **भपक्तर**, H. **भपक्ते**. Hemachandra 4, 161 notices the corresponding uncompounded verb **भप**, but only as an intransitive "move to and fro" (said to be = Skr. **भसति**). Hindī and Marāṭhī have the same uncompounded verb **भापि**, but as a transitive, "cover with a thatch" (lit., *throw on*, i. e., bundles of

meaning may be observed in another series of Skr. roots, which also are derived from **विप्**. The latter becomes in Pr. **विप** (H. C. 2, 127) or **वुप** (Spt. v. 278) or **वुड्**; whence Pr. den. roots **वुड्** or **वुड्** (H. C. 4, 116 **वुडर** and **वुडर** *he breaks*), H. **वुड्** (**वुड्** does not exist). This root **वुड्** as well as the corresponding causal or transitive forms **वौट्** or **वौड्** have been adopted into Sanskrit. See primary root No. 41.

- grass.)\* As to the derivation of झप, see Appendix No. 6. Hindí has an adverb झप *quickly*; it has also another kind of compound root झपद् with the same meaning as झपक्. On these obscure compound in ड् roots, see my Comp. Gramm. § 354, 2.
- 62 comp. झलक् *shine, glare* = Skr. झल + छ; Pr. झलकर or झलकर, H. झलकै. As to the derivation of झल, see primary root No. 98.
- 63 den. झाँक् *peep, spy* = Skr. N. झञ्ज; Pr. झञ्जकर, H. झाँकै (with loss of initial झ, and disaspiration)?
- 64 comp. झीक् *sigh, lament* = Skr. झीत् + छ; Passive झीजीयते (used actively), Pr. झीकर or झीकर, H. झीकै.
- 65 comp. झुक or झोक *stagger, nod, bend* = Skr. झुम् (acc. sg. neut. झुप) + छ; Pr. झुकर, H. झुकै or झोकै.
- 66 comp. झोक or झीक् *throw, cast* = Skr. झेप (or झप) + छ; Pr. झेकर, H. झोकै or झीकै. As to झे = एव, see my Comp. Gramm. § 122 ?
- 67 der. ठिक् *be propped, stay*, a passive or intransitive, derived from No. 68.
- 68 comp. टेक् *prop, support* = Skr. ताय (of root तै) + छ; Pr. टायकर, H. टेकै ?
- 69 den. ठड् *fix, arrange* = Skr. P. P. P. खड् (of root खम्); Pr. ठडुर or ठडुर, H. ठडै. The hardening of ड् to ठ is probably caused by the influence of the initial ठ. In old Hindí ठडै occurs in the sense of "stopping short", "standing amazed". When the past participle is used as such (not as an element of a denominative verb), the original ड is still preserved in Hindí; thus old Hindí ठाड, modern Hindí ठडा "standing".
- 70 comp. ठडक् or ठिडक् *stop short, stand amazed* = Skr. खड् + छ; Pr. ठडकर, H. ठडकै or ठिडकै. As to the derivation of ठड, see No. 69; as to र् for ञ, see my Comp. Gramm. § 35.
- 71 comp. ठनक् *jingle, tinkle, &c.* = Skr. खन *sounding* + छ; Pr. ठनकर or ठनकर, H. ठनकै. Compare Skr. टंकार *clang, twang, &c.* from ट + छ; ट or ठ means any "sound."
- 72 comp. ठनक् *strut* = Skr. खन + छ; Pr. ठनकर or ठनकर, H. ठनकै. Skr. खन becomes Pr. खंन or ठंन (H. C. 2, 9, whence H. चान् *prop, pillar* and ठान् *place, residence*). The change of ञ to ञ् to न may be observed in the primary roots Nos. 117, 118.
- 73 comp. ठसक् *knock, chip* = Skr. तस + छ, see root ठाँस् No. 10. in Appendix. Hindí has an interjection ठस, imitating the sound of *knocking* or *hammering*; also ठसनी *rammer* (an instrument).
- 74 den. ठर्र् *be fixed, remain*, another form of No. 75; possibly arisen by

\* Panjábí has झंवे, with र् for प्; and झाँप् *thatch*, with र् for प्. The former might be referred to the Skr. root झप्.

a mere transposition, ठङ् *tharṅ* = ठङ्क् *tharṅk* = ठङ्क् *thakar* = ठङ्क् *thakar*. Or the element र may be the same as र or ङ in ठङ्क् or ठङ्क्, &c. (see my Comp. Gramm. § 354, 2), and ठङ् = Pr. ठङ् = Skr. ठङ्क्. Hindi has the noun ठङ्क् *place*.

75 den. ठङ् or ठङ्क् *be fixed, be erect, stand* = Skr. P. P. P. ठङ्क्, Pr. ठङ्क् (H. C. 2, 39); Pr. ठङ्क् or ठङ्क्, H. ठङ्क् or ठङ्क्.

76 den. ठङ् *fear* = Skr. N. ठङ्, Pr. ठङ् (H. C. 8, 217); Pr. ठङ् (H. C. 4, 198), H. ठङ्.

77 den. ठङ् *be hot, burn* = Skr. N. ठङ्, Pr. ठङ् (H. C. 1, 217); Pr. ठङ्क् or ठङ्क्, H. ठङ्क्.

78 comp. ठङ् *cover* = Skr. N. ठङ्क् (acc. sing. neut. ठङ्क् *covering*) + ङ; Pr. ठङ्क् (H. C. 4, 21), H. ठङ्क्. See primary root No. 105.\*

79 der. ठङ् or ठङ्क् *flow, a passive or intransitive of root ठङ्क् or ठङ्क्, see Appendix No. 11.*

80 comp. ठङ्क् or ठङ्क् *be wearied, be fatigued* = Skr. ठङ्क् (acc. sing. neut. ठङ्क्) + ङ; Pr. ठङ्क् (H. C. 4, 370) or VI. cl. ठङ्क् (H. C. 4, 87. 259; where it is said to be a substitute of Skr. ठङ्क् *move slowly from fatigue*), H. ठङ्क् or ठङ्क्. In H. C. 4, 16 the root is given as an equivalent of ठङ्क् *stand*; the Bangálí has ठङ्क् (pronounced *thak*) *stay, remain*. The original meaning of the Hindi is *to come to a stop* (from fatigue). The Skr. passive ठङ्क्ते (= ठङ्क् + क्रीयते) means "to be made firm or rigid, be paralysed, be stopped". The original meaning of "rigidity" is preserved in the Hindi ठङ्क् or ठङ्क् *a congealed lump, a clot*. The stoppage may be owing to fatigue or to wonder; hence Hindi ठङ्क् *stopped or wearied or astonished*. Other derivatives of the Hindi root are ठङ्क् *unwearied, ठङ्क् *weariness, ठङ्क् *perplexed.***

81 comp. ठङ्क् *strike, slap, tap* from ठङ्क् + ङ; as to the derivation of ठङ्क्, see root ठङ्क् in the Appendix No. 13.

\* It might be also derived, as a primary root, from Skr. ठङ्क्, I. cl. ठङ्क्ति, Pr. ठङ्क्क् = ठङ्क्क् (with transfer of aspiration) = ठङ्क्क् (softening and cerebralising ङ). Compare the roots ठङ्क्, ठङ्क्, ठङ्क्, ठङ्क् in the Appendix, which show that the Skr. roots ठङ्क् and ठङ्क् had a tendency in Prákrit to transfer the aspiration (ङ) and cerebralise the initial (ठ). The Skr. root ठङ्क् means *chipping off* (by striking) and *covering*; a similar change of meaning appears in the Hindi root ठङ्क् *cover* from Skr. ठङ्क् *rub, strike*.

† S. Goldschmidt, *Prákritica*, No. 7, p. 5 derives it, as a denominative root, from P. P. P. ठङ्क् of a root ठङ्क्, which he identifies with the root ठङ्क्, and assumes a change of ठङ्क् to ङ. This theory is based on three hypothetical steps: the identity of ठङ्क् and ठङ्क्, the existence of a P. P. P. ठङ्क्, the change of ठङ्क् to ङ. Pischel in *Beszenberger's Beiträge* III, 235 derives it simply from a hypothetical Skr. root ठङ्क्.



- 82 comp. चञ्चद् or चरञ्चद् *tremble, flutter*; probably a mere various pronunciation of चरञ्चद् or चरञ्चद्, q. v.; the interchange of च and ञ is shown by the Pr. चञ्चद् and चरञ्चद् (H. C. 4, 87), and that of च and ञ by चञ्जे and चञ्जे (H. C. 2, 8). There is also a reduplicated root चञ्चञ्चद् or चरञ्चरञ्चद् corresponding to चरञ्चरञ्चद् and चरञ्चरञ्चरञ्चद्.
- 83 comp. चिरञ्चद् *be set, be settled, well postured* (e. g., in dancing) = Skr. चिरञ्च + ञ; Pr. चिरञ्चोद् or चिरञ्चद्, H. चिरञ्चै.
- 84 den. चिराञ्च intr. *settle* (as liquor) = Skr. N. चिरञ्च; Skr. चिराञ्चति Pr. चिराञ्चोद् or चिराञ्चद्, H. चिराञ्चै.
- 85 comp. चुञ्चद् *spit* = Skr. छेञ्च (or छेञ्च) + ञ; Pr. चुञ्चोद् or चुञ्चद्, H. चुञ्चै. As to the contraction of च्च to च्च or च्च, see my Comp. Gramm. § 122.
- 86 den. दञ्चद् or दौञ्चद् *run* = Skr. N. दञ्च, Pr. diminutive दञ्चद्; Pr. दञ्चोद् or दञ्चद्, E. H. दञ्चै or W. H. दौञ्चै. In Chanḍa's Prākṛit Lakṣhaṇa C D, II, 27k, there is noticed a root दञ्चञ्चद् *run about with lowering face* (अतिरञ्चञ्चद् अञ्चञ्चञ्चद् दञ्चञ्चतो नमने दञ्चञ्च); Marāṭhī has both दञ्चञ्च and दञ्च in the same sense; it has also दञ्च *run*; these two roots are probably identical, the change of initial द् to द्च being not uncommon; see H. C. 1, 217.
- 87 comp. द्रञ्चद् intr. *split* = Skr. द्रञ्च + ञ; Pr. द्रञ्चोद् or द्रञ्चद्, H. द्रञ्चै.
- 88 comp. द्रञ्चद् intr. *burn* = Skr. द्रञ्च + ञ; Pr. द्रञ्चोद् or द्रञ्चद्, H. द्रञ्चै.
- 89 den. दुञ्च intr. *pain* = Skr. N. दुञ्च; Skr. दुञ्चति, Pr. दुञ्चोद् or दुञ्चद्, H. दुञ्चै.
- 90 comp. धञ्चद् *blaze, be hot* (from any passion), *be distressed, tremble* (from fear), = Skr. धञ्च + ञ, Pr. धञ्चोद्, H. धञ्चै (for दञ्चै, with transfer of aspiration). There is also reduplicated root धञ्चञ्चद्\*.
- 91 den. धार *pour* = Skr. N. धार; Pr. धारोद् or धारद्, H. धारै.
- 92 comp. धौञ्च or धौञ्चद् *blow, breathe upon* = Skr. धञ्च + ञ; Pr. धञ्चोद् or Ap. Pr. धञ्चोद्, H. धौञ्चै.
- 93 den. नञ्च *dance* = Skr. N. नञ्च; Skr. नञ्चति, Pr. नञ्चोद् or VI. cl. नञ्च (H. C. 4, 230. 2, 30), H. नञ्चै. The Skr. root नञ्च (I. cl. नञ्चति or X. cl. नञ्चति) is adopted from the Prākṛit.
- 94 der. नञ्च *flow, a passive or intransitive, derived from primary root नञ्च* No. 136.
- 95 den. नञ्चद् *flee* = Skr. P. P. P. नञ्च (of R. नञ्च *eject*); Pr. नञ्चोद्, E. H. नञ्चै. Compare Pr. नञ्चोद् (H. C. 4, 200) from Skr. नञ्च.

\* Hindī has a word नञ्च *body*, and नञ्च *arm, strong, sound*. This is probably derived from Skr. नञ्च = Pr. नञ्च = H. नञ्च.

- 96 der. निकल् or निकर् *be pulled out, come out*; a passive or intransitive, derived from root निकाल्. See No. 98.
- 97 der. निकष्. *be expelled, come out*; a passive or intransitive, derived from root निकाल्. See primary root No. 189.
- 98 den. निकाल् or निकार् *pull out, eject* = Skr. P. P. P. निष्कृष्ट; Páli and Pr. निकृष्ट, Pr. निकृष्टर or निकालर, W. H. निकालै or E. H. निकारै. As to the change of ड to ष्ट, see my Comp. Gramm. § 115.\*
- 99 den. निखोर् or निखोर् *peel, extract* = Skr. P. P. P. निष्कृष्ट; Pr. निकोष्ट (with *o* for *u*, by H. C. 1, 116) or निष्कोष्टर (with transfer of aspiration, as in चक्कोष्टर H. C. 4, 188 = चकोष्टर, a denominative of चाकुष्ट *extracted*).
- 100 den. निकोष् *grin* = Skr. N. निकुञ्जय (from root नि + कु + जि); Skr. निकुञ्जयते, Pr. निकोञ्जर or VI. cl. निकोञ्जर (cf. H. C. 1, 116), H. निकोञ्जे. See my Comp. Gramm. § 148.
- 101 den. निगल् *swallow* = Skr. N. निगल्; Pr. निगलेर् or VI. cl. निगलर, H. निगले. It might, however, be a primitive root = Skr. नि + ग्, VI. cl. निगलति, with change of र् to ल.
- 102 den. निपट् *terminate* = Skr. N. निप्यति (from root निष् + पट्); Pr. निपटैर् or VI. cl. निपटै, H. निपटै (?). As to the change of dental त्त to cerebral ट्ट, compare Pr पट्टर् for Skr. पत्तन्, Vr. 3, 23; cf. also Pr. पट्टर् for Skr. पत्तति Vr. 8, 51.
- 103 der. निवष् or निम् *be accomplished, succeed*, a passive or intransitive root, derived from the primary root निवाष्, No. 146.
- 104 den. परट् or पैट् *enter* = Skr. P. P. P. प्रविष्ट, Pr. परट्ट (H. C. 4, 340); Pr. परट्टै or VI. cl. परट्टर, E. H. परट्टै or W. H. पैटै.
- 105 den. पक्. *ripen* = Skr. P. P. P. पक्, Pr. पक् (H. C. 2, 79); Pr. पक्केर् or पक्कर, H. पक्के.
- 106 den. पकड् *seize* = Skr. P. P. P. प्रकृष्ट; Pr. पकड्टर (cf. H. C. 4, 187), H. पकड्डै (for पकड्डै, with lost aspiration, as in root माड् No. 16, उडाड् No. 6, डाड् No. 75, and others).
- 107 den. पश्चताव् *repent* = Skr. N. पश्चत्ताप; Pr. पश्चत्तावेर् or VI. cl. पश्चत्तावर, H. पश्चत्तावे.
- 108 den. पड् *be paid, be roofed, be watered* = Skr. N. पच or पड् or पड; Pr. पडैर् or VI. cl. पडर, H. पडै. Skr. पच is any "vessel", used for irrigating; पड is the table or leaf on which the accounts of payments are kept; पड means a "roof."

\* So also Bs. I, 354. III, 58. The Hindi root निकाल् is, of course, referable to the Skr. root निष् + कल्; but the latter is most probably itself adopted from the Prákrit; Skr. निष्कालयति = Pr. निकालेर. The Pr. form निष्कालेरि, quoted by Bs. III, 58, is misspelt for निकालेरि.

- 109 den. *पनम् expand, grow, prosper* = Skr. N. प्रपञ्च (of root प्र-पञ्च्), Skr. प्रपञ्चयति, Pr. पपञ्चेद् or पपञ्चद् (cf. Pr. पञ्चाभा = Skr. पञ्चाभार H. C. 2, 42), H. पनयै (transposed from पपनै, see my Comp. Gramm. § 133, see also primary roots Nos. 165, 166).
- 110 den. *पनिषाव् irrigate* = Skr. N. पानीष, Pr. पाणिष्य (H. C. 1, 101), Pr. पाणिष्यावेद् or पाणिष्यावद्, H. पनिषायै (see my Comp. Gramm. § 25).
- 111 den. *परिस् or परस् touch* = Skr. N. स्पर्श, Pr. फरिस् (Vr. 3, 62); Pr. फरिस्द् (H. C. 4, 182), H. परिसै or परसै (with lost aspiration, and change of *i* to *a*; see my Comp. Gramm. §§ 58 note, 180).
- 112 den. *पलट् or पलट् intr. turn over* = Skr. P. P. P. पयँट, Pr. पलट् or पलट् (Vr. 3, 21. H. C. 2, 47), Pr. पलट्टद् or पलट्टद् (H. C. 4, 200), H. पलट्टे or पलट्टे. In H. C. 4, 200. 258 पलट्टत् and पलट्टत् are spelled so; see my Comp. Gramm. § 161.
- 113 den. *परिचान् or परिचान् recognise* = Skr. N. परिचयन्; Pr. परिचयन्वेद् or परिचयन्वेद्, H. परिचयनै or परिचयनै (for परिचयनै; with elided र् and inserted euphonic च्, see my Comp. Gramm. §§ 69, 124) (?).
- 114 der. *पिद्यन् or पिद्यन् intr. dress, put on*, a passive or intransitive, derived from the primary root पिद्यन्वाच् or पिद्यन्वाच्, No. 165.\* See also primary root पद्यिर् No. 166.
- 115 comp. *पिचक् be squeezed, be shrivelled* = Skr. पिच + क्; Pr. पिचक्वेद् or पिचक्वेद्, H. पिचक्के Compare Skr. पिचिड *squeezed*; and as regards the derivation of पिच or पिच, see primary root पीच No. 175. The word has been adopted into Skr. from the Prákrit.†
- 116 den. *पिचस् or फिसस् slip* = Skr. N. पिचिस् or पिचिस् slippery; Pr. पिचिस्वेद् or पिचिस्वेद्, H. पिचिसै or फिसिसै. (transferring the aspiration to च् and changing च् to स; see my Comp. Grammar § 11). See No. 125.
- 117 der. *पिट् be beaten*, a passive or intransitive, derived from root पीट No. 119.
- 118 der. *पिड् be beaten, bruised*, a passive or intransitive, derived from root पीड, No. 121. See also No. I, 184.
- 119 den. *पीट् beat* = Skr. P. P. P. पिट; Pr. पिट्टेद् (Spt. 173) or पिट्टद् (with इ for ट्, as in पलट्टद् for पलट्टद् (H. C. 4, 200), H. पीटै. See No. 121.
- 120 den. *पुकार् call, shout* = Skr. N. सूकार् or पूकार् or पूकार्; Pr. फुकारेद्

\* In Bengálí the root is पिन्च्, which is a denominative of the Skr. P. P. P. पिचद् *dressed*. Possibly the Hindí root may be explained in the same way by a further change of च् to च्.

† In the Skr. word चिपिट *pressed down* a metathesis of च् and च् appears to have taken place.

- or पुकारेद or पुकारद, H. पुकारै. A similar change of ष to ष, in root वरिष् No. 111. An intransitive or passive form of this root occurs in the old Hindí of Chand's Prithiráj Rasau: पुकार् be called.
- 121 den. पेष् *squeeze, beat* = Skr. P. P. P. पिष्ट; see primary root No. 184.
- 122 den. पुन् *revile*, perhaps = Skr. N. पुष्य *blessed*; euphuistically.
- 123 comp. पडक् tr. *separate, winnow*, or intr. *be separated* = Skr. सड + ङ; Pr. पडकेद or पडकर, H. पडके. The Pr. doubles the radical ड; see primary root पड No. 186.
- 124 comp. फरक् or फडक् *tremble* = Skr. स्फर + ङ; Pr. फरकेद or फरकर, H. फरके or फडके. The reduplicated root फरफर् or फुरफुर also occurs. See roots फरक् No. 82 and स्फरक् No. 14.
- 125 den. फिसल् *slip, slide*, see No. 116. For a similar transfer of aspiration on account of change of ष to स, see root ढस् in Appendix No. 8.
- 126 comp. फूक् *blow* = Skr. पूत् + ङ; Pr. फूदेद or फूदर, H. फूके. See H. C. 4, 422, 3. फुक्कित्त, and Spt. 178 फुक्कतत्.
- 127 der. फुक् *be blown*, a passive or intransitive, derived from root फूक् No. 126.
- 128 den. वरट् or वैट *sit* = Skr. P. P. P. उपविष्ट, Pr. उवरट्ट (like परट्ट, No. 104) or वोरट्ट (cf. H. C. 1, 173), H. वरटे or वैटे (as to change of ओ to व, see my Comp. Gramm. § 71). The initial व for व is somewhat anomalous, as such an "expansion" व does not ordinarily harden to व. Another way of explaining the Hindí वरट् is to assume that the initial उ of Pr. उवरट्ट has been dropped (so in my Comp. Gramm § 173, and Bs. I, 179. III, 38); but this does no more obviate the anomaly; for a Pr. व, softened from Skr. प, does not, as a rule, harden in Hindí.
- 129 comp. वक् *talk, chatter* = Skr. वाक् + ङ; Pr. वकर, H. वके. Or possibly a mere corruption for वुक्, Pr. वुकर or वुकर (H. C. 4, 98), Skr. वुक्ति or वुक्कयति a comp. of व्रु + ङ. Hindí does not possess the form वुक्, but it has a derivative of it, वुक्कत्; Maráthí has both वुक् and वुक्कत्.
- 130 den. वण् *read, recite* = Skr. N. वाण; Pr. वणर, H. वणै.
- 131 comp. वचक् *go beyond bounds, stray* = Skr. वचिष् + ङ; Pr. वचिकेद or वचिकर, H. वचके.
- 132 der. विचर् *be spread*, a passive or intransitive, derived from the primary root विचार No. 225.
- 133 den. विराव् *mock, jeer* = Skr. N. विराव *sound, noise*; Pr. विरावेद or विरावर, H. विराव.
- 134 den. विलट् *become bad*, perhaps connected with P. P. P. विलम्बित (विलम्ब ?) *wasted*.
- 135 den. वीट् *scatter, spill* = Skr. P. P. P. विस; Pr. विट्ट (for विट्ट, as पकट्ट for पकट, see No. 112); Pr. विट्टेद or विट्टर, H. वीटै.

- 136 den. *बोत pass* = Skr. P. P. P. *बोत*, Pr. *बित* (like *बिहित* for Skr. *बिहित*, H. C. 2, 99; otherwise the preservation of *त* is not explainable); Pr. *बिनेर* or *बितर*, H. *बोते*.
- 137 den. *बेड़ enclose, surround* = Skr. *बेह*, Causal *बेहवति* or I. cl. *बेहते*, Pr. *बेड़र* (H. C. 4, 51) or *बेड़र* (H. C. 4, 221), H. *बेड़े*. The root is probably a denominative of an anomalous P. P. P. or some other derivative of the root *बिष्* or *बिष्*. The so-called Causal shows its denominative form.
- 138 den. *बडराव्* or *बौराव् go mad* = Skr. N. *बातुल*; Pr. *बाडलावेर* or *बाडलावर*, H. *बाडलावे* or *बौरावे*. See my Comp. Gramm. § 25.
- 139 den. *भग flee* = Skr. P. P. P. *भग*, Pr. *भग्* (cf. H. C. 4, 354), Pr. *भगेर* or *भग्*, H. *भगे*.
- 140 den. *भीष् or भीष् be wet* = Skr. *बिष्*; Pr. *बिष्नेर*, or *बिष्नेर*, H. *भीष्* or *भीष्* (?). As to the loss of initial *ब*, see my Comp. Gramm. 172. Compare the primary root *भीष्* in the Appendix No. 21.
- 141 der. *भुष् be fried, be cooked, a passive or intransitive, derived from भूष्* No. 143.
- 142 den. *भूल or भोल् or भोर forget, blunder* = Skr. P. P. P. *भृ*; Pr. *भृल* (H. C. 4, 177), W. H. *भूले* or *भोले*, E. H. *भूरे* or *भोरे*. Skr. *भृ* = Pr. *भृ* = *भृ* = *भृ*; the change of *u* to *o* caused by the labial *bh*. As to the change of *u* to *o*, see my Comp. Gramm. § 148.\*
- 143 den. *भूष् fry, cook* = Skr. P. P. P. *भूष्* (Pan 8, 2. 44); Pr. *भूषेर* or *भूषर*, H. *भूष्*.
- 144 den. *भृष् cover, gilt (i. e. encase by rubbing on)* = Skr. P. P. P. *भृष्*, Pr. *भृष्* or (disaspirated) *भृष्*; Pr. *भृष्* or *भृष्* (H. C. 4, 126), H. *भृष्*. The Skr. root *भृष् cover* is adopted from the primitive Prākṛit or Pāli *भृष्* (= *भृष्*), whence *भृष् a covering, hut*, H. *भृष्* or *भृष्*. Similarly are formed the roots *भृष्*, *भृष्*, &c.
- 145 den. *भृष् consult* = Skr. N. *भृष्*; Pr. *भृष्* or *भृष्* (cf. H. C. 4, 260 *भृष्*), H. *भृष्* (with elided nasal, see my Comp. Gramm. § 143).
- 146 der. *भृष् be effaced, cease to exist, a passive or intransitive, derived from the root भृष्*, No. 153.
- 147 der. *भृष् be shaved, a passive or intransitive, derived from the primary root भृष्*, No. 284.
- 148 der. *भृष् be closed, a passive or intransitive, derived from the root भृष्*, No. 151.

\* This derivation I owe to S. Goldschmidt, *Prākṛitica*, No. 8, p. 9. Formerly, looking upon *भोल्* or *भोर* as the more primitive form, I was inclined to consider it a denominative of Skr. *भृष्*, whence comes Hindī *भोरा* or *भोला* a *simpleton*.

- 149 den. *die* = Skr. P. P. P. मृत्, Pr. मृच (H. C. 4, 442); Pr. मृचर, H. मृचे.
- 150 den. *discharge urine* = Skr. N. मूत्र; Skr. मूत्रयति, Pr. मुत्तेर or मुत्तर, H. मूत्रे.
- 151 den. *close* (lit. with a seal ring) = Skr. N. मृग; Skr. मुद्रयति, Pr. मुद्देर or मुद्दर, H. मूँदे. See H. C. 4, 401 दिखी मुद् sealed.
- 152 den. *be silent* = Skr. P. P. P. मूज (of root मू); Pr. मूजेर or मूचर, H. मूजे, (or from N. मौन).
- 153 den. *efface* = Skr. P. P. P. मृष्ट, Pr. मिष्टेर or मिष्टर (disaspirated for मिष्टर, cf. Pāli मड् or मड = मृष्ट), H. मेँटे, (with *e* for *i*; see my Comp. Gramm. § 148).
- 154 den. मौल or मौर blossom = Skr. N. मौल; whence मौलयति, Pr. मोलेर or मोलर, W. H. मौले or E. H. मौरै.
- 155 den. मौलाव् or मौराव् blossom = Skr. N. मौल; Pr. मोलावेर or मोलावर, W. H. मौलावे or E. H. मौरावे.
- 156 den. *be attached* = Skr. P. P. P. रक्त, Pr. रक्त्त (H. C. 2, 10); Pr. रक्तेर or रक्कर, H. रक्ते.
- 157 den. *dye* = Skr. N. रंज; Skr. रंजयति, Pr. रंजेर or रंजर, H. रंजे.
- 158 der. *be hindered*, a passive or intransitive, derived from root रोक् No. 162.
- 159 der. रध् or रद्ध *be restrained*, a passive or intransitive, derived from the primary root रँध् No. 298.
- 160 den. रद्ध or रद्ध *be angry* = Skr. P. P. P. रद्ध, Pr. रद्ध (H. C. 4, 414) or रद्ध, Pr. रद्धर or रद्धर, H. रद्धे or रद्धे.
- 161 comp. रोक bray = Skr. रेष् (acc. sg. neut. रेड्) + छ; Pr. रेक्षेर or रेक्षर, H. रेकै.
- 162 comp. रोक् hinder = Skr. रष् (acc. sg. neut. रत्) + छ; Pr. रक्षेर or रक्षर, H. रोकै.
- 163 der. रोप् stop, plant; a transitive or active, derived from primary root रप्, No. 295.
- 164 den. लंगड् limp = Skr. N. लङ्, Pr. diminutive लंगड; Pr. लंगडेर or लंगडर, H. लंगडै.
- 165 den. लव् or लौ reap = Skr. N. लव; Skr. लवयति, Pr. लवेर or लवर, H. लवे or लौरे.
- 166 comp. लुक् disappear, conceal oneself = लुप् + छ; Pr. लुकर (H. C. 4, 55), H. लुकै. The word लुप् properly means "dropping out", "elision"; it is derived from the Skr. root लुप् break. This original meaning of the root is still preserved by the Pr. लुकर, which means both break, cut of, (H. C. 4, 116, where it is said to be =

Skr. *गुह्*) and *disappear, conceal oneself* (H. C. 4, 56, where it is given as an equivalent of the Skr. *निही*) \*

- 167 den. *सुभाव्* or *सुधाव्* *covet, be enamoured with* = Skr. N. *सोभ* ; Pr. *सोभावद्* or *सोधावद्*, H. *सुभावै* or *सुधावै*, (with *u* for *o*, see my Comp. Gramm. § 25).
- 168 der. *सज्* *be adorned, be prepared*, a passive or intransitive, derived from root *साज्*, see Appendix No. 24.
- 169 comp. *सङ्* or *सङ्क्* *get away, disappear, conceal oneself* = Skr. *सञ्* or *सद् + ङ* ; Pr. *सङ्कार* or *सङ्कर*, H. *सङ्कै* or *सङ्कै*. The word *सञ्* means *covering, concealment*. The root *सद्* becomes *सङ्* in Pr. ; see Vr. 8, 51. H. C. 4, 219.
- 170 der. *सष* *be settled*, a passive or intransitive, derived from the primary root *साष्* No. 336.
- 171 den. *संमुहाव्* *be in presence of* = Skr. N. *संमुच* ; Pr. *संमुहावेद्* or *संमुधावद्*, H. *संमुहावै*.
- 172 comp. *सरक्* *be moved, move* = Skr. *सर + ङ* ; Pr. *सरकोद्* or *सरकर*, H. *सरकै*. Possibly it is a mere variety of the root *सङ्क्*.
- 173 den. *सराप्* *curse*, denom. made from the Hindi *सराप* a corruption of the Skr. *श्राप* ; see my Comp. Gramm. § 135.
- 174 der. *साढ* or *साँढ* or *साँढ्* *combine*, a transitive or active, derived from the primary root *संढ*, No. 323.
- 175 den. *शील्* *moisten* = Skr. N. *शीतल* ; Pr. *शीचलेद्* or *शीचलद्*, H. *शीलै*. In the absorption of *a* after *i*, see my Comp. Gramm. § 97.
- 176 der. *सुषर्* *be correct, mend*, a passive or intransitive, derived from the primary root *सुषार्*, see No. 346.
- 177 den. *सुषाव्* *be pleased or give pleasure* = Skr. N. *सुष* ; Pr. *सुषावेद्* or *सुषावद्*, H. *सुषावै*.
- 178 den. *सुषाव्* *be beautiful or make beautiful* = Skr. N. *सोभ* ; Skr. *शोभयति*, Pr. *सोधावेद्* or *सोधावद्*, H. *सुषावै*. This might, however, be a primary root, from the causal of root *शुभ्*.
- 179 den. *सुष्* or *सुष्* *be dry* = Skr. N. *शुष्क*, Pr. *सुष्केद्* or *सुष्कद्*, H. *सुष्कै* or *सुष्कै*.
- 180 den. *सुप्त* *sleep* = Skr. P. P. P. *सुप्त* ; Pr. *सुप्तेद्* or *सुप्तद्*, H. *सुप्तै*.
- 181 den. *सैत्* or *सेत्* *adjust* = Skr. P. P. P. *समाहित*, Pr. *समाहित* (cf. H. C. 2, 99 *निहित* = Skr. *निहित*), Ap. *सर्वाहित* or *सर्वाहित*, H. (contracted) *सैत्* ; whence Pr. *समाहितद्*, H. *सैत्तै* or *सेत्तै*.
- 182 comp. *सन्* *evacuate* = Skr. *सद् + ङ* ; Pr. *सन्द्*, H. *सन्ने* (for *सन्ने*) ?

\* The root *सुक्* might also be derived from *सुक् + ङ*, from the root *सुक्* which (like *सुर्*) means both *cut off* and *disappear*. Or it might be derived from *सुक् + ङ* ; the root *सुक्* meaning *become invisible*.

- 183 comp. बकाब् or बंकाब् *bawl, drive away or keep off* (with shouts) = Skr. बक् + ऊ; Pr. बकावेर or बकावर, H. बकावे or बंकावे. This is a pleonastic form of No. 187.
- 184 den. बंकार् *bawl, drive away or keep off* (with shouts) = Skr. बकार; Skr. बकारयति, Pr. बकारेर or बकारर, H. बंकारै. Connected with roots Nos. 183 and 187.
- 185 हत् *slay* = Skr. P. P. P. हत, Pr. हत (like निदिभ H. C. 2, 99); Pr. हनेर or हनर, H. हने.
- 186 comp. बलक् *move* = Skr. बल + ऊ; Pr. बलकेर or बलकर, H. बलके.
- 187 comp. बांक् *bawl, drive* (with shouts) = Skr. बक् + ऊ; Pr. बकेर or बकर (H. C. 4, 134), H. बांके. See Nos. 183, 184. Probably connected with root मक् or मंक् or भाक् *talk* + ऊ.
- 188 den. चार् *lose, be beaten, be unsuccessful* = Skr. N. चार, Pr. चारेर or चारर, H. चारै. H. C. 4, 31 has चारवर (for चारावर by H. C. 8, 150), said to be = नञति; it is merely a pleonastic form of चारै. Hindi has चरावे or चिरावे.
- 189 comp. धैक् *blow* = Skr. धन + ऊ; Pr. धनकेर or धनकर, Ap. धवंकर, H. धैके (for धैके). See No. 92.

APPENDIX.—Primary Roots.\*

- 1 रैच् or रँच् *pull, attract* = Skr. रा + ऊच्, future राकष्यति (used in the sense of the present), Pr. रायंवर or राइंवर (H. C. 4, 187), H. रँचे or रँचे (with loss of aspiration). See introductory remarks, pp. 39, 40. This root occurs in the shortened form रंच् both in Pr. (H. C. 4, 187 रंवर) and in old Hindi (Prithiraj Rasau 27, 38 रंचे); see No. 2.
- 2 डैच् or डेच् or डेच् or डेच् *pull* = Skr. डच्, future डकष्यति (used in the sense of the present); Pr. कवर or कंवर, H. डेचे, डेचे or डेचे, डंचे (with transfer of aspiration, see my Comp. Gramm. 132). On the inserted nasal, see *ibidem* §§ 149, 158, H. C. 1, 26, 28. On the change of a to ai or e, see my Comp. Gramm. § 148; here it occurred by assimilation to root रँच् or रँच् No. 1. See introductory remarks pp. 39, 40. In old Hindi this root occurs in the form डंच्, which is much nearer the original Prākṛit form कंच्; and corresponding to it, the old Hindi has a root-form रंच् which has evidently been modified from the original form रँच् (see No. 1), in order to assimilate it to रंच्; just as the original form डंच् has

\* These are roots which I was at first inclined to consider to belong to the secondary class.



been modified to **खै** in order to assimilate it to **खै**. Thus the two forms **खै** and **खै** occur in the Prithirāj Rasau 27, 38.

यां संगोल लखरी बीस डंकी वर खै ।

बीतेनी सम्बाल नाम खरि प्रान सु खै । i. e.,

“The Mangol Khán Lalarí draws twenty daggers, and the four-sworded Sabbáj pulls out the enemy's life with his arrows.”

- 3 **खै** *omit, let go, release* = Skr. **खद्**, I. cl. **खदति**, Pr. **खदुर** (H. C. 4, 91), H. **खै**. The root is also spelled **खडि**; and it might be derived from **खद्**, VII. cl. **खदति**, Pr. **खदर** or **खदर**, H. **खडि** or **खडि** (as Pr. **खदर** for Skr. **खदति**). It might also be derived from the Skr. denominative root **खद्**, X. cl. **खदयति**; as it seems to have been done in H. C. 2, 36 (**खदुर** from **खदि**).
- 4 **खप** *be pressed down, be stamped, be printed* = Skr. **खप**, I. cl. **खपति**, Pr. **खपर**, H. **खपै**. Or perhaps from **खप**, IV. cl. **खपति**.\*
- 5 **खख** or **खख** or **खख** *sigh, chatter (wildly), lament, be sorry for* = Skr. **खख**, I. cl. **खखति**, Pr. **खखर** (H. C. 4, 140), H. **खखै**, **खखै** or (disaspirated) **खखै**. As to the change of **ख** to **ख**, compare Pr. **खखो** for Skr. **खख**: (H. C. 2, 27). As to the meaning, compare the English “croak.”†
- 6 **खप** *throw on, cover* = Skr. **खप** *throw*, Passive **खपते** (used actively), Pr. **खपर**, H. **खपै**. The **ख** for **ख** is as in **खिखर** for **खीयते** H. C. 2, 3, and the inserted anusvára, as in **खपर** (H. C. 4, 2, 1, 26, for **खपर**). Or it might be derived from Skr. **खपि** + **ख**, Causal **खपयति**, Pr. **खपर** or **खपर** (for **खपयपर**, with loss of initial **ख** see my Comp. Gramm. § 172).
- 7 **खक** *knock, hammer* = Skr. **खक**, I. cl. **खकति**, Pr. **खकर** (with **ख** for **ख** as in **खरो** H. C. 1, 205), H. **खकै** (for **खकै** with transfer of aspiration). Compare Skr. **खक**. See No. 9.
- 8 **खस** *ram, hammer* = Skr. **खस**, I. cl. **खसति**, Pr. **खसर** (as to **ख** for **ख**, see H. C. 1, 205), H. **खसै** (for **खसै**, with transfer of aspiration from **ख** to **ख**, and change of **ख** to **ख**, see my Comp. Gramm. §§ 11, 132). See No. 10, also Nos. 7 and 9.
- 9 **खस** or **खस** *ram, hammer, drive in, (nail, &c.)* = Skr. **खस**, I. cl. **खसति**, Pr. **खसर** (as to **ख** for **ख**, see H. C. 1, 205), H. **खसै** or **खसै** (for **खसै**, with transferred aspiration). See No. 7.
- 10 **खस** or **खस** *ram, hammer* = Skr. **खस**, I. cl. **खसति**, Pr. **खसर** (cf. H. C. 1, 205), H. **खसै** or **खसै** (for **खसै**). See No. 8.

\* The root **खप** also might produce a Pr. passive (used actively) **खपर**, analogous to **खिपर** (H. C. 4, 257).

† This verb is noted by Hemachandra not less than five times; in 4, 140 as = **खप** *repent*, in 4, 148 = **खिख** *lament* or *prattle*, in 4, 156 = **खिख** *scold*, in 4, 201 = **खिख** *sigh*, and in 4, 259 = **खिख** *talk*.

- 11 डाङ् or डार् *send forth, pour out, cast*, a modification of डाङ्, No. 14 *g. v.*, cerebralisation transferred to the initial ष from ङ.
- 12 थप् *fix, settle* = Skr. थप्; Passive थभ्यते (used actively), Pr. थप्थ (formed similarly to थिप्थ from थ्युभ्यते H. C. 4, 257), H. थपै. See footnote on p. 46; थ = थ = थ = थ.
- 13 थाप् or टप् *slap, strike, pat* = Skr. कृप्, Passive कृभ्यते (used actively), Pr. थप्थ or टप्थ, H. थापै or टपै. See footnote on p. 46; थ = थ = थ = थ.
- 14 घाङ् *send forth, pour out, cast* = Skr. घ्राङ्, I. cl. घ्राङते, Pr. घ्राङ् (H. C. 4, 79), H. घ्राङ्. See No. 11. The Skr. घ्राङ् is adopted from the Pr., and is probably a denominative of घ्राङ्, P. P. P. of घ्राङ् *glide, flow*, Pr. घङ् = घङ् = घाङ्.
- 15 फलङ् *leap* = Skr. प्र+लङ्, I. cl. प्रलङ्गति, Pr. फलङ्ग, H. फलङ्गै (with transfer of aspiration).
- 16 फेङ् or फौङ् *hurl, fling, throw away* = Skr. प्र-रुप्, Future प्रेरुषति (used in sense of present), Pr. फेरुङ्ग or फेरुङ्ग, H. फेङ्गै or फौङ्गै (with transfer of aspiration).
- 17 विङ् *weave* = Skr. वृ, IX. cl. वृषति, Pr. विरुङ्ग, H. विङ्गै; see No. 19; also No. I, 237. The Skr. root for *weave* is वे, I. cl. वचति or IV. cl. वचते; it seems impossible to derive the H. root विङ् from it; but the roots वृ and वे are probably connected; both mean *cover*.
- 18 विङ् *be spread* = Skr. वि-सृ, Passive विस्त्रियते (for विस्त्रियते; like निस्त्रियते, त्रियते), Pr. विस्त्रुङ्ग or विस्त्रुङ्ग, H. विङ्गै. Compare Pr. विस्त्रुङ्ग in Chanda 2, 21 for Skr. विस्त्रुङ्ग.
- 19 वुङ् *weave* = Skr. वृ, V. cl. वृषोति, Pr. वुङ्ग, H. वुङ्गै, formed like वुङ् No. I, 347. See No. 17.
- 20 बोङ् *load* = Skr. बृ, Passive बृभ्यते (used actively) or Causal Passive बाङ्गते, Pr. बुङ्ग (cf. H. C. 4, 245 बुङ्ग), H. बोङ्गै.
- 21 भौङ् or भौङ् *be wet* = Skr. अभि + भृञ्, Passive अभ्यभ्यते, Pr. अभिभ्यङ्ग, H. भौङ्गै or भौङ्गै (with loss of initial अ; see secondary root भौङ् No. 140).
- 22 भूङ् or भौङ् or भौङ् *talk foolishly, bark* = Skr. भृ, Future भृषति. Pr. भृङ्ग (H. C. 4, 186, with disaspiration for भृङ्ग), H. भूङ्गै, &c. The original aspirate form भौङ्गै occurs in Hindi. There is an identically spelled root, meaning *thrust, drive*, which probably has a different origin and may be a compound root.
- 23 भेङ् *send* = Skr. अभि + भृञ्, Passive अभ्यभ्यते (used actively), Pr. अभिभ्यङ्ग, H. भेङ्गै (with loss of initial अ and change of *i* to *e*, see my Comp. Gramm. §§ 172, 148. As to the change of *ya* to *i*, see *ibidem*, § 121.
- 24 चाङ् *adorn, prepare* = Skr. चङ्, Passive चङ्गते (used actively), Pr. चङ्ग, H. चाङ्गै. The Skr. root चङ्ग has been adopted from the Prākṛit.

# APPENDIX

## TO "A COLLECTION OF HINDÍ ROOTS."

### INDEX OF SANSKRIT ROOTS AND WORDS OCCURRING IN PAGES 33—80.

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>√<u>achh</u> 40.</p> <p>√<u>aj</u>; abhi—80.</p> <p>√<u>anj</u>; abhi— 80.</p> <p>√<u>at</u> 42; abhi—57.</p> <p>N. aṭṭa 63.</p> <p>N. adhyakaha 69.</p> <p>N. abhyanga 75.</p> <p>√<u>ard</u>; abhi—57.</p>                                                                                                                                                                                                                                                                                                                                                                                     | <p>N. karma 64.</p> <p>√<u>kal</u>; nis—72.</p> <p>√<u>kaah</u> 43.</p> <p>N. kaaha 37, 64.</p> <p>√<u>kas</u>; nis—50.</p> <p>√<u>kāri</u> (causal) 36 bis.</p> <p>√<u>kās</u> 43.</p> <p>√<u>kunch</u>; ni—50.</p> <p>√<u>kuṭ</u> 43; ava—43.</p> <p>√<u>kuṭṭ</u> 43.</p> <p>√<u>kup</u> 35, 43.</p> <p>√<u>kṛi</u> 35, 37, 43, 47, 48.</p> <p>√<u>kṛit</u> 43.</p> <p>√<u>kṛiāh</u> 35, 39, 43, 78;<br/>ut—42.<br/>ś—40, 78.</p> <p>P. kṛiṣṭa 64.</p> <p>√<u>kṛi</u> 43; vi—35, 36, 55.</p> <p>√<u>kṛid</u> 44.</p> <p>√<u>kshap</u> 43, 79.</p> <p>√<u>ksham</u> 79.</p> <p>√<u>kshamp</u> 79.</p> <p>√<u>kshar</u> 64; ni—50.</p> <p>√<u>kahal</u> 64.</p> <p>√<u>kahi</u> 43, 46.</p> <p>√<u>kahip</u> 44, 65.</p> <p>P. kaḥipta 65, 66, 67 bis.</p> <p>√<u>kahu</u> 67.</p> <p>N. kaḥut 67.</p> <p>N. kaḥubh 69.</p> <p>√<u>kahur</u> 44.</p> <p>N. kahepa 69.</p> <p>√<u>kahai</u> 56; vi—ava—56.</p> <p>√<u>kaḥoṭ</u> 44 bis, 67, 68.</p> | <p>√<u>khād</u> 34, 35, 43.</p> <p>√<u>khid</u> 44.</p> <p>√<u>khuḍ</u> 44 <i>tris.</i></p> <p>√<u>khuḍḍ</u> 44.</p> <p>√<u>khur</u> 44.</p> <p>√<u>khoṭ</u> 44.</p> <p>√<u>khod</u> 44.</p> <p>√<u>khor</u> 44.</p> <p>√<u>khōl</u> 44.</p> <p style="text-align: center;">ग ग.</p> <p>√<u>gachh</u> 40; ś—34, 41.</p> <p>√<u>gap</u> 44.</p> <p>√<u>gam</u> 44.</p> <p>N. garta 64.</p> <p>N. garda 65.</p> <p>√<u>garh</u> 44.</p> <p>√<u>gal</u> 44; api—52.</p> <p>√<u>galh</u> 44.</p> <p>P. gādha 65.</p> <p>√<u>guph</u> 44.</p> <p>√<u>grī</u> 44.</p> <p>N. gorda 65.</p> <p>√<u>gai</u> 44.</p> <p>√<u>granth</u> 44.</p> <p>√<u>grāh</u> 44, 45.</p> <p>√<u>glunch</u> 44.</p> <p style="text-align: center;">घ gh.</p> <p>√<u>ghaṭ</u> 44 bis; ud—42.<br/>vi—55 bis.</p> <p>√<u>ghaṭṭ</u> 44, 45.</p> <p>√<u>ghuṇ</u> 45.</p> |
| <p>√<u>āp</u>; pra—35, 41, 52.<br/>sam—61.</p> <p style="text-align: center;">इ i.</p> <p>N. icchā 45, 66.</p> <p>√<u>iāh</u>; pra—80.</p> <p>√<u>i</u>; pari—63.</p> <p style="text-align: center;">ई i.</p> <p>√<u>ikah</u>; pari—61.</p> <p style="text-align: center;">उ u.</p> <p>N. uchcha 63.</p> <p>P. utkṛiṣṭa 64.</p> <p>N. utāha 45, 66.</p> <p>N. udvam 63.</p> <p>P. upaviṣṭa 37, 74.</p> <p style="text-align: center;">ऋ ri.</p> <p>√<u>ri</u>; adhi—79.<br/>sam—62.</p> <p style="text-align: center;">क k.</p> <p>√<u>kath</u> 43.</p> <p>√<u>kamp</u> 43.</p> <p>N. karda 64.</p> | <p>N. karma 64.</p> <p>√<u>kal</u>; nis—72.</p> <p>√<u>kaah</u> 43.</p> <p>N. kaaha 37, 64.</p> <p>√<u>kas</u>; nis—50.</p> <p>√<u>kāri</u> (causal) 36 bis.</p> <p>√<u>kās</u> 43.</p> <p>√<u>kunch</u>; ni—50.</p> <p>√<u>kuṭ</u> 43; ava—43.</p> <p>√<u>kuṭṭ</u> 43.</p> <p>√<u>kup</u> 35, 43.</p> <p>√<u>kṛi</u> 35, 37, 43, 47, 48.</p> <p>√<u>kṛit</u> 43.</p> <p>√<u>kṛiāh</u> 35, 39, 43, 78;<br/>ut—42.<br/>ś—40, 78.</p> <p>P. kṛiṣṭa 64.</p> <p>√<u>kṛi</u> 43; vi—35, 36, 55.</p> <p>√<u>kṛid</u> 44.</p> <p>√<u>kshap</u> 43, 79.</p> <p>√<u>ksham</u> 79.</p> <p>√<u>kshamp</u> 79.</p> <p>√<u>kshar</u> 64; ni—50.</p> <p>√<u>kahal</u> 64.</p> <p>√<u>kahi</u> 43, 46.</p> <p>√<u>kahip</u> 44, 65.</p> <p>P. kaḥipta 65, 66, 67 bis.</p> <p>√<u>kahu</u> 67.</p> <p>N. kaḥut 67.</p> <p>N. kaḥubh 69.</p> <p>√<u>kahur</u> 44.</p> <p>N. kahepa 69.</p> <p>√<u>kahai</u> 56; vi—ava—56.</p> <p>√<u>kaḥoṭ</u> 44 bis, 67, 68.</p> | <p>√<u>khād</u> 34, 35, 43.</p> <p>√<u>khid</u> 44.</p> <p>√<u>khuḍ</u> 44 <i>tris.</i></p> <p>√<u>khuḍḍ</u> 44.</p> <p>√<u>khur</u> 44.</p> <p>√<u>khoṭ</u> 44.</p> <p>√<u>khod</u> 44.</p> <p>√<u>khor</u> 44.</p> <p>√<u>khōl</u> 44.</p> <p style="text-align: center;">ग ग.</p> <p>√<u>gachh</u> 40; ś—34, 41.</p> <p>√<u>gap</u> 44.</p> <p>√<u>gam</u> 44.</p> <p>N. garta 64.</p> <p>N. garda 65.</p> <p>√<u>garh</u> 44.</p> <p>√<u>gal</u> 44; api—52.</p> <p>√<u>galh</u> 44.</p> <p>P. gādha 65.</p> <p>√<u>guph</u> 44.</p> <p>√<u>grī</u> 44.</p> <p>N. gorda 65.</p> <p>√<u>gai</u> 44.</p> <p>√<u>granth</u> 44.</p> <p>√<u>grāh</u> 44, 45.</p> <p>√<u>glunch</u> 44.</p> <p style="text-align: center;">घ gh.</p> <p>√<u>ghaṭ</u> 44 bis; ud—42.<br/>vi—55 bis.</p> <p>√<u>ghaṭṭ</u> 44, 45.</p> <p>√<u>ghuṇ</u> 45.</p> |

√ $\overline{ghúrā}$  45 *bis*.  
 √ $\overline{ghrīṇ}$  65.  
 N.  $\overline{ghrīṇā}$  65.  
 N.  $\overline{ghrīṇikā}$  65.  
 √ $\overline{ghrīah}$  45.  
 √ $\overline{ghol}$  45.  
 √ $\overline{ghrā}$ ; sam—á—62.

## च ch.

√ $\overline{chap}$  45.  
 N.  $\overline{chapa}$  65.  
 N.  $\overline{chamat}$  65, 66.  
 √ $\overline{char}$  45; vi—55.  
 N.  $\overline{charpa}$  65.  
 √ $\overline{charv}$  45.  
 √ $\overline{chal}$  45.  
 √ $\overline{chī}$  45; pari—51.  
 sam—60.

N.  $\overline{chikkapa}$  65.  
 N.  $\overline{chikkīpa}$  65.  
 P.  $\overline{chitta}$  65.  
 N.  $\overline{chitra}$  65 *bis*.

√ $\overline{chint}$  45.  
 N.  $\overline{chipiṭa}$  73.  
 N.  $\overline{chihna}$  65.  
 N.  $\overline{chīra}$  65.  
 √ $\overline{chukk}$  66.

√ $\overline{chumb}$  46.  
 P.  $\overline{chetita}$  65.  
 N.  $\overline{chora}$  66.  
 N.  $\overline{chaura}$  66.

√ $\overline{chyu}$  45.  
 √ $\overline{chyut}$  35, 45, 66.  
 N.  $\overline{chyut}$  37, 66 *bis*.

## च chh.

√ $\overline{chhad}$  46.  
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 N.  $\overline{chhala}$  66.  
 N.  $\overline{chhikkā}$  67.  
 √ $\overline{chhiṭ}$  67.  
 √ $\overline{chhid}$  46, 68.

N.  $\overline{chhidra}$  68.  
 P.  $\overline{chhinna}$  69.  
 √ $\overline{chhuṭ}$  46.  
 √ $\overline{chhup}$  46 *bis*.  
 √ $\overline{chhrīd}$  79.

## ज j.

√ $\overline{jan}$  36, 46.  
 N.  $\overline{janma}$  36, 68.  
 √ $\overline{jalp}$  46.  
 √ $\overline{jāgrī}$  46.  
 P.  $\overline{jīta}$  68.

√ $\overline{jīv}$  46.  
 √ $\overline{juṭ}$  47 *bis*, 67, 68 *bis*.  
 √ $\overline{jñā}$  35 *bis*, 46, 58.  
 P.  $\overline{jñāpta}$  68.  
 N.  $\overline{Jyotis}$  68.  
 √ $\overline{jvar}$  46.  
 √ $\overline{jval}$  46, 47, 54 *bis*;  
 ud—42.

## ज jh.

√ $\overline{jhaṭ}$  47 *bis*.  
 N.  $\overline{jhaṭa}$  68.  
 N.  $\overline{jhampa}$  68.  
 N.  $\overline{jhallā}$  47, 69.  
 N.  $\overline{jhallakā}$  47..

## ञ ṭ.

√ $\overline{ṭank}$  47.  
 N.  $\overline{ṭankāra}$  69.

## ज ḍ.

√ $\overline{ḍī}$ ; ud—42.

## ञ ḍh.

√ $\overline{ḍhūṇḍh}$  48.  
 √ $\overline{ḍhauk}$  48.

## त t.

√ $\overline{takah}$  70, 79 *bis*.  
 N.  $\overline{taksha}$  69.  
 √ $\overline{tan}$  48.

√ $\overline{tap}$  48; sam—61, 79.  
 √ $\overline{tark}$  48.  
 √ $\overline{tul}$  48 *tris*.  
 √ $\overline{tṛi}$ ; ava—42.  
 √ $\overline{tṛi}$  48 *bis*; ut—42.  
 pra—52.  
 vi—55.

N.  $\overline{trāya}$  69.  
 √ $\overline{troṭi}$  (causal) 35, 36.  
 √ $\overline{truṭ}$  35, 47, 48.  
 √ $\overline{tvaksh}$  70, 79 *bis*.

## द d.

N.  $\overline{dagdha}$  71.  
 √ $\overline{dam}$  48.  
 N.  $\overline{dara}$  70, 71.

√ $\overline{dāl}$  48.  
 √ $\overline{damṣ}$  47.  
 √ $\overline{das}$  47.  
 √ $\overline{dah}$  48.  
 N.  $\overline{daha}$  71.

√ $\overline{dā}$  35 *bis*, 49.  
 N.  $\overline{dāha}$  90.

√ $\overline{diṣ}$  49.  
 √ $\overline{dūl}$  47.  
 N.  $\overline{duḥkha}$  71.  
 N.  $\overline{driḍha}$  71.

√ $\overline{driṣ}$  34, 35, 38, 49 *bis*;  
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 ni—49.  
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√ $\overline{dri}$  47, 48; vi—55.  
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## च dh.

N.  $\overline{dhama}$  71, 78.  
 √ $\overline{dhā}$ ; pari—51 *bis*.  
 N.  $\overline{dhāra}$  71.

√ $\overline{dhāv}$  49 *bis*.

√ $\overline{dhū}$  49, 63.

√ $\overline{dhri}$  49 *bis*; su—62.

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 $\sqrt{\text{dhráj}}$  80.  
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 $\sqrt{\text{dhráj}}$  80.  
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 $\sqrt{\text{dhránkah}}$  79.

ॠ n.

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 N. nikusmaya 72.  
 N. nigala, 72.  
 P. nivrita, 65.  
 P. nishkusha 72.  
 P. nishkrishṭa 72.  
 N. nishpatti 72.  
 $\sqrt{\text{nrít}}$  35, 50.

ॡ p.

P. pakva 72.  
 $\sqrt{\text{pach}}$  51.  
 $\sqrt{\text{pach}}$ ; pra—73.  
 N. paṭa 72.  
 N. paṭṭa 72.  
 $\sqrt{\text{paḥ}}$  51.  
 $\sqrt{\text{pat}}$  35, 51, 52; ut—45.  
     á—41.  
 N. paṭra 72.  
 $\sqrt{\text{pad}}$ ; ut—42.  
     á—41.  
 N. parichayana 73.  
 P. paritoshita 65.  
 P. paryasta 71, 73.  
 $\sqrt{\text{paláy}}$  51.  
 $\sqrt{\text{pas}}$  34, 49.  
 N. paśchátápa 72.  
 $\sqrt{\text{pá}}$  52.  
 $\sqrt{\text{pá}}$  52 (*drink*).  
 N. pániya 73.  
 N. pichcha 73.

N. pichchīta 73.  
 N. pichchhala 73.  
 N. pichchhila 73.  
 N. pinaddha 73.  
 $\sqrt{\text{piah}}$  37, 52 *bis.*  
 P. piṣṭa 37, 73, 74.

$\sqrt{\text{piq}}$  52 *bis.*

N. puṇya 74.

$\sqrt{\text{puah}}$  52.

$\sqrt{\text{púj}}$  52.

N. pútkára 73.

$\sqrt{\text{pri}}$  52.

$\sqrt{\text{pri}}$  52.

P. prakriṣṭa 72.

$\sqrt{\text{prachh}}$  52.

N. prapancha 73.

P. pravishṭa 34, 37, 72.

$\sqrt{\text{preksh}}$  34, 38.

ॢ ph.

$\sqrt{\text{phal}}$  53.

N. phút 74.

N. phútkára 73.

$\sqrt{\text{phel}}$  53.

ॣ b.

$\sqrt{\text{badh}}$  54.

$\sqrt{\text{bandh}}$  54 *bis.*

$\sqrt{\text{bádth}}$  54.

$\sqrt{\text{budh}}$  33, 35, 36 *bis*;

sam—61.

$\sqrt{\text{brú}}$  56, 74.

। bh.

$\sqrt{\text{bhakah}}$  57.

P. bhagna 75.

$\sqrt{\text{bhaj}}$  57.

$\sqrt{\text{bhanj}}$  35 *bis*, 57 *bis.*

$\sqrt{\text{bhan}}$  57.

$\sqrt{\text{bhal}}$  57.

$\sqrt{\text{bhaah}}$  80.

$\sqrt{\text{bhás}}$  57.

$\sqrt{\text{bhíd}}$  55, 57.

$\sqrt{\text{bhuj}}$  57.

$\sqrt{\text{bhú}}$  35, 40, 63;

ud—43.

pra—52.

P. bhúrṇa 75.

$\sqrt{\text{bhri}}$  57; ud—42.

sam—61.

$\sqrt{\text{bhriṃṣ}}$  57.

$\sqrt{\text{bhram}}$  57.

$\sqrt{\text{bhramṣ}}$  53 *bis*, 66.

P. bhrashta 75.

॥ m.

$\sqrt{\text{mach}}$  57.

$\sqrt{\text{manch}}$  57.

$\sqrt{\text{math}}$  58.

$\sqrt{\text{man}}$  58 *bis.*

N. mantra.

$\sqrt{\text{má}}$  58.

$\sqrt{\text{márg}}$  35, 36, 58.

$\sqrt{\text{márj}}$  58.

$\sqrt{\text{mil}}$  58.

$\sqrt{\text{mish}}$  58.

$\sqrt{\text{much}}$ ; pra—54.

$\sqrt{\text{muṃḍ}}$  58.

N. mudrá 76.

$\sqrt{\text{muh}}$  58.

$\sqrt{\text{mú}}$  76.

N. mútra 76.

P. múna 76.

$\sqrt{\text{músh}}$  58.

$\sqrt{\text{mri}}$  58 *bis.*

$\sqrt{\text{mrij}}$  57, 58.

P. mrita 70.

$\sqrt{\text{mrid}}$  58 *bis.*

$\sqrt{\text{mriṣ}}$  57, 58, 70.

P. mṛiṣṭa 75, 76.  
N. mauna 76.  
N. maula 76 bis.

ब य.

√yá 41, 46; á—34, 41.  
P. yukta 65, 67, 68.  
N. yugma 68.  
√yudh 46.  
N. yoktra 68.

र र.

P. rakta 76.  
√raksh 68, 69.  
N. ranga 76.  
√rach 58.  
√raj 59.  
√ranj 59.  
√ram 59.  
√radh 59.  
√ring 59.  
√rish 59.  
√ruch 59.  
√ruṭ 59.  
√ruḍ 59.  
√rudh 59.  
N. rudh 37, 76.  
√rush 59 bis.  
P. rushta 76.  
√ruh 59.  
N. resh 76.  
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√raud 59.

ल ल.

√laksh 59; vi—55.  
√lag 33, 36, 59; vi—55.  
N. langa 76.  
√langh 59; pra—80.  
vi—55.

√lajj 60.  
√laḍ 59.  
√lap; vi—79.  
√labh 60 bis; ud—42.  
upa—6—79.  
N. lava 76.  
√las 60; vi—55.  
√likh 60.  
√lip 60 bis.  
√lī; vi—55.  
ni—77.  
√lunch 77.  
√luṭ 59, 60.  
√luṭṭ 60.  
√luṭh 60.  
√luṭh 60.  
√luḍ 59, 60.  
√lup 76.  
N. lup 76.  
√lumb 77.  
√lubb 60.  
√lul 59.  
√lok; pra—vi—49.  
√loḍ 59.  
N. lobha 77.

व व.

√vach 56.  
√vanch 54.  
√vaṭ 54; nir—50 bis.  
√vaṇḍ; nir—50.  
√vaṇ 54.  
√vad 54, 56 bis.  
√vap 56.  
N. vama 63.  
√vas 54; apa—43.  
√vah 54, 80; nir—50.  
N. vahiṣ 74.  
N. vāch 74.

N. vāchya 74.

√vāchh 54.

N. vātula 75.

√vās 54.

N. virāva 74.

P. vilambita 74.

√viṣ 75; pra—34, 37, 52.  
upa—37, 56.

√viśh 75; pari—35, 51.

P. vīta 75.

√vri 54, 60, 88 bis;  
ud—42.

ni—50.

sam—61.

√vriṭ 54; vi—48.

vi—6—56.

√vriḍh 54.

√vriśh 54.

√ve 80.

√veshṭ 75; upa—64.

√vyach 56.

√vyadh 55.

P. vyasta 74.

√vraj 54 bis.

√vri 55.

√vruḍ 56 bis.

ख ङ.

√ṣak 35, 60.

√ṣad 47 tris, 61; ud—45.

√ṣamb 69.

√ṣal 61 bis; ut—42.

N. ṣāpa 77.

√ṣiksh 61.

√ṣingh 62.

N. ṣit 69.

N. ṣītala 77.

√ṣuch 62.

√ṣudh 62.

√ṣubh 62, 77.

N. *śuśhka* 77.  
 √*śri* 61.  
 √*śobha* 77.  
 √*śchyut* 45.  
 √*śrā* 62.  
 √*śri* 62.  
 √*śri* 62.  
 √*śru* 35, 62.  
 √*ślāgh* 61.  
 √*śras*; *niḥ*—79.  
 √*śvi* 62.  
  
 श sh.  
 N. *śhṭeva* 71.  
  
 ष s.  
 √*śanj* 80.  
 N. *śatra* 77.  
 √*śad* 51, 77.  
 N. *śada* 77.  
 N. *śadyikāha* 40.  
 P. *śamśhita* 77.  
 N. *śammukha* 77.  
 N. *śara* 77.  
 √*śal* 61.  
 √*śah* 61.  
 √*śādḥ* 61.  
 √*śich* 35, 61.  
 √*śiv* 61; *pra*—51.  
 √*śukh* 36, 62.  
 N. *śukha* 77.  
 P. *śupta* 77.

√*śri* 61 *bis*; *nis*—50.  
*pra*—51 *bis*.  
 N. *śektra* 67.  
 √*śev* 62.  
 √*śkand* 43, 64.  
 √*śkund* 43.  
 √*śkhal*; *ś*—64.  
 N. *śkhala* 64.  
 N. *śtana* 69.  
 P. *śtabdha* 69 *bis*, 70 *bis*.  
 √*śtabh* 80.  
 N. *śtabh* 70.  
 √*śtambh* 48 *bis*, 69.  
 N. *śtambha* 69.  
 √*śtup* 48.  
 √*śtṛi*; *vi*—55, 80.  
 √*śtṛih* 80.  
 N. *śthag* 70.  
 √*śthal*; *ni*—50.  
 √*śthā*; *ut*—41, 42, 56.  
*pra*—51.  
*sam*—60.  
 N. *śthira* 71 *bis*.  
 P. *śnasta* 71.  
 √*śnā* 36, 50.  
 √*śpand* 53.  
 N. *śparṣa* 73.  
 √*śpṛiṣ* 46 *bis*, 53, 79.  
 P. *śpṛiṣṭa* 66, 67.  
 √*śphaṭ*; 53 *bis*.  
 N. *śphaṭa* 74.  
 N. *śphara* 74.  
 √*śpḥal* 53.

√*śphīṭ* 53.  
 √*śphīṭṭ* 53.  
 √*śphuṭ* 53, 54.  
 N. *śphútkāra* 73.  
 √*śmi*; *ni*—ku—72.  
 √*śmṛi* 62; *vi*—55.  
 √*śyand* 61, 63, 66.  
 N. *śyanna* 66.  
 √*śrams* 61.  
 √*śvid* 62; *pra*—51.  
  
 ह h.  
 N. *hak* 78 *bis*.  
 N. *hakkāra* 78.  
 P. *hata* 78.  
 N. *had* 77.  
 √*han* 62.  
 √*has* 63.  
 √*hā*; *vi*—55.  
 N. *hāra* 78.  
 √*hu* 63.  
 √*hūḍ* 63.  
 √*hṛi* 62; *ś*—42.  
*anu*—42.  
*pari*—51.  
*vi*—55.  
*vi*—ava—56.  
*sam*—60, 61.  
 √*hṛiṣh* 63.  
 √*hval* 63 *bis*.  
 N. *hvala* 78.  
 √*hvṛi* 63.  
 √*hve* 63.



## ERRATA.

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|                                      |                    |                     |
|--------------------------------------|--------------------|---------------------|
| Page 83, line 22, read <i>budhya</i> |                    | for <i>bulhga</i> . |
| „ 35, „ 38, „                        | Skr. <i>gak</i>    | „ Skr. <i>sak</i> . |
| „ 44, „ 1, „                         | बिद्               | „ बिद्.             |
| „ 44, „ 6, „                         | बोद्               | „ बोद्.             |
| „ 47, „ 30, „                        | भद्                | „ भद्.              |
| „ 55, „ 17, „                        | बु                 | „ बु.               |
| „ 57, „ 19, „                        | बर्द्              | „ बर्द्.            |
| „ 57, „ 41, „                        | बम्                | „ बम्.              |
| „ 59, „ 33, „                        | सद्                | „ सद्.              |
| „ 59, „ 39, „                        | सुद्, सुब्         | „ सुद्, सुब्.       |
| „ 66, „ 30, }                        | } „ Skr. N. „ Skr. |                     |
| „ „ 32, }                            |                    |                     |
| „ „ 34, }                            |                    |                     |
| „ „ 35, }                            |                    |                     |
| „ 75, „ 13, „                        | Skr. N.            | „ Skr.              |
| „ 76, „ 35, „                        | Skr. N. सुप्       | „ सुप्.             |
| „ 77, „ 28, „                        | श्रीभ              | „ श्रीभ.            |
| „ 77, „ 37, „                        | Skr. N.            | „ Skr.              |
| „ 78, „ 24, „                        | Prithiráj          | „ Prithiraj.        |

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## CORRIGENDA ET ADDENDA.

Page 1, for Trichinopoli, read Trichinopoly.

" 2, for stubi (*passim*), read stúbi.

" 2, line 19, for purána, read púrana.

" 2, " 20, (first word) for n read in.

" 2, " 5, from bot., for a high, read high.

" 3, " 12, from bot., add the following note :—

'The projecting beam ends are perhaps carved to represent *Yáli* (? Griffins) heads, and the spiral lumps noticed may be the *Yáli*'s trunk coiled up above.'

Page 4, line 6, from bot., for Nachaiyár, read Náchaiyár.

" 5, " 14, after metal add, somewhat like the Sabha (halls) at Chidambaram.

" 5, " 8, from bot., insert an asterisk (\*) with foot note :—

On a 2nd visit the former (upper) head appeared to be that of a ram with very curved horns, and its leg and foot cut off and put in its mouth as they still often do at village sacrificial feasts. The buffalo's head below has its tongue hanging out of its mouth.

Page 6, line 1, after Grám-munsif, insert or village officer.

" 6, " 17, after new, insert Jaina.

" 7, " 12, for Kasi read Kási.

" 7, " 10, from bot., after or, insert Coleroon.

### 2nd paper p. 8.

Page 8, line 12, for flat silled read flat-silled.

" 8, " 5, from bot., for shutter stone read shutter-stone.

" 9, " 13, for nehropolis read necropolis.

" 9, " 19, for similar read *kistvaen*.

" 9, " 13, from bot., for *chadud* read *chathut*.

" 9, last line, for Neilipatla read Nellipatla.

" 10, line 7, for three or four read six or seven.

B. R. BRANFILI,



## ABBREVIATIONS.

|                                                                     |                                                              |
|---------------------------------------------------------------------|--------------------------------------------------------------|
| Bs. = Beames' <i>Comparative Grammar.</i>                           | S. B. = Setubandha (ed. S. Goldschmidt).                     |
| Cw. = Cowell's edition of the <i>Prákríta Prakápa.</i>              | S. C. = Śubha Chandra's <i>Prákríta Grammar.</i>             |
| Dl. = Delius' <i>Radices Praeritica.</i>                            | S. Gdt. = S. Goldschmidt's edition of the <i>Setubandha.</i> |
| E. M. = E. Müller's <i>Beiträge zur Grammatik des Jainaprákrít.</i> | Spt. = Saptasataka des Hála (ed. A. Weber).                  |
| H. C. = Hema Chandra's <i>Prákríta Grammatik</i> (ed. Pischel).     | T. V. = Trivikrama's <i>Prákríta Grammar.</i>                |
| K. I. = Kramad Işvara's <i>Prákríta Grammar.</i>                    | Vr. = Vararuchi's <i>Prákríta Grammar.</i>                   |
| R. M. = Dr. Rajendralala Mitra's <i>Prákríta Vocabulary.</i>        | Wb. = Weber's edition of the <i>Saptasataka.</i>             |
|                                                                     | G. = Gujarátl. S. = Sindhf.                                  |
|                                                                     | M. = Maráthf.                                                |

*Coins supplementary to Thomas' Chronicles of the Pathan kings.*—By  
C. J. RODGERS.

(With two Plates.)

The "Chronicles of the Pathan kings" is a very full work. But it is an enlargement of a smaller previous work. Further search brought more coins to light, and the description of these coins has swollen the original treatise to its present size. But large though the work be, it is not *exhaustive*. Finality in our knowledge of the coins of the Pathans has not yet been attained. Continued search will bring out still further coins which from time to time will have to be described. Owing to the nature of my duties I have few opportunities of obtaining fresh coins, but as I have during the past year come across about forty unpublished ones, I thought I might venture to put them forward as a small contribution to a further knowledge of the coins of India.

The word *a'dl* figures largely on the coins of the Gazní rulers. In some modern coins this word occurs together with the sword on several coins of towns in Afghanistan. It must have been for the reason, that might is right, that the early conquerors of India stuck this word on their coins. In Plate V, Nos. 1 and 2 have *a'dl* on the obverse and *mumallikí* on the reverse. I am inclined to ascribe this coin to *Muhammad Sâm* or his general *Eibek*. The word I have transliterated as *mumallikí* may be *mumlakat*. No. 6 I regard as a coin of Muizz-ud-dín Muhammad Sâm. The word Muizz on this coin is written more like the same word on the coins of Eldoz and of Muhammad Sâm, than that on the coins of Muizz-ud-dín Kaikubad or Muizz-ud-dín Bahram Sháh. There is a coin in the "*Ariana Antiqua*," Pl. XX. fig. 14 which is not mentioned by Thomas. Now I got a good specimen of this same coin from Neshápúr with a lot of the coins of A'la-ud-dín Khwárizmí. A glance at No. 15

of Plate V, will show that this very king A'la-ud-dín struck coins of the very same type, using the square area for his name and titles and dividing the latter similarly to Muizz-ud-dín. No. 7, Pl. V, I claim also for Muhammad Sám. It has Muizzí on obverse and on reverse in Hindí, Sri Samanta Deva.

Nos. 3 and 4, Pl. V, are undoubtedly new types of Shams-ud-dín Altamsh. No. 3 has obv. *a'dl*, rev. *Shamsí*. No. 4 has the same with a star underneath each word. Neither has any ornament.

No. 9 is, I believe, also Shams-ud-dín's. The star seems to indicate this. *A'dl i Sultan ul Muazzim*, the inscription on the obverse is found also on a large quantity of coins of size similar to this one of which Thomas takes no notice. But the *Zarb ba Lahore* with star above it is not on them. They have always *Zarb ba hazrat Dehli*. No. 9 is to me unique. But the other kind I mention are very common indeed. In my own small collection I have no less than 12 duplicates. One of them has *A'dl i Sultán i Muazzim*; the *alif* and *lám* are altogether missing.

No. 10 is undoubtedly Shams-ud-dín's coin. *Obverse: A'dl us Sultán (ul A'zim)*; *Reverse: (Sha)ms ud Dunya (wa) ud dín*. This is a very coarse coin.

Nos. 11, 12 and 13 are I think Shams-ud-dín's. The obverse and reverse are simple *A'dl* and *Dehli*. No. 11 has these words in square areas; No. 12 in round ones with ornaments; No. 13 in a hexagonal star, with dots in the angles.

No. 5 is a very rare coin weighing only the same as No. 109 in Thomas, and half the weight of his No. 52, the inscriptions of which latter coin it possesses. So we may regard this coin as the smallest hitherto discovered of Shams-ud-dín's. It is exceedingly rare as is the one double its size. Thus in all I have had the pleasure of unearthing no less than 10 new types of coins of Shams-ud-dín.

No. 8 I ascribe to *Reziáh*. In the rayed circle is the name *Reziáh*. On the reverse is the *bull* with Samanta Deva above it in Hindí. The whole coin is similar to No. 7 of the same plate.

No. 14, Plate V is evidently a coin of the same king the No. 15 belongs to. And No. 15 is obv. *A'la ud Dunya*, rev. *Wa ud dín*. This is a coin of A'la ud dín Khwarizmí. No. 14 has similar inscriptions to those on No. 5; but the fortunate discovery of No. 15 settles the ascription.

No. 16 is a new coin of the same king. In the central area is the word *Sultán* and on the margin *Ul A'zim A'la ud Dunya wa ud dín Muhammad (bin us Sul)tán*. Reverse: the *Kalimah*. The whole is in Kufic characters.

Not one of these three coins is in the British Museum or is noticed by Thomas.

No. 17 is a coin of Fíroz Sháh Zafar, son of Fíroz Sháh. The obverse has on it in square area Fíroz Sháh. The margin reads *Zafar ibn Fíroz Sháh Sultán*, the reverse has *naíb i amir ul Mominín 791*. No. 18 is exactly the same in date and inscriptions, but the latter are arranged differently on the obverse. *Zafar* beginning above the area and not on the left hand side as in No. 17. They are both of silver and copper. This Zafar Khán, son of Fíroz Sháh, died in Gujrát in 775, A. H. But he had a son also named Zafar Khan, and this coin may have been struck in his honour after the death of Fíroz Sháh.

No. 19 is a coin of Muhammad Shah, son of Fíroz Sháh. It is not in Thomas in this size. This coin is very light. In reading the margin of the large coin of this type, Thomas omits the word *Sultán* which is always on the best preserved specimens. The centre area is *Muhammad Shah*. The margin reads from the outside and is *Sultán, zarb bahazrat i Dehli*. The reverse of this coin is Naib i Amír ul Mominín 792.

No. 19a is a coin of similar type without any date on the reverse. Inasmuch as the margin of this coin reads from the inside, I am inclined to ascribe this to Muhammad bin Faríd Sháh, whose coins, when similar in type to the coins of the son of Fíroz, have always some difference in the arrangement of the words.

No. 20 is a coin of Muhammad Sháh son of Faríd Sháh. The inscriptions are, obverse *Sultán Muhammad Sháh, Faríd Sháh zarb Dehli*. Reverse *Khalifah Amír ul Mominín Khallad Khiláfotahu*. There is no date. There is some uncertainty as to the date of the death of this king. Thomas, quoting *Badaoní*, gives his death as 847. I got a coin of this king's during the time this plate was being prepared, dated 848. But this does not prove much; for from the time of Fíroz Sháh, the mints kept on coining in the names of kings who had been long dead; e. g., Mubárah Sháh died in 837. And I have coins bearing the date of 840 and 854. A whole series of posthumous coins of these kings might easily be made.

No. 21 is a coin of Bahlol Sháh. The inscriptions are, substituting *Bahlol Sháh* for Muhammad Sháh, similar to those on the last coin. Coins bearing these inscriptions are somewhat rare in the smaller size. This large-sized coin is to me unique, and it has not as yet been published. This is the third new type of Bohlol's that I have brought to light.

No. 22 has no business in this plate. It was put in to fill up a gap, and because I saw that the coin is new to numismatists, as it is not in the British Museum Catalogue or in Thomas' work on the Gazní coins. It is a binominal coin, struck evidently by Bahrám Sháh. Obverse:—*A'dl us Sultán ul Azim Bahrám Sháh*. Reverse:—*A'zd us Sultán ul Muazzim Sanjar*. Here Bahrám seems to arrogate to himself the title of *A'zim* "the greatest" and to give his ally (A'zd) Sanjar who had helped him to retain

his throne only the title *Muazzim* "the great," or "great," simply. Grammatically there is an apparent slight, but conventionally the title of Sanjar is as honorable as that of Bahrám. There is a difference, we know, for Muizz ud dín Muhammad bin Sám during the lifetime of his elder brother Gyás ud dín Muhammad bin Sám always used in his coins *Muazzim* for himself, until his brother's death when he took the title *ul A'zim*. But as I have shown above, Shams ud dín used the title *Muazzim*, as did also *A'la ud dín Masaud*; for I have two unedited small coins of his. Some two months ago I came across a find of Gazni coins in the Umritsur bazaar. There were about 500 in all. They contained several new types of Masaud III, Malik Arslán and Bahrám Sháh. The present war should cause some thousands to be unearthed and we may expect novelties for some time to come.

I now proceed to examine the coins in Plate VI. The first one is a small *Kashmiri* coin with the date (8)74 on it. It is a coin of Haider Sháh and confirms my statement in my paper on the Kashmir Sultans, that this king was reigning at that time, although his accession is usually marked in 878.

Nos. 2 and 3 are very pretty little novelties, of Muhammad Sháh and Sikandar Sháh. They are of copper. Obverse:—names of kings. Reverse:—the title *Sháh*. They are much smaller than Gyás ud dín's coins with similar inscriptions. They were evidently a revival of the small coins of Shams ud dín and Nasir ud dín Mahmúd and Muizz ud dín.

Nos. 4 and 5 are two anonymous coins of Humáyún, bearing the date 946. No. 4 was struck at Agra.

No. 7 a rupee, full sized, of Humáyún's, struck after his return in 962. It resembles very closely, in its get up, the rupees of Muhammad Súr. As yet all the silver coins of Humáyún which have been described have been thin and light, after the fashion of the *tankahs* of Central Asia. The inscriptions are very distinct. Obverse Area:—*Muhammad Humáyún. Bádasháh Gázi* 962. Margin:—*Us Sultán ul Adil Abú ul Muzaffar, Zarb (Dehli?)*. Reverse Area:—*the Kalimah*. Margin;—names and titles of the four companions of Muhammad.

No. 8 is a rupee of Muhammad Sháh of Bengal. Obverse Area:—*Muhammad Shah Sultan Gázi, Khallad allah mulkahu wa Sultanahu*; margin:—*Shams ud Dunya wa ud dín abu ul Muzaffar, Zarb, Satgdon*. Reverse Area:—*the Kalimah*, with a star; margin:—the names of the four companions and their titles together with the date 962. There is a difference between the titles of Umr in the above two rupees. In Humáyún's it is Al Fárúq, in the Bengal one *al Khattáb*.

No. 9, a new type of Baber's silver coins. It is of the *tankah* kind, but of uniform thickness and well struck, unlike most of the coins of

Baber. Obverse:—*Zahír ud dín Muhammad Bábar, Bádsáh Ghózi* (9)37. *Khallad allah mulkahu wa Sultánahu, zarb Agra.* (The bars and knots are not peculiar to the Kashmir coinage. They are found on the anonymous coins of both Baber and Humáyún). Reverse Area:—*the Kalimah*; Margin:—names and titles of the four Companions.

Nos 10, 11, 12, are three varieties of a new type of Humáyún's anonymous coinage. They were all struck at *Champánír*. Firishtah spells this word چانپانير. The coins all agree in giving it حسانير. The inscriptions of these coins give a new feature—a title to a city. Champánír is entitled the noble city *Shahr i Mukarram*. It speaks well for Humáyún's nature that he could so style a city he had just conquered; for the date of the coins is that of the conquest of the city 942. These coins too introduce a second new feature in Humáyún's anonymous coinage. Instead of *Fí ut táríkh*, they have *ba táríkh*. Obverse:—*Zarb Shahr i Mukarram*. Reverse:—*Champánír ba táríkh* 942. No. 11 belongs to Dav. Ross, Esq.

No. 13 is another of the anonymous coins of either Baber or Humáyún. I give it for two reasons: (1) It has full inscriptions. (2) The bar running across the Jaunpur anonymous coins resolves itself into a word *Mutabarrak*, the title of the city—the *Blessed*. Obverse, *Ba Dár ul zarb Khitta i Jaunpúr Mutabarrak*. Reverse:—*Fí ut táríkh san* 937; ornaments at the top and bottom. Most of the coins of Jaunpúr have a star on the obverse of one kind or other. But all have the bar, with the first letter and last one missing. All I have, have *dar ul zarb* on them too, although this is omitted by Thomas. The bars on some of the other anonymous coins may by the discovery of fuller specimens turn out to be some words or other.

Nos. 14, 15, 16, 17 and 18 are small copper coins of the Súrí family, forming of themselves a little set, out of which only one, No. 17, has been noticed by Thomas. No. 15 is the first of the set. Obverse:—*Khalífah uz Zamán* 947. Reverse:—*Sher Sháh us Sultán*. This is a very small coin indeed for Sher Sháh.

No. 16 is also Sher Sháh's, but it is larger and heavier than 15 and has a different inscription. Obverse:—*Sultán Khalífah uz zamán*, Reverse:—*Sher Sháh ul A'dil Sultán*.

No. 17 is Islám Sháh's, noticed by Thomas, No. 364, p. 418. I have given it here to complete the set at one view. No. 18 is Muhammad Sháh's Súrí. Obverse:—*Sultán Muhammad A'dil Sháh*: Reverse:—*Khalífah uz zamán Abú (ul Muza'far)*.

No. 14 is Sikandar Súrí's. Obverse:—*Khalífah uz zamán* 962. Reverse: *Sikandar Sháh us Sultán* 962. Thomas does not notice any halves of the large copper coins of any of the five Súrí kings. Halves of Sher Sháh are common, those of Islám Sháh are rare, those of Muhammad Adil

Sháh are extremely rare, while I have only seen one of Ibrahim Sháh and not one of Sikandar Sháh's. General Cunningham had a large copper one of Sikandar Sháh. Mr. Delmerick published one of Ibrahim's. The large coins of the other three are common, the greater numbers of course being Sher Sháh's and Islám's. I have not as yet come across a small coin of Ibrahim's. This is one of the things I am looking for. The Sikandar Sháh, whose coin is given in this plate No. 2, I believe to be the one who reigned in 795 for 45 days. A comparison of this coin with No. 275, p. 311 of Thomas, of which I have a most perfect specimen, leads me to this conclusion. Now if a king who reigned only 45 days could in that short time get out no less than *five* kinds of coins, I think we have a right to look out for the same number of varieties in the coins of kings who reigned longer. Scientific and systematic search with duly chronicled results ought to lead to much fuller knowledge respecting the coins of the Pathán's and their successors, and indeed with respect to the whole of the coins of the Empire of India from the time of Alexander the Great and Chandra Gupta to the times of Her Most Gracious Majesty the Empress of India and Queen of England.

As old coins are found, they find their way into the bazaars, where, if there is no purchaser at other than bullion rates, they are ruthlessly melted down, the silver being good, in order to supply metal to the makers of jewels. In this way undoubtedly thousands of coins disappear annually of which our museums and cabinets are standing in need. Meanwhile inasmuch as no Indian museum has its coins catalogued, no one knows what any collection may contain or may be in need of. Collectors would undoubtedly often present coins to museums which want them, if these wants were known. Students cannot use our Indian museums profitably until they know what the museums contain: and yet the end and object of all museums is an educational one. Hence I cannot help bringing this matter forward as one of the greatest importance in making our museums more useful in the promotion of historical studies.

Several other new varieties of coins including a rupee of Shams ud din Altamsh, a tankah of silver of the same king with *rays* round one side to represent *the sun* (Shams), a new variety of Reziáh's and one of Kutub ud din Mubárah Sháh's together with several others must stand over to a future paper, in which I hope to be able to show that No. 158, p. 190 of Thomas was struck in *Talang* (Telangana), just the same as No. 11 of Plate IV of the Society's Journal of last year.





*Memorandum on Coins of the Sunga Dynasty.*—By H. RIVETT-CARNAC, Esq., C. S., C. I. E., F. S. A.

(With three Plates.)

I have to offer a few remarks on some more coins of the Sunga Dynasty submitted for the inspection of the Society.

Plate VII, No. 1 is a coin of quite a different type from those already sent. Mr. Carlleyle reads the inscription on it as *Ramadata*.

No. 2, A and B are 2 small coins with the legend *Achya* or *Bhanga*. (Mr. Carlleyle.) On the other side is what looks like the Buddhist wheel.

No. 3. The legend on this coin of *Bhanu Mitra* corresponds with that on the large coins already submitted to the Society and described by Mr. Carlleyle. The shape of the coin is, however, different, and a figure which Mr. Carlleyle takes for the Nirvána has been stamped in above the legend. There may, however, perhaps be some doubt whether this is intended for a recumbent figure of Buddha. It looks indeed more like a standing female figure on a low platform, a figure somewhat resembling that on the coin of Phaguni Mitra to be noticed later.

No. 4 is a similar coin. The legend not being in quite such good preservation.

No. 5 is a coin of *Agi* or *Agni Mitra* of the same type. In this specimen, however, the figure would seem to be that of a female, the bosoms being distinctly shewn. It is not unlike the rough representation on the Kanauj series of coins, see Plate XXIV, Vol. I, Prinsep.

No. 6, A, B, C are 3 small coins of the same type. The figures are distinct enough, but the inscription in each case is undecipherable.\*

I have already sent to the Society, in illustration of Mr. Carlleyle's paper, specimens of each of the various coins of the Sunga Dynasty. The specimens sent were specially selected on account of the legend and the marks stamped on the obverse. The design on the reverse is hardly of so much importance, but it may be interesting to notice the Monogram or device chosen by each king. From a large number of specimens I have selected those now sent to illustrate as far as possible these points. Unfortunately none of the specimens are in very good preservation. The coins when found looked most hopeless. (See No. 7 specimen in its original condition now sent.) But by a careful process of boiling and cleaning the legends and stamps on the reverse have been rendered sufficiently clear.

\* [They are probably coins of *Sarya Mitra*. On No. 6 B, the letters *s*, *y*, *m*, and on No. 6 A, the letter *s* can be distinguished. Ed.]

It is a curious fact that in hardly any case has it been possible to preserve the design on the reverse. Under the process of cleaning, what I may call the back of the coin has almost invariably flaked away. And this will hardly be wondered at when the condition in which the coins were originally found is seen.

The devices of the different monarchs may be noticed as follows:

*Bhumi Mitra.* The coins of this king, besides being very numerous, are nearly all in fairly good preservation. The device on the reverse is distinct. A standing figure on a platform, between two poles or pillars of victory, or whatever they may be called, each staff surmounted by three cross-bars, and the head surrounded by rays or flames. In the specimen No. 8 the figure holds what looks like a snake in its hand. The snake or line is not so distinct in all the coins (see Nos. 9, 10).

*Agi or Agni Mitra.* The coins numbered Nos. 11, 12 in Plate VIII bear nearly the same device as those of *Bhumi Mitra*. And of this king also it is to be noticed, that the coins, besides being numerous, are, comparatively speaking, in excellent preservation. Here also is a figure with rays or flames issuing from the head. This figure also stands on a platform between poles or staffs of victory. But in this case each staff is surmounted by what looks like a thistle or a *ghara*, whereas in *Bhumi Mitra's* coins at the summit of each staff are, as already noticed, three cross-bars. The smaller of *Agni Mitra*, Nos. 13, 14, 15, exhibit a different device. The standing figure has in its hand what would seem to be a snake. There are no square platform and no side poles. At the base are rays or flames.\* In fact the device is nearly the same as that on the coins of *Phaguni Mitra* now to be noticed.

*Phaguni Mitra*, Nos. 16, 17, 18, 19. These coins also are numerous and fairly well preserved. The device shows a standing female figure surrounded by what look like rays or flames.\* In the right hand is a club (?), lower down and also on the right side a device or monogram is clearly distinguishable.

The coins of *Bhadraghosa*, *Surya Mitra* and *Bhanu Mitra*, which, together with *Phaguni Mitra*, are, I understand, not only new coins, but also record the names of kings hitherto unknown, are much less numerous than those first noticed and are not generally in such a good state of preservation as those of *Bhumi*, *Agni* and *Phaguni*. Those of *Bhadraghosa* indeed are in most cases scarcely legible. And had it not been for the beautiful little specimen which came into my hands before the find in Bareilly, there might have been some difficulty at first in establishing the legend on these

\* [The base rather resembles the lotus-seat on the reverse of some Gupta coins. Ed.]

coins. Not one single specimen shows, with any distinctness, the design on the reverse. Two of the best in this respect that I have, are marked Nos. 20, 21. On these a female figure, resembling that on the coins of *Phaguni Mitra* can just be made out.

*Bhanu Mitra.* The device on Nos. 22, 23 is tolerably clear. The sun with pointed rays surmounts a semicircle which may be intended to represent a serpent. Below is what may be taken for a squat figure supporting the sun (?) but the device is perhaps hardly sufficiently distinct to admit of any very satisfactory conclusion being drawn. This may possibly be aided by coins of other types in the possession of the Society or figured in books which are not at my disposal.

*Surya Mitra,* Nos. 24, 25. Here, as the name denotes, is the sun surmounting what would seem to be a triangular-shaped altar with the staff of victory on either side. Here also the staff has the cross-bars as in *Bhumi Mitra's* coins.

To these I have added a coin of *Indra Mitra,* No. 26, similar to those already sent. This coin has I believe been found before. The device on the reverse is somewhat different from those already noticed, and shows a standing figure on a square platform, like that on the coins of *Bhumi* and *Agni Mitra.* In the right hand of the figure is a sceptre? The Staff of Victory noticed in the other coins is wanting here.

It will be seen that of the seven kings whose coins are noticed above, six of them adopted a different device. As regards the coins of *Bhadraghosa,* it is not possible to speak with certainty. It will be noticed too that these six *Mitras* have all included the sun, or the rays of the sun on their coins, suggesting possibly their *Mitra* or *Mithraic* origin. The symbols on the obverse of the coins have been described by Mr. Carlleyle, and in all cases the design is the same or nearly the same. There is little or no difference in the shape of the letters used. The legend is surmounted by three symbols which are in all cases the same, although in the coins of *Bhadraghosa* and *Bhanu Mitra* the central symbol appears to have been punched in separately. All this would seem to suggest that these seven kings belong to the same dynasty. Mr. Carlleyle has attributed them to the Sunga kings, who, according to Prinsep and other authorities, commenced to reign over Magadha about 172 B. C.

I shall be glad if the Society can afford me any information regarding these kings—the succession in which they reigned and the probable dates of the coins.

In Prinsep's list *Agni Mitra* appears next after *Pushpa Mitra* the first of the line. And this arrangement coincides with that given by Wilford and others in the *Asiatic Researches.* If the condition of the coin and the quantity in which it is found are of any significance, then *Agni*

*Mitra* might fairly be supposed to be one of the most recent of these kings.

I have no suggestions to offer regarding any of them, save *Bhadraghosa*. It will be seen from Prinsep's list and also from Wilford's Essay in Asiatic Researches, Vol. XI, that one *Ghosa Vasu* preceded *Vajra Mitra*. Regarding this *Vajra Mitra*, Wilford in his Essay on Vikramaditya and Salivahana (see Asiatic Researches, Vol. IX, page 145,) writes as follows: "The first Vicramáditya is mentioned in the Cumáricá-c'handa; in which it is declared that after 3020 years of the Cali-yuga had elapsed, then would Vicramárca appear. He reigned fourteen years, and of course died in the year 3034, when the era of Yudhishtir ended and his own began. In the list of the kings, who were to appear in the Cali-yuga, to be found in the Bhágavata, Brahmánda, Váyu and Vishnu Puránas, there are two kings, the seventeenth and eighteenth in regular succession from Chandragupta, who reigned seven years each. The first is called *Vicrama*, and the other *Mitra*; and they are supposed to have been originally meant for *Vicrama mitra* who, according to some, reigned fourteen years; and in these lists, the father, or predecessor of Vicrama, is called *Ghoshá Rájá* or the king of thickets, which is another name for Gandharupa, or Gadhá-rájá in the west. This looks like an interpolation; and the more so, as it will appear hereafter, that Ghoshá-Rájá died in the year 440 of our Era."

The *Vajra Mitra* of Prinsep's list is here supposed to be Vikrama Mitra or Vikramáditya, whose father and predecessor is Ghoshá Rájá. Wilford thinks that this name Ghoshá looks like an interpolation. But perhaps the discovery of a coin belonging to this period, bearing the name of Ghoshá, may help to establish the correctness of the entry?

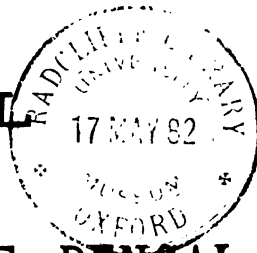
It is perhaps also worthy of notice that Prinsep's list of the Kanwa Dynasty gives the name *Bhumi Mitra*, a contemporary of Vikramáditya. The coins of *Bhumi Mitra* and *Bhadraghosa* are certainly of about the same period, and possibly of the same dynasty. I am aware that since Wilford and Prinsep wrote, Mr. Thomas, General Cunningham and others have done much to clear up the doubts existing in respect to early Hindú Chronology. I am in hopes that those who are better informed than myself on the subject may be able to draw some practical conclusion from the coins which I have been able to collect.

I may add that the mass of them have now been tolerably well cleaned. They have been carefully examined and read by Mr. Carlleyle and myself, but no new types save those sent to the Society have been found. They are entirely at the disposal of the Society if they wish to see them, and I hope that a complete set may be accepted for the Society's Museum. The only reservation I have to make is, that a complete selection of the best specimens should be reserved for the British Museum, which Institution ought, I think, to have the first choice.

# JOURNAL

OF THE

# ASIATIC SOCIETY OF BENGAL,



Part I.—HISTORY, LITERATURE, &c.

No. III.—1880.

*Remarks of the Afgháns found along the Route of the Tal Chotiali Field Force, in the Spring of 1879.*—By LIEUT. R. C. TEMPLE, B. S. C., F. R. G. S., M. R. A. S., &c. (With 3 Plates and 2 Maps.)

## PART I.

This is the last of a series of papers on the march of the Tal Chotiali Field Force in the spring of last year, and closes my observations on the subject.\* As the range of observations to be made along an entirely new and unknown route such as this is necessarily large, I found it impracticable to connect them all into one paper, and this has obliged me to repeat in the several papers certain remarks which were necessary to the exposition of the subject-matter of each, and I trust therefore to be excused for repeating here much that is to be found elsewhere. I have also again to make

\* Journal of the march of the 2nd Column of the Tal Chotiali Field Force communicated to the Quarter Master General in India.

An account of the march of the 2nd Column Tal Chotiali Field Force, to the R. G. S., with map.

Sketch Map of the march of the Tal Chotiali Field Force, published by the Surveyor General of India.

Notes on the Formation of the Country passed through by the Tal Chotiali Field Force, and Rough Notes on the Distribution of the Afghán Tribes about Kandahar, to this Society.

the excuse to be found in all my papers on this subject that my notes were from the nature of the circumstances under which they were made necessarily of a rough and hurried kind and contain doubtless many mistakes, but as it seems the route is to be abandoned, it is likely to be a long while before it is again traversed throughout, and I hope therefore my notes will be found to be of value.

The geography of the route, thanks to the exertions and reports of the officers of the Survey of India\* who accompanied the Force, is now well known and needs no remark here. Suffice it to say that the Force was sent from the Pishin valley towards Dera Gházi Khán viá the Kákar country and BA'RKHO'M to open up what is known as the Tal Chotiali Route, and that the present writer was attached to the 2nd or principal column of the Force. The route taken and referred to herein is shewn in detail in the map attached, which was published for me by the Surveyor General of India, and in its general aspect in the map attached to my paper on the Geology of the Route in a former number of this Journal.†

## II. *The Tribes en route.*

Before proceeding to discuss what was seen of the various tribes of Afgháns along this march, it may be as well to give a brief account of what is known of the vexed question of the origin of the Pathán and Afghán Tribes.

The people of the nation known in India as the Pathán Tribes call themselves BANI' ISRA'ÍL or PUKHTU'N (pl. PUKHTA'NA), and the Afgháns, as a race of these Pathán Tribes, claim descent from TA'LU'T‡ or SA'RU'L (the Saul of the Bible) as their ancestor. According to native accounts SA'RU'L had two posthumous sons BARAKI'A (BARACHIAH) and IRAMI'A§ (JEREMIAH), both born in the same hour of different mothers of the tribe of LA'WI' (LEVI). They rose to high positions under David, Saul's successor; thus Barakía became prime minister and Iramía Commander-in-Chief. In SULIMA'N's (Solomon's) time they were succeeded in their posts each by his son, Barakía by ASAF and Iramía by AFGHA'NA, and Afghána is said to have had the building of the BAITU-L-MUQADDAS or Temple of Jerusalem. Asaf left 18 and Afghána 40 sons, and these founded important families or tribes. When the BAITU-L-MUQADDAS was destroyed by BAKHTU-N-NASE (Nebuchadnezzar) the Afghána Tribe, adhering to their forefathers' religion, were banished from SHA'M (Palestine) and took refuge in KOHISTA'N-I-GHOR and KOH-I-FIROZA. Here their neighbours called them Afghán (or Aoghán)

\* J. A. S. B., for 1879, paper by Major Waterhouse.

† J. A. S. B., for 1879, Vol. XLVIII, Part II.

‡ Raverty. Gram. of Pushto. Introd. 1860.

§ BIRKIYA and ARMIAN according to Raverty.

or Baní Isráíl. From GHOB by degrees the Afgháns extended to the KOHISTA'N-I-KA'BUL, KANDAHÁ'E and GHAZNI.

Until the advent of Mubammad the Afgháns followed the religion of the Pentateuch or TAUBET KHWA'N. But in the 9th year of the announcement of Mubammad's mission they heard of him from one of the Baní Isráíl by name KHA'LID-BIN-(OR IBN)-WALI'D. A deputation was sent to Medina under one KAIS (also KISH, KESH or KAISH) a leading Afghán, who became a zealous Muhammadan and received several special marks of the Prophet's favour, among which the title of malik or king, originally conferred by the Almighty on Saul, their great ancestor, was conferred individually on the Afgháns.\* Arabic names also were given them; thus KAIS was called ABDO-R-BASHI'D (Servant of the Wise). And to him was also given the title of PIHTA'N (PAṬHA'N) meaning in Syriac a rudder, signifying that he, Kais, was the pilot of his people. From this Kais are descended all the Afghán Tribes properly so called, and all Afgháns are Paṭháns, the name by which the nation is most generally known in India. But there are many tribes who are Baní Isráíl and Pukhtún (Pukhtána) who are not Afgháns.

The Pukhtún, erroneously known in India as the Paṭhán Tribes, then are divided into those descended from Kais and those who are not. Those who are so descended are generally known as Afgháns and the others as merely Paṭháns, though the whole nation is also known as Paṭháns.†

The following is a list of the principal tribes of the present day generally acknowledged to be Afgháns :

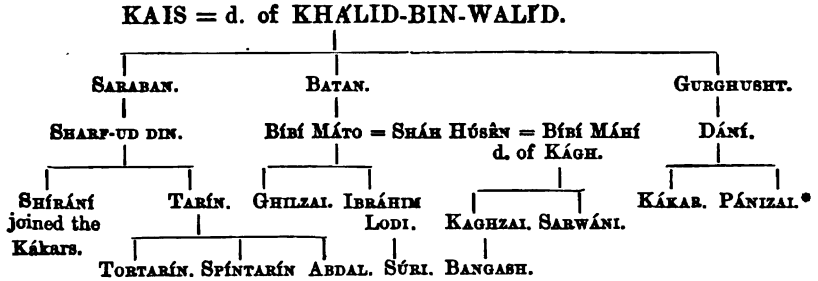
- |              |                |                |
|--------------|----------------|----------------|
| 1. Duránis.  | 8. Túris.      | 15. Mangals.   |
| 2. Taríns.   | 9. Zaimukhts.  | 16. Jadráns.   |
| 3. Kákars.   | 10. Orákzais.  | 17. Shinwáris. |
| 4. Ghilzais. | 11. Dáwaris.   | 18. Mómands.   |
| 5. Povindas. | 12. Khóstwáls. | 19. Yúsufzais. |
| 6. Wazírís.  | 13. Afrídís.   | (Kóhistánís.)  |
| 7. Shíránís. | 14. Tájís.     |                |

Kais married a daughter of KHA'LID-BIN-WALI'D by whom he had three sons, SARABAN, BATAN and GURGHUSHT and from them descend some of the principal tribes above mentioned, as may be seen by the accompanying genealogy.

\* At the present day the head of a Paṭhán family or tribal subsection is called malik.

† There are several legends to account for the names of Afghán and Paṭhán, that above given in the text is the commonest. The following are, however, worth noticing.

The word Pukhtún (Pukhtána) is said variously to be of INRA'NI or IBRA'HIMI (Hebrew) and of SU'RIANI (Syrian) origin, and to signify "delivered" or "set free."



The above genealogy which must of course be taken for what it may be worth, includes a good many of the ancestors of the present Afghán Tribes, but not by any means all. Each, however, has its own genealogical legend. It will be observed that the Duránis, the chief or largest tribe are not included in the above genealogy.

The Pathán Tribes we have to deal with in this paper are the Duránis alightly, and with the Tarins, Kákars, Lúnis and Zarkháns more fully. Of

The common tradition about Afghán is, that the mother of their ancestor Afghána gave him the name because of her exclamation on the favourable answer to her prayers in the pangs of childbirth for a quick delivery, for she said on the birth of the child, "Afghána (I am free)," this being the traditional interpretation of the expression. Another tradition is, that she called out in her pangs "AFGHÁN" or "FIGHÁN" an expression of pain in the Persian language. According to the Kákars legends "Pathán" is a corruption of PRÉT KHÁN, the title given to the KAIS above mentioned by the Prophet. Raverty in the Introduction to his Grammar of Pushto gives an extract from the TAZKIRÁT-UL-MULÚK or History of the SADDOZAIS according to which the words PUSHTO (or PUKHTO) and PUSHTŪN (or PUKHTŪN) are derived from PUSHT or PASHT the name of the place Afghána first fixed on as his residence on leaving Palestine. In the same work a characteristically oriental derivation of the word Afghána is thus given. "The original meaning of Afghánah is fighán, a Persian word which means complaint, lamentation, because he (KAIS) was a cause of lamentation to the devil, the jinns and mankind. From the constant use of the word the vowel point *Kasrah* was dropped after which the other letters could not be sounded without the aid of a vowel and *alif-i-wasi* was placed before the *gh* and thus made Afghánah." And the term Pathán is further derived from batán or patán which in Arabic (بطان) signifies the keel (Raverty says keelson) of a vessel, "without which it cannot sail, neither can the ship of war sail along without the keel of battle."

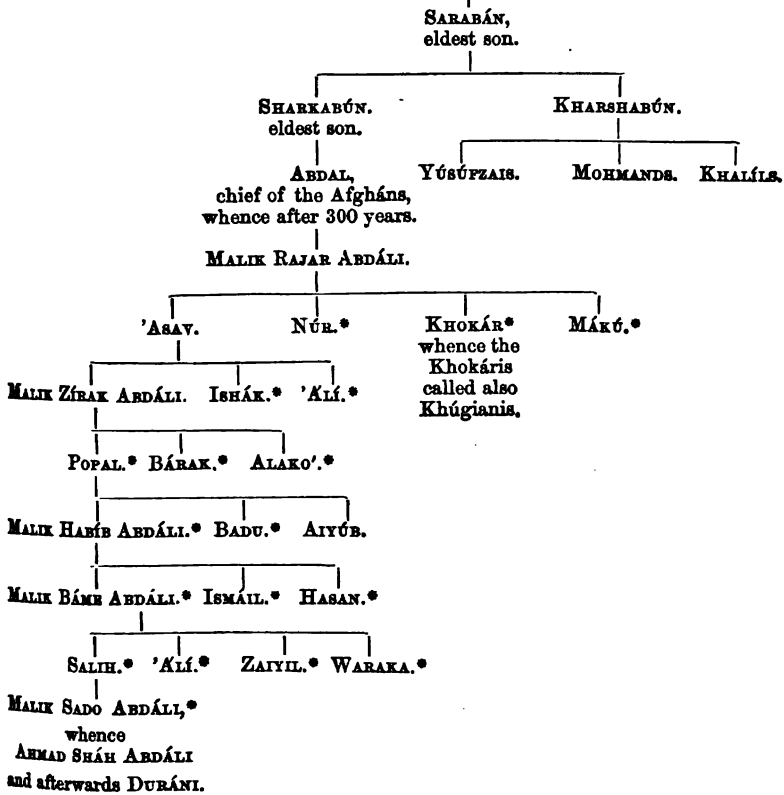
\* The true Afghán descent of the posterity of the 2nd son BATAN is more than doubtful. It appears that BÍBÍ MÁTO (or MÁTU) the daughter of Batan formed an illicit connection with Sháh Husein, (or HÚSSÊN, called also MAST'ALI) a Persian Prince of Ghór and was made to marry him. The offspring resulting was named Ghalzai that is "the child of the theft." She, however, also bore him a son Ibráhim Lódi from whom the former Pathán rulers of Delhi sprung. This Sháh Husein was also by a fraud induced to marry BÍBÍ MÁHÍ (or MÍHÍ) daughter of the KÁGH or bard who managed his marriage with BÍBÍ MÁTO, and from her are descended the present Kághzai, Bangash and Sarwáni Patháns.



these the Duránis, Taríns and Kákars are Afgháns proper and so probably are the Lúnis, but the Zarkháns are merely known as Paṭháns.

First then regarding the Duránis, the chief of the Afghán clans. The origin of this tribe is apparently unknown, but it seems to be generally believed that it emigrated from the mountains of Ghór. According to the TAZKIRA' T-UL-MULU'K above quoted, the Duráni descent is as follows :

KAIS or ABD-UR-RASHÍD.



The old name of the Duránis was Abdáli, till Ahmad Sháh, an Abdáli of the Sadozai family or subsection of the Pópalzai section of Abdális, the hero of Pánipat, in 1747 took the title of DURR-I-DURRA'N, the Pearl of Pearls, and named his tribe after himself Duránis. The two great divisions of the Duránis are ZÍRAK and PANJPA'O, and of these the most honorable by descent are the ZÍRAKS. The ZÍRAKS are usually divided into 4 sections (1)

\* Those marked with an asterisk with the addition of Zai are the names of present Duráni sections or subsections.

POPALZAI, (2) ALAKO'ZAI, (3) BA'RAKZAI, (4) ACHAKZAI and the PANJ-PA'OS into 5 sections, thus, (5) NU'RZAI, (6) ALI'ZAI, (7) ISHA'KZAI, (8) KHU'GIA'NI, (9) MA'KU'.\* Along our present route, however, only the Achakzais were found in any numbers, but a few of the Pópalzais and Bárakzais were also found in the Pishin. As far as I know there is but one Pópalzai village and one Bárakzai village in Pishin, but there are a good many Bárakzais scattered about the valley formerly concerned with the late government there. The Pópalzais of the valley are of the SADOZAI subsection. †

The BA'RAKZAIS met with in the Pishin are all MUHAMMADZAIS, ‡ connected in some way with the late government of the valley. Sirdár KHU'SHDIL KHA'N of the royal house seems to have been Governor of the

\* There is also a low class of Duránis called SÁGZAI found in the ARGHISÁN valley.

† The Sadozais were the old ruling family of the Pópalzais and under ASAD-UL-LAH (of the Tribe ABDÁLI, sec. Pópalzai, subsec. Sadozai) threw off the yoke of the Persian at Herát in 1716, soon after Mír VAIS, the Ghilzai, began to assert the independence of the Afghán nation. On the assassination of NÁDIR SHÁH in 1747, AHMAD KHÁN, a Sadozai (afterwards Ahmad Sháh Duráni) gradually conquered for himself all Afghánistán and most of the Panjáb, and at his death in 1773 he was ruling from the Sutlaj to the Oxus and from the Himalayas to Khorásán. Till 1793 TAIMU'R SHA'H his son reigned, but at his death his kingdom was fought for among his children in the way so common in oriental history, mainly resulting in the loss of the Panjáb to the Sikhs. The brothers who were ruling at the time of TAIMU'R SHA'H's death were

ZAMA'N SHA'H in Kábul.

HAMA'UN SHA'H in Kandahár.

MAHMÚD SHA'H in Herát.

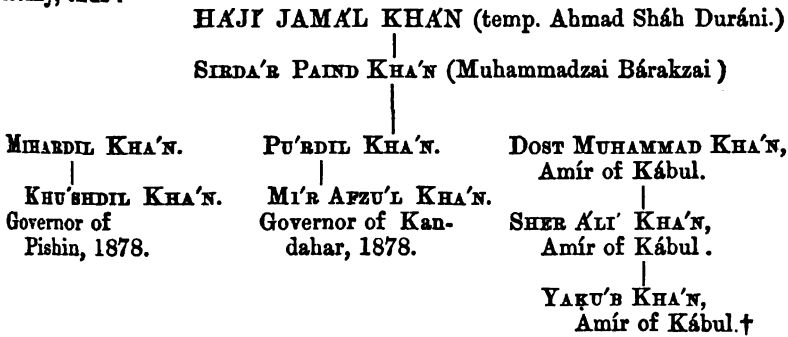
ABBA'S MÍRZA' in Pesháwur.

KO'HANDIL MÍRZA' in Kashmír.

Of these ZAMÁN SHÁH and MAHMÚD SHÁH obtained the throne of Afghánistán with the usual bloodshed, and after them another brother, the famous SHÁH SHÚJAH-UL-MULK, about 1809. Mahmúd Sháh, however, ousted him and again ruled till 1818, when he was deposed by the BA'RAKZAI brothers, sons of PAIND KHÁN, his Wasír, and son of HÁJÍ JAMÁL KHÁN (a MUHAMMADZAI BÁRAKZAI), the Sirdár who had helped Ahmad Sháh in the early days of his sovereignty. Since that date the Mohammadzai Bárakzais have fought among themselves for the throne resulting in the victory and sovereignty successively of the Amirs Dost Mohammad Khán, Shér Ali Khán and YaSúb Khán the late ruler. In 1839 the first Afghán war, the history of which is of course still fresh in our memories, was undertaken to restore Sháh Shújah-ul-mulk, the Sadozai, to his throne at Kábul. The Sadozais are still highly respected, and the Pópalzais from which they sprung are the most honoured among Afghán Tribes. During the greater part of the Sadozai ascendancy, the ministers were chosen from the BÁME'ZAI subsection of the Pópalzais. The chief other subsections of the Pópalzais as far as I could ascertain are (3) MARSINGZAIS, (4) KHA'NZAIS, (5) AIYÚBZAIS, (6) MADOZAIS, (7) NO'AZAIS.

‡ The other subsection of the Bárakzais as far as I could ascertain were (2) ACHALZAIS, (3) SULIMÁNZAIS, (4) KHUNSEI'ZAIS, (5) BAIANEZAIS.

Pishin under Shér Alí, but never to have lived there, and I was quite surprised to find how little appeared to be known about him locally. His fort, called Khúshdil Khán, is in the north-east corner of the Pishin, and from it his Naib or Lieutenant NU'R MUHAMMAD KHA'N (Muhammadzai Bárakzai) seems to have ruled and collected the revenues. This last fled at our advance into the Pishin in 1878, and the valley was handed over for government under Sir R. Sandeman, agent for Beluchistán, with the fort Khúshdil Khán, to another NU'R MUHAMMAD KHA'N, LUGA'RI', a Belóch in our service as Názim or ruler.\* This Khúshdil Khán's descent was given me locally, thus :



\* Another and perhaps the most true local story is that Khúshdil Khán died about 7 years ago, say 1872, and in former days ABD-UL-KARÍM KHÁN (Muhammadzai, Bárakzai) was his Naib, but on Shér 'Alí's final accession in 1869, Khúshdil Khán lost his government and went to reside in Kandahár, while NU'R MUHAMMAD KHA'N (Muhammadzai Bárakzai) was sent to govern the Pishin direct from Sher 'Alí himself.

- † Páind Khán's sons by 5 mothers were—
1. { FATEH KHA'N Wazir of Mahmúd Sháh,  
 MUHAMMAD AZIM KHA'N,  
 TAIMU'R KHA'N.
  2. { PU'R DIL KHA'N, Governor of Kandahár,  
 SHEHDIL KHA'N, Governor of Kandahár,  
 KOHANDIL KHA'N, Governor of Kandahár,  
 RAHIMDIL KHA'N,  
 MIHARDIL KHA'N.
  3. { DO'ST MUHAMMAD KHA'N, Amir of Kábul,  
 AMI'R MUHAMMAD KHÁN,  
 JAMÁL KHÁN.
  4. { SULTÁN MUHAMMAD KHÁN,  
 YÁR MUHAMMAD KHÁN,  
 PÍR MUHAMMAD KHÁN,  
 SAYAD MUHAMMAD KHÁN.
  5. { NAWÁB ASAD KHÁN,  
 NAWÁB SAMAT KHA'N,  
 NAWÁB JAHAR KHÁN.

The **ACHAKZAI** section of the Duránis is the tribe inhabiting the mountains known as the **KHOJA AMBA'N** Range, the **TOBA** Plateau, and the **PISHIN** and **KADANEI** valleys in part. They are said to have been divided off from the **Bárakzais** by **Ahmad Sháh**, as that tribe was getting too powerful, and I have met **Paṭháns** about **Kandahár**, who classed the **Achakzai** as a **Bárakzai** subdivision. The **Achakzais** are divided into **BAHA'DURZAIS** and **GAJANZAIS**.

#### BAHÁDURZAIS.

GHABEZAIS.  
KA'KOZAIS.

SHAMUZAIS.  
FA'MZAIS.

BA'KARZAIS.  
ISHDA'NIZAIS.

#### GAJANZAIS.

AHMADZAIS.  
ASHEZAIS.  
BU'RHANZAIS.  
SHAMAKZAIS.  
MA'LIZAIS.  
KA'MILZAIS.  
ADAZAIS.  
ADRAKZAIS.

HAMZAIS.  
MALIKZAIS.  
LA'LIZAIS.  
MA'PIZAIS.  
HU'SENZAIS.  
SULIMA'NZAIS.  
ABDULLAZAIS.  
BA'ZAMZAIS.

ALOZAIS.  
JULIZAIS.  
MUSHKIZAIS.  
BA'DAZAIS.  
SHAKARZAIS.  
USMA'NZAIS.

I, however, came across two subsections of **Achakzais** not here mentioned called **HABI'ZAIS**\* and **ABDALS** in the **Pishin**. This name **Abdal** may perhaps only be the title of the **malik** or chief as the present **Sirdár MÍR ASLAM KHA'N** of the **Achakzais** is locally called **Mír Aslam Khán Abdal** or **Abdáli**, as also is **MADAT KHA'N**, the head of an **Achakzai** village in the **Pishin**, called after him. All the inhabitants of the last village, however, are called **Abdals**.

The next clan we have to deal with are the **Taríns**. These are the second of the **Afghán Tribes** in point of importance and national estimation. Their legendary descent from **Kais** is clearly made out. **SARABAN**, **Kais's** eldest son, had five sons of whom the second was **Tarín**. **Tarín** had three sons, **Tór Tarín**, **Spín Tarín** and **Abdal**, and from the two eldest are descended the modern **Tarín Tribe**. According to a legend **Tarín's** dark son was called **Spín Tarín** or **Fair Tarín**, and his fair son **Tór Tarín** or **Dark Tarín**. The **Tór Taríns** inhabit the **Pishin valley** and the **Spín Taríns** the country about **Tal** and **Chotiáli**. **Lumsden** subdivides this clan as follows :

\* **Lumsden**, however, makes out the **HABI'ZAIS** to be **Tór Taríns**, but as far as I could ascertain, they are **Achakzais**.

## TOR TARINS.

|             |                  |             |
|-------------|------------------|-------------|
| BATAZAIS.   | ÁLÍZAIS.         | HABÍBZAIS.  |
| HAIKALZAIS. | NÚRZAIS.         | HAMRÁNZAIS. |
| MÁLIZAIS.   | KULÁZAIS.        | KARBELAS.   |
| KADAZAIS.   | MÚSIZAIS.        | SÁZAIS.     |
| KHÁNIZAIS.  | ABDURRAHMÁNZAIS. |             |
| KHÁMZAIS.   |                  |             |

## SPÍN TARINS.

|            |           |          |
|------------|-----------|----------|
| SHÁDÍZAIS. | LASEÁNIS. | ADWÁNIS. |
| MARPÁNIS.  |           |          |

This list agrees with that given me *en route* as far as the Spín Taríns are concerned, but as regards the Tór Taríns mine differs considerably. First I would remark that the HABÍBZAIS are, as far as I could make out, Achakzais and not Taríns at all. Next as regards the Karbélas, who have been hitherto put down as Taríns somehow connected with the Pishin Sayads, I have ascertained the following particulars. The Karbélas inhabit a village of the same name near SAYAD PAIND in the Pishin and call themselves Sayads. They are, however, disowned by the Sayads and also by the Taríns, Kákars and Duránis. The local legend regarding their origin is this. In days gone by, a little child by name Karbéla, was travelling through the Pishin in a kásila. He lost his party and was seen running along the road, crying, by a kind-hearted SAYAD who took him in and nourished him, but declined to admit him into his family or sect. On growing up, he married a Tarín woman, and from him there sprang by Tarín intermarriages the present race of Karbélas, now said to be 600 strong in men. This is the Sayad version of the story, the Tarín legend is the same except as regarding intermarriages with themselves. They say the mother of the original Karbéla came from no one knows where and disown the whole race. The probabilities are, they sprung from Paṭháns who had to take refuge in the Pishin from some other distant place. The KHÁNIZAIS are divided into LÚR KHÁNIZAIS and DAB KHÁNIZAIS according to my information. In the list of Tór Taríns which I collected, the following do not appear in Lumsden.\*

|           |           |            |
|-----------|-----------|------------|
| MÁLÍKYÁBS | MANZAKAIS | KAMÁLZAIS. |
| MÁEZAIS   | HÁRU'NS.  |            |

While his list contains the following which are not found in mine.

|          |                 |             |
|----------|-----------------|-------------|
| KÁDAZAIS | NÁOZAIS         | HAMRÁNZAIS. |
| KHÁMZAIS | ABDURRAHMÁNZAIS |             |

\* There are a few trifling variations in some names regarding which see below on Language.

The probabilities are that a combined list would reach nearest the true statement of their subsections.\*

Like the Taríns, after whom they rank, *i. e.*, third on the list of clans, the Kákars claim direct descent from KAIS. Firstly, Kais's third son was GURGHUSHT who had three sons DÁNÍ, BÁBÍ and MANDÍ. Of these DÁNÍ had four sons, KÁKAR, NÁGHAR, DÁDÍ and PÁNÍ.† Secondly SHÍRÁNÍ the eldest son of SHARÍF-UD-DÍ'N, eldest son of SARABAN Kais's eldest son, on account of family squabbles joined the Kákars and called himself a GURGHUSHTAI. Such is the common legend. The Kákars themselves vary it thus. Kais went to Mecca and there obtained the name of PRET KHÁN (elsewhere PIHTÁN). His eldest son SHARÍF-UD-DIN or SARABÁN had five sons SHÍRÁNÍ, TARÍN, MYUNÍ, BARECHÍ‡ and UMAR-UD-DÍN. The mother of SHÍRÁNÍ, who was a Kákar, finding that her husband intended making TARÍN, his second son, his heir, left his protection and returned to her own tribe. Her descendants have therefore been included among Patháns and with them the whole of the Kákars under one name. This subverts the other legends which make the Kákars claim descent through GURGHUSHT from KAIS.

The following clans claim relationship with or descent from the Kákars. The GÁKARS of Kashmír along the Jhílám, the TAIMUNIS (EIMAKS) of GHOR, the FIROZKOHÍ HAZÁRAS (EIMAKS) of HERÁT, the KAYANIS of SEISTÁN,§ and lastly the KÁKARS and GHILZAIS also consider themselves nearly related in blood. Taking into consideration the unquestionably mixed blood of the Ghilzais and their legendary relationship with the Kákars, as also that of such pure EIMAKS as the HAZÁRAS and TAIMUNIS,|| the Kákar descent from Kais would seem to be doubtful.

\* Among the tribes of Tarín descent are said to be the ZAIMUKHTS.

† This would make the PA'NÍ'ZAIS separate from the Kákars, but they seem to be considered a section of them at the present day.

‡ Whence the BARR'CHÍ' Patháns of SHORA'WAK.

§ Usually called Belóchis, but really descendants of SANDAR KHE'L Kákars.

|| A pure EIMAK is perhaps, however, a misnomer. The origin of the race being quite obscure. By features they are TA'TARS and by language Persians. They are divided into TAIMU'NÍ'S, HAZA'RAS, TAIMU'RÍ'S and ZU'RÍ'S. It may help towards the solution of the Eimak origin to quote the following from Yule's Marco Polo, I, 94. "Contemporaneously with the KARAUHAHS (or KARA'WINAHS the celebrated robbers of mediæval Persia) we have frequent mention of predatory bands known as NIGU'DARIS who seem to be distinguished from the KARAUHAHS, but had a like character for truculence. Their head-quarters were about SLIISTA'N, and Quatremère seems disposed to look upon them as a tribe indigenous in that quarter. Hammer says they were originally the troops of Prince NIGU'DAR, grandson of CHAGATAI (CHAGATAI was the ruler and curse of Turkistán and a son of CHINGIZ and therefore brother to OKKODAI and uncle to MANGKU, KUBLAI and HULA'KU), and that they were a rabble of sorts, Mongols, Turk-máns, Kurds, Shúls and what not. We hear of their revolts and disorders down to

The KÁKAR Territory extends from the Pishin valley to the Borai valley and from the Zhób valley to Quetta, the line of the Bolán Pass and the MARRI (Belóch) country. They are divided into two main divisions, the Great KÁKARS (LOWE' KÁKAR) and the Lesser KÁKARS (KUCHNAR KÁKAR). As regards the Great KÁKARS, the present writer had but little opportunity of learning much. They occupy the Zhób valley and apparently are divided into—

|               |            |             |
|---------------|------------|-------------|
| KHWAIDÁDZAIS, | AKTARZAIS, | MEHTARZAIS, |
| MURSIÁNGZAIS, | AWAZAIS,   | SARGAR AIS. |

And probably also the JALAG AIS, MU'SA KHEL and KABÍZ AIS belong to this division.

The Lesser KÁKARS are divided into SULIMÁN KHEL S; AMAND KHEL S; MEHTARZ AIS; PÁNÍZ AIS; BÁZ AIS; SHAMOZ AIS; SURGAR AIS; MALAG AIS; ISÁ KHEL S; SARA'NGZ AIS, of which MULÁZ AIS and TÁRÁNS are subsections; ZAKHEP S, subdivided into AMAK AIS, KANOZ AIS and NÁOZ AIS; DUMAR S; UTMÁN KHEL S; and SANDAR KHEL S, whose known subdivisions are ALÍ- Z AIS, SHABOZ AIS, MU'RS, DARG AIS, WAHÁRS and TENIZ AIS.\* The KÁKARS about KHUNCHAGAI near Mt. KAND, variously called the SANATÍA and SIMANTHA KÁKARS, are I believe the AMAND KHEL above mentioned. They were formerly, under the name of TARGHÁNÍ S, under HÁRÍ KHÁN of infamous memory during the war of 1839, and his son KÁMIL KHÁN is now chief of the AMAND KHEL.

The next clan met with *en route* was the LU'NI (properly LONAI) KHEL, about whom very little is known. They are generally supposed to be KÁKARS by descent, but I should say from what I heard from the LU'NIS themselves and from the KÁKARS, this is not the case. They call themselves of DURÁNI descent, a claim which is allowed by their neighbours. The HAMZAZ AIS are the only known subdivision of this Tribe, but there are

1819, up to which date MIRKHAND says that there had been 21 fights with them in 4 years. Again we hear of them in 1336 about Herát, whilst in Báber's time they turn up as NUKDARIS fairly established as tribes in the mountainous tracts of KARNU'D and GHOR to the west of KÁbul, and coupled with the Hazáras who still survive both in name and character. Among them, says Báber, are some who speak the Mongol languages. The Hazáras are eminently Mongol in feature to this day, and it is very probably that they or some part of them are descendants of the KARAVNAHS or NIGU'DARIS or of both, and that the origination of the bands so called from the scum of the Mongol inundation is thus in a degree confirmed. It is worthy of notice that Ab-ul-Fazl who mentions the NUKDARIS among the nomad tribes of KÁbul says, the Hazáras are the remains of the Chagataian army which MANGKU KHA'N sent to the aid of HULA'KU under the command of NIGU'DAR OGHZA'N.

\* The Esóts of the DE'RAJA'T are sometimes called KÁKARS but this is doubtful. KA'N' KA'KARS are said to inhabit the SHA'L Valley (Quetta), but I did not see any there.

doubtless more, and I think it would be safe to include **SARÁGIS** amongst them. They inhabit a largish extent of country, for the most part considerably deserted, and used merely as grazing-ground. Their villages are mostly found in what is called the **LÚNI** Valley to the south of the **BÓRAI**, *i. e.*, between it and the Tal Valley. All the country from the **BÓRAI** Valley east of the Tal Valley as far as the **Belóch Border** and the **MÚSA KHEL** country belongs to them, except the small portion occupied by the **ZARKHA'NS** near **Chótiáli**.

Of the **ZARKHA'NS** nothing more is known except that they are **Paṭháns** and not of **Kákar**, **Tarín** or **Lúni** extraction. They are to be found about the mountains to the east and south of **Chótiáli**, in the **HANOKAI** Pass and **BA'LA' DHA'KA'**. The **MARRIS** have nearly wiped them out as a race by continual raids. In **Leech's** time\* there were three villages belonging to them near **Chótiáli**, *viz.*, **DOST MUHAMMAD**, **FAZL KHAN** and **ÁLÍ KHAN**, but I do not know if they still exist.

Perhaps the origin of the **Lúnis** and **Zarkháns** and even of some of the **Kákars**, especially the **Sandar Khél**, should be sought with that of the neighbouring **Belóch Tribes**, if one could only ascertain what that is. Indeed the **KAYANIS** of **SEISTAN** usually called **Belóchis**, are **Sandar Khél Kákars**, and there is nothing repugnant in the history of the **Belóch Tribes** to the idea of some of them being of the same descent as their deadly enemies the **Paṭháns**. For the **KAIHÍRIS** about **CHATTAR** and **PULÉJI** in **KACHI**, now acknowledged to belong to the **Belóch Tribes**, are of unquestioned **Paṭhán** descent.† And, although the presence of many **Belóchi** words in their dialects may be the result of propinquity, the similarity of face and figure of the **LÚNIS**, **SANDAR KHEL**s and **ZARKHA'NS** to the neighbouring **Belóch Tribes** of **BA'EKHO'M** is quite remarkable, and they might well have a common origin with them, especially as the **Belóchis** can hardly be called a nation, being rather an agglomerate of heterogeneous tribes. Thus the **BRAHO'IS** are probably aboriginal, the **GURCHA'NIS** a **Sindian Tribe**, the **RINDS** and **LÚMREIS** probably of **Hindú (Rájpút)** origin and the **GA'DURS** of **LAS** of **Arab** descent, while the tribes of **MAKBA'N** are **Arabs**, **Sikhs**, **Sindhís**, **Persians**, **Jats** and what not.‡

\* Major **Leech's** journeys were made about 1839.

† **Hughes's** **Beluchistán**.

‡ In connection with the probable **Turkmán** or **Mongol** origin of the bulk of the **Belóch Tribes**, the words **TUMAN** and **TUMANDA'R** are interesting. **TUMAN** or **TOMAN** was a **Mongol** division of the army, *viz.*, 10,000, and hence in the **Mongol** dominions it came to mean 10,000 generally. **WASSA'F** describing **KINSAY (KINGSSE' or HANGCHAU)** states it had "70 **TOMANS** of soldiers and 70 **TOMANS** of **RAYATS**." **Marco Polo** states its revenue in **TOMANS** of gold and **Friar Odoric** in **TOMANS** of **BALISH** (paper money). **TMAN** or **TMA** is still used in **Russia** for 10,000. In **Beluchistán** **TUMAN** means a camp and **TUMANDA'R** the commander of a camp and thence the chief of a tribe, but whether



While discussing the Pathán Tribes something should be remarked about the SAYADS found in every part of Afghánistán\* and in some numbers in the Pishin where they own several villages. Wherever they may happen to be, they are a sect apart from the surrounding inhabitants, are always respected and seem to be more intelligent than the Patháns in general. They are not considered Patháns and claim to be of Arab descent as their name implies. This claim, however, is I think of a slender description among the Sayads in the Pishin with whom we have now to do. Their sympathies are all Afghán, they are subdivided in a suspiciously similar manner, and the story of their descent confirms the suspicions as to their separate origin from the Patháns about them. The story is that HA'RU'N, fifth in descent from Kais, had a daughter who married an Arab Sayad who visited him, and from her are said to be descended all the Pishin Sayads, notably the SHA'DIZAIS and HAIDARZAIS.† The present subdivision of the Pishin Sayads appear to be—

|             |              |              |
|-------------|--------------|--------------|
| GANGALZAIS. | SHA'DIZAIS.  | YA'SINGZAIS. |
| BAGARZAIS.  | BRAHAMZAIS.  | URUMZAIS.    |
| AJABZAIS.   | HAIDARZAIS.‡ |              |

The following table shows the subdivisions of the tribes above discussed as far as known.

| No. | Tribe.                 | No. | Division. | No. | Section.   | Subdivision. | No.         | Subsection. |
|-----|------------------------|-----|-----------|-----|------------|--------------|-------------|-------------|
| I.  | DURA'NI OR<br>ABDA'LI. | 1   | ZÍRAK.    | 1   | POPALZAI.  | 1            | SADOZAI.    |             |
|     |                        |     |           |     |            | 2            | BA'ME'ZAI.  |             |
|     |                        |     |           |     |            | 3            | MARSINGZAI. |             |
|     |                        |     |           |     |            | 4            | KHA'NZAI.   |             |
|     |                        |     |           |     |            | 5            | AIYU'BZAI.  |             |
|     |                        |     |           |     |            | 6            | MADOZAI.    |             |
|     |                        |     |           |     |            | 7            | NOAZAI.     |             |
|     |                        |     |           | 2   | ALAKO'ZAI. | 1            | JALUZAI.    |             |
|     |                        |     |           |     |            | 2            | MELAZAI.    |             |
|     |                        |     |           |     |            | 3            | SARKA'NI.   |             |
|     |                        |     |           |     |            | 4            | SANDARZAI.  |             |
|     |                        |     |           |     |            | 5            | KÁ'REZAI.   |             |
|     |                        |     |           |     |            | 6            | NAUSAZAI.   |             |

this is due to the passage of the Mongols through their country on towards Hindústán or to their Central Asian origin does not appear. Yule's Marco Pole, I, 94, 281 and II, 169, 171.—Hughes's Beluchistán.

\* I saw one village of them in BA'RKHO'M among the Independent Belo'ch Tribes.

† According to one legend, the KARB'ELAS are descended from a waif picked up by this HA'RU'N. See above.

‡ Among the Pishin Sayads faces of a Sr'dr' type are not uncommon, and I saw one woman with purely African features near A'LI'ZAI. This may result, however, from their wandering habits and be no indication of descent.

| No. | Tribe.                 | No. | Division. | No. | Section.   | Subdivision. | No.         | Subsection.  |
|-----|------------------------|-----|-----------|-----|------------|--------------|-------------|--------------|
| I.  | DURA'NI or<br>ABDA'LI. | 1   | ZI'BAK.   | 3   | BA'RAKZAI. |              | 1           | MUHAMMADZAI. |
|     |                        |     |           |     |            |              | 2           | ACHALZAI.    |
|     |                        |     |           |     |            |              | 3           | SULIMA'NZAI. |
|     |                        |     |           |     |            |              | 4           | KHU'NSEZAI.  |
|     |                        |     |           |     |            |              | 5           | BALANZAI.    |
|     |                        |     |           | 4   | ACHAKZAI.  | BAHA'DURZAI. | 1           | GHA'BEZAI.   |
|     |                        |     |           |     |            |              | 2           | KA'KOZAI.    |
|     |                        |     |           |     |            |              | 3           | SHAMUZAI.    |
|     |                        |     |           |     |            |              | 4           | FA'MZAI.     |
|     |                        |     |           |     |            |              | 5           | BA'KABZAI.   |
|     |                        |     |           |     |            |              | 6           | ISHDANIZAI.  |
|     |                        |     |           |     |            |              | 7           | ABDAL.       |
|     |                        |     |           |     |            | GAJANZAI.    | 8           | AHMADZAI.    |
|     |                        |     |           |     |            |              | 9           | ASHEZAI.     |
|     |                        |     |           |     |            |              | 10          | BURHAMZAI.   |
|     |                        |     |           |     |            |              | 11          | SHAMAKZAI.   |
|     |                        |     |           |     |            |              | 12          | MA'LIZAI.    |
|     |                        |     |           |     |            |              | 13          | KA'MILZAI.   |
|     |                        |     |           |     |            |              | 14          | ADAZAI.      |
|     |                        |     |           |     |            |              | 15          | ADRAKZAI.    |
|     |                        |     |           |     |            |              | 16          | HA'ZUZAI.    |
|     |                        |     |           |     |            |              | 17          | MA'LIKZAI.   |
|     |                        |     |           |     |            |              | 18          | LA'LIZAI.    |
|     |                        |     |           |     |            |              | 19          | MA'PIZAI.    |
|     |                        |     |           |     |            |              | 20          | HUSENZAI.    |
|     |                        |     |           |     |            |              | 21          | SULIMA'NZAI. |
|     |                        |     |           |     |            | 22           | AB'DULAZAI. |              |
|     |                        |     |           |     |            | 23           | BA'ZAMZAI.  |              |
|     |                        |     |           |     |            | 24           | ALOZAI.     |              |
|     |                        |     |           |     |            | 25           | TULIZAI.    |              |
|     |                        |     |           |     |            | 26           | MUSHKIZAI.  |              |
|     |                        |     |           |     |            | 27           | BA'DIZAI.   |              |
|     |                        |     |           |     |            | 28           | SHAKARZAI.  |              |
|     |                        |     |           |     |            | 29           | USMA'NZAI.  |              |
|     |                        |     |           |     |            | 30           | HABI'BZAI.  |              |
| I.  | DURA'NI or<br>ABDA'LI. | 2   | PANJPA'O. | 5   | NU'RZAI.   |              | 1           | CHA'LAKZAI.  |
|     |                        |     |           |     |            |              | 2           | BA'DIZAI.    |
|     |                        |     |           | 6   | A'LIZAI.   |              | 1           | HASSANZAI.   |
|     |                        |     |           |     |            |              | 2           | ALAKZAI.     |
|     |                        |     |           |     |            |              | 3           | GWARAZAI.    |
|     |                        |     |           | 7   | ISHA'KZAI. |              | 1           | HAWAZAI.     |
|     |                        |     |           |     |            |              | 2           | TEBOZAI.     |
|     |                        |     |           |     |            |              | 3           | MANDARZAI.   |
|     |                        |     |           |     |            |              | 4           | I'DZAI.      |

| No. Tribe.               | No. Division. | No. Section.  | Subdivision.      | No. Subsection.                          |
|--------------------------|---------------|---------------|-------------------|------------------------------------------|
| I DUBA'NI or<br>ABDA'LI. | 2 PANJPA'O.   | 8 KHU'GIA'NI. | SIRKI<br>WAZI'RI. | { 1 RA'NI KHEL.<br>2 NANI.<br>3 AGA'M.   |
|                          |               |               | MOTIK<br>WAZI'RI. | { 4 PI'RA KHEL.<br>5 AHMAD.<br>6 KHOZEH. |
|                          |               |               | KHAIBU'N.         | { 7 NAJI'BI.<br>8 KHABAI.                |
|                          |               |               | SHEZAH.           | { 9 PANJPAI.<br>10 DOPAI.                |
|                          |               |               |                   | 11 KHIDAR KHEL.                          |

9 MA'KU.  
10 SA'GZAI.

|             |               |                          |  |                   |
|-------------|---------------|--------------------------|--|-------------------|
| II. TARI'N. | 1 TOR TARI'N. | 1 BATAZAI OF<br>BADOZAI. |  |                   |
|             |               | 2 KHA'NIZAI.             |  | 1 LU'B KHA'NIZAI. |
|             |               | 3 A'LI'ZAI.              |  | 2 DAB KHA'NIZAI.  |
|             |               | 4 NU'RZAI.               |  |                   |
|             |               | 5 KULA'ZAI.              |  |                   |
|             |               | 6 MU'SIZAI.              |  |                   |
|             |               | 7 SEGAI.                 |  |                   |
|             |               | 8 MA'LIKYA'B.            |  |                   |
|             |               | 9 MAEZAI.                |  |                   |
|             |               | 10 HAIKALZAI.            |  |                   |
|             |               | 11 MANZAKAL              |  |                   |
|             |               | 12 MA'LIKAI.             |  |                   |
|             |               | 13 HA'RUN.               |  |                   |
|             |               | 14 KAMA'IZAI.            |  |                   |
|             |               | 15 KADAZAI.              |  |                   |
|             |               | 16 KHA'MEZAI.            |  |                   |
|             |               | 17 NAOZAI.               |  |                   |
|             |               | 18 ABDURRAH-<br>MA'NZAI. |  |                   |
|             |               | 19 HAMBRA'NZAI           |  |                   |

|             |                 |               |
|-------------|-----------------|---------------|
| II. TARI'N. | 2 SPI'N TARI'N. | 20 SHA'DIZAI. |
|             |                 | 21 MARPA'NI.  |
|             |                 | 22 LASRA'NI.  |
|             |                 | 28 ADWA'NI.   |

| No. Tribe.           | No. Division.  | No. Section. | Subdivision.                                | No. Subsection.                                                                               |
|----------------------|----------------|--------------|---------------------------------------------|-----------------------------------------------------------------------------------------------|
| III. KA'KAR.         | 1 LOWE' KA'KAR | 1            | KHWAIDA'D-ZAI.                              |                                                                                               |
|                      |                | 2            | MURSIANGZAI.                                |                                                                                               |
|                      |                | 3            | AKTARZAI.                                   |                                                                                               |
|                      |                | 4            | AWAZAI.                                     |                                                                                               |
|                      |                | 5            | MEHTARZAI.                                  |                                                                                               |
|                      |                | 6            | SUGARAI.                                    |                                                                                               |
|                      |                | 7            | JALAGAI.                                    |                                                                                               |
|                      |                | 8            | MU'SA KHEL                                  |                                                                                               |
|                      |                | 9            | KABI'ZAI.                                   |                                                                                               |
|                      |                | 10           | BA'RAKZAI.                                  |                                                                                               |
| 2 KUCHNAI<br>KA'KAR. |                | 11           | SULIMA'N<br>KHEL.                           | 1 TRAGARAI.                                                                                   |
|                      |                | 12           | AMAND<br>KHEL OF SIMAN-<br>THA OF SANATI'A. |                                                                                               |
|                      |                | 13           | MEHTARZAI.                                  |                                                                                               |
|                      |                | 14           | PA'NIZAI.                                   | 1 ADIZAI.                                                                                     |
|                      |                | 15           | BA'ZAI.                                     |                                                                                               |
|                      |                | 16           | SHAMOZAI.                                   |                                                                                               |
|                      |                | 17           | SUGARAI.                                    |                                                                                               |
|                      |                | 18           | MALAGAI.                                    |                                                                                               |
|                      |                | 19           | I'SA' KHEL.                                 |                                                                                               |
|                      |                | 20           | SARA'NGZAI.                                 | 1 MULA'ZAI.<br>2 TA'BA'N.                                                                     |
|                      |                | 21           | ZAKHPE'L.                                   | 1 AMAKAI.<br>2 KANOZAI.<br>3 NAOZAI.                                                          |
|                      |                | 22           | DUMAR.                                      |                                                                                               |
|                      |                | 23           | UTMA'N<br>KHEL.                             |                                                                                               |
|                      |                | 24           | SANDAR<br>KHEL.                             | 1 A'LI'ZAI.<br><br>2 SHABOZAI.<br>3 MUE.<br>4 DARGAI.<br>5 WAHA'R.<br>6 TENIZAI.<br>7 KAYANL. |

IV. LU'NI KHEL. 1 HAMZAZAI.  
2 SARA'GI.

V. ZARKHA'N.

*Tribes of doubtful Afghān descent.*

|              |   |             |
|--------------|---|-------------|
| I. SAYAD.    | 1 | GANGALZAI.  |
|              | 2 | BAGARZAI.   |
|              | 3 | AJABZAI.    |
|              | 4 | SHA'DIZAI.  |
|              | 5 | BRAHAMZAI.  |
|              | 6 | HĀIDARZAI.  |
|              | 7 | YA'SINGZAI. |
| II. KABEELA. | 8 | URUMZAI.    |

(To be continued).

*On the Śūryaprajñapti.*—By DR. G. THIBAUT, *Principal, Benares College.*

## PART I.

Until recent times our knowledge of the cosmological and astronomical system of the Jainas was very limited and founded not on an independent investigation of the original Jaina literature, but only on the occasional references made to Jaina doctrines by the orthodox Hindu writers on astronomy. For a long time the short account of the subject given by Colebrooke in his "Observations on the sect of the Jainas" (*Asiatic Researches*, 1807; *Essays*, Vol. II), remained the only one, and although accurate as far as it goes, it is very insufficient since it chiefly refers to the one doctrine of the Jainas only, which has at all times struck outsiders as peculiarly strange and absurd, *viz.*, the assertion that there exist two suns, two moons and a double set of constellations. This is indeed the doctrine by which the system of the Jainas could most easily be distinguished from similar old Indian systems, and it is consequently referred to and controverted with preference in the *Siddhāntas*. The best known passage from the latter is the one quoted by Colebrooke from Bhāskara's *Siddhānta-Siromani*. "The naked sectaries and the rest affirm that two suns, two moons and two sets of stars appear alternately; against them I allege this reasoning. How absurd is the notion which you have formed of duplicate suns, moons and stars, when you see the revolution of the polar fish."

This passage of Bhāskara's is manifestly founded on a passage found in Brahmagupta's *Sphuṭa-Siddhānta* where we read in the so-called *Dūshapādhyāya*:

मानि चतुः पञ्चाशत् द्वौ द्वावर्कोदयो जिनोक्तं यत् ।  
भुवनस्य स्यावर्तो भवति चतुःशतं तत्सदृशम् ॥

“There are fifty-four nakshatras, two risings of the sun; this which has been taught by Jina is untrue, since the revolution of the polar fish takes place within one day.”

And a passage to the same effect occurs in the 13th adhyáya of Varáha Mihira's Pañchasiddhantiká.

In 1868 Professor A. Weber, to whom we are indebted for our first acquaintance with so many works of Indian literature, published in the tenth volume of the “Indische Studien” a paper on the Súryaprajñapti, being apparently the most important astronomical book whose authority the Jainas acknowledge, and it then appeared that the doctrine of the existence of two suns, moons, etc. constitutes only one feature of a comprehensive system which on the whole is much less fantastical than might have been expected and which, fantastical or not, shows intimate relations to the astronomical and cosmological views which appear to have prevailed all over India before Greek science began to influence the East. Especially it appeared—as pointed out by Professor Weber—that the doctrine propounded in the Súryaprajñapti shows in many points an unmistakable resemblance with that contained in the Jyotisha-Vedānga the presumably oldest specimen of Indian astronomical literature, and it thus became manifest that the astronomical books of the Jainas do not only furnish information about the opinions held by a limited religious sect, but may, if rightly interrogated, yield valuable material for the general history of Indian ideas. The writer of the present paper has therefore thought it worth while to submit the Súryaprajñapti to a renewed detailed investigation, whereby we should be enabled rightly to esteem its position in the astronomical literature of India, clearly to conceive the peculiar features distinguishing the astronomical system of the Jainas from other systems, and on the other hand to point out what the Jaina system has in common with other systems, and in what way therefore it may be employed for the elucidation of the latter. Professor Weber's paper gives in the main only a short summary of the contents of each chapter of the Súryaprajñapti, following the order of the chapters as found in the work itself and omitting none of them. This was of course the right plan to adopt in a paper giving the first account of a hitherto unknown book. In the present paper it has on the other hand been preferred to give a connected account of the chief doctrines only which are found in the Súryaprajñapti, to combine hints found in the various parts of the work wherever this appeared necessary for the sake of greater clearness, and again altogether to omit relatively unimportant matter. It must be stated at the outset that this paper—like that of Professor Weber—is based more on Malayagiri's commentary on the Súryaprajñapti than on the text of the latter work itself; which apparently anomalous proceeding finds its explanation in the fact of the Manuscripts

of the Śūryaprajñāpti, commonly met with, containing the commentary only *in extenso*, while as a rule only the first words of the passages commented on are given. As it, however, appears that the commentary faithfully follows the text, and as on the other hand the latter, devoid of a commentary, would be hardly intelligible, the absence of a complete text of the Śūryaprajñāpti is less inconvenient than might at first be assumed. At any rate we may obtain at present a sufficiently full and accurate knowledge of the contents of the book; and in works of the class to which it belongs the interest attaching to the form is a comparatively small one. As already stated, the present paper is by no means intended as an exhaustive review of the contents of the Śūryaprajñāpti; it is rather meant as an introduction to a complete edition of the work itself which, on account of the various old materials it contains, well deserves to be published *in extenso*. And an introduction of this kind could not well be missed, even if we possessed a complete edition or translation of the book, as the reader of the text of the work or of a literal translation of the text would find it by no means an easy task unaided to reconstrue the leading features of the system.

The Śūryaprajñāpti is written in Jaina-prākṛit, and divided into twenty books called prābhṛitas, some of these again into chapters, called prābhṛita-prābhṛitas. The arrangement of the matter treated of is by no means systematical, and the text, still more the commentary are full of tedious reiterations. Malayagiri, the commentator, has done his work most conscientiously; too conscientiously, the reader afflicted by his extraordinary diffuseness often feels tempted to say. Especially he delights in illustrating the numerical rules given in the text by at least half a dozen examples, where one would have sufficed, dwelling with evident complacency on each step even of the simplest calculation. But his comments are very perspicuous and certainly deserve to be extracted, although not to be reproduced *in extenso*.

Proceeding now to our proposed task, let us dispose at the outset of the distinctive doctrine of the Jainas according to which there are two different suns, two moons and two sets of constellations. When inquiring into the origin of this certainly peculiar notion, we are led to a very simple reason, an impartial consideration of which makes the Jaina system appear much less fantastical and arbitrary than we at first are inclined to think. This reason has already been pointed out by Colebrooke, Asiatic Researches, Vol. IX, p. 321, where he says "They (the Jainas) conceive the setting and rising of stars and planets to be caused by the Mountain Sumeru and suppose three times the period of a planet's appearance to be requisite for it to pass round Sumeru and return to the place where it emerges. Accordingly they allot two suns, as many moons, and an equal number of each planet, star and constellation to Jambudvīpa; and imagine that these appear on alter-

nate days south and north of Meru." These words scarcely require anything added to be to them in the way of comment. The Jainas hold (as will be seen in detail further on) the old Indian idea of sun, moon and stars revolving round Mount Meru. To anybody holding this opinion, the question must have suggested itself "In what time is one such complete revolution performed?" The prevailing opinion, represented for instance by the Purānas, was that the whole revolution is performed in twenty-four hours, so that the sun describes during the time when it is day in Bharatavarsha the southern half of his circle, and during the time when it is night to the south of Mount Meru, and day in the countries north of it, the northern half. The Jainas, however, took a different view of the matter. To them it seems to have appeared more appropriate that as there are four directions—south, west, north and east—the sun's circle should be divided into four quarters corresponding to the four directions, and that he should bring day in succession to the countries to the south, west, north and east of Meru. But then, as it must be supposed that his passing through each of the four quarters occupies the same time, how can it come about that he again appears to rise to the Bharatavarsha after the lapse of a period only sufficient to advance his place by one quarter of the circle? Out of this difficulty the Jainas extricated themselves by simply assuming that the sun rising on a certain morning is not the same sun which had set on the preceding evening, but a second sun similar in every way to the first one. The whole circle is thus described by two suns separated from each other by half the circumference, each of which appears in the Bharatavarsha on alternate days. The same reasoning led to the assumption of two moons and two sets of stars.

Great as appears to be the difference produced by this hypothesis between the system of the Jainas and the commonly received opinions, it practically is of very small importance and may—as will be done in the following—as a rule be left altogether out of account whenever we have to consider the motions of sun and moon. When for instance the sun having started from *Aśvini* has passed through the twenty-eight *nakshatras*, he enters, according to the generally received opinion, again into the same *nakshatra* *Aśvini*, according to the Jaina opinion into a second *nakshatra* called *Aśvini* too; but as this second *nakshatra* has the same name, the same extent, and the same relative position as its namesake, as like the latter it is preceded by *Revati* and followed by *Bharani*, and as at the same time when the sun has entered into the second *Aśvini*, another sun the exact and indistinguishable counterpart of the former one has entered into the former *Aśvini*, it is clear that we may, when speaking of the motion of the heavenly bodies, save ourselves the trouble of continually referring to two suns, two moons and two sets of *nakshatras* and, remembering



that there are two of each kind, express ourselves as if there were only one. To proceed.

The astronomic-chronological period on which the system of the Sūryaprajñapti is based, is the well-known quinquennial yuga or cycle with which we have long been acquainted from the Jyotisha Vedāṅga. The same cycle is described in the Garga Samhitá as we see from the extant fragments of the latter work, and we learn from Varáha Mihira's Pañchasiddhāntiká that it likewise formed the fundamental doctrine of a Paitámaha Siddhánta which, according to Varáha Mihira's judgment, was one of the more important Siddhántas known at his time. It is alluded to and rejected in a few words by Brahmagupta in the dūshapádhya of the Sphuṭa Brahma-siddhánta. References to this cycle are met with in the early history of Buddhism. Whether the so-called Vedic literature is acquainted with a cycle of this nature is doubtful.\* It will not be necessary to dwell in this place at length on the constitution of the yuga; it will suffice to state that it is based on the assumption of five sidereal revolutions of the sun being exactly equal in duration to sixty-seven periodical revolutions of the moon and to sixty-two synodical months, while one complete revolution of the sun is supposed to be performed in three hundred and sixty-six days. That a cycle of this nature based as it is on an utterly wrong assumption could maintain itself for a considerable time as it manifestly has done is a matter for legitimate wonder, and does not find a parallel in the history of chronological systems among any other civilized nation. At the end of one yuga already the quantity of the error induced by the mistaken estimation of the length of the solar year amounts to nearly  $5 \times \frac{1}{4} = 3\frac{1}{4}$  days, the accumulation of which quantity after the lapse of a few yugas could not escape the attention, we should think, of even the most careless observers. The matter would indeed lie altogether differently if a conjecture (or as it stands we might almost say, an assertion) of Colebrooke referring to this point had been verified. He—after having given an account of the manner in which the Jyotisha-Vedāṅga manages to maintain harmony between civil and lunar time—continues “and thus the cycle of five years consists of 1860 lunar days or 1830 nycthemera, subject to a further correction, for the excess of nearly four days above the true sidereal year: but the exact quantity of this correction and the method of making it, according to this calendar, have not yet been sufficiently investigated to be here stated.” The fact is that of this correction which Colebrooke considered so indispensable, that he speaks of it as being actually found in the Vedāṅga, no

\* The question referred to in the text cannot be discussed here. The writer hopes shortly to find an occasion fully to treat it elsewhere.

traces are to be found either in the Vedānga itself or—and this is of great importance as the Vedānga is still partially unexplained—in the Sūryaprajñapti which illustrates the constitution of the quinquennial yuga in the most diffuse manner, but has nothing to say about a correction of the kind mentioned.—The subdivisions of the yuga are in the Sūryaprajñapti described with great fulness; what is really essential admits, however, of being stated in a few words. Each solar year is divided into two ayanas of one hundred and eighty-three days each. Each ayana in its turn comprises six solar months, each of which lasts  $30\frac{1}{2}$  days. Two of these solar months constitute a solar season; the reckoning of the seasons starts, however, not from the beginning of the yuga, but the latter is made to mark the middle of a season, so that the rainy season which counts as the first begins a month before the beginning of the yuga. Again the yuga comprises five years of 360 days each, each year in its turn being divided into twelve months of 30 days each; in the Sūryaprajñapti this kind of year—commonly known as the *sāvana year*—is called the *karma-year* or *ritu-year* which latter name would more properly be given to the solar year. The six days by which this year is shorter than the solar year are called *atirātras*. Again the yuga comprises sixty-two synodical months, the first of whom begins with the moon being full in the first point of Abhijit. Each of these months is divided into a light and a dark half; each half comprises fifteen tithis or lunar days of equal duration. Sixty-two of these months being equal in duration to sixty-one karma-months of 30 days each, it follows that sixty-two tithis are equal to sixty-one natural days; in order therefore to maintain harmony between the numbers of the natural days and those of the tithis, a break in the counting of the tithis is made whenever two tithis terminate during one natural day, *i. e.*, according to the Sūryaprajñapti on the occurrence of each sixty-second tithi. The details of this process are not stated in the Sūryaprajñapti, but there can be no doubt that *mutatis mutandis* it was managed as it has been managed in India ever since. To give an example, the sixtieth natural day, counting from the beginning of the yuga, during which the sixtieth tithi terminated was counted as *pañchadaśi* (fifteenth tithi), the next following day as *pratipad* (first day of the new lunar half month) and then the day after that not as *dvitīyā*, second lunar day, but as *ṛitīyā* third lunar day, the second lunar day having already terminated together with the preceding sixty-first natural day. These sixty-two lunar months are divided among five lunar years, the first, second and fourth of which comprise twelve lunations each, while the third and fifth count thirteen each. The technical name of years of the latter kind is *abhivardhita-samvatsara*, the increased year. The method according to which the two thirteenth months are intercalated in the yuga is

not described in detail; it is however clear enough how it proceeded. The thirty-first lunation and again the sixty-second one were not counted, but formed together with the month immediately following a kind of double month taking its name from the second constituting member. Thus there is nominally no thirteenth month, and a proper name for the latter is therefore not required.

Again the yuga consists of sixty-seven periodical lunar months, the moon during it returning sixty-seven times to the place from which she had started at the beginning. No attempt is made in the *Sūryaprajñapti* to group these months into years nor are they subdivided into days of equal duration; they are simply said to comprise  $27 \frac{2}{3}$  days each. They are, however, subdivided into two ayanas each, analogously to the division of the solar year into ayanas. This division is indeed legitimate enough as it is based on the alternate progress of the moon towards the north and south, about which details will be given later on. Less comprehensible is on the other hand the division of each periodical month into six lunar seasons, whose names answer to those of the solar seasons beginning with the rainy season; a division of this kind is of course utterly gratuitous and purposeless, and to us interesting only as a specimen of the Indian's excessive tendency to systematize.

If we now proceed to an examination of the account given in the *Sūryaprajñapti* of the revolutions of sun and moon, we find at the outset that it differs from the statements made by Garga and in the *Vedānga* in one important point. According to the latter authorities (see *Jyotisha-Vedānga*, v. 6; this Journal for 1877, p. 415; Weber, *Nakshatras* II, pp. 28, 33), the yuga begins with the winter solstice, at the moment when it is new-moon, sun and moon being in conjunction in the beginning of the nakshatra *Dhanishthá*; according to the *Sūryaprajñapti* the yuga begins with the summer solstice, at the moment when the moon is full in the beginning of *Abhijit* and the sun consequently stands in *Pushya*. The coincidence of the winter solstice with new moon marking, according to the *Vedānga*, the beginning of the yuga may of course actually have taken place at the time when the doctrine of the quinquennial yuga was first established and will have recurred later on from time to time; but it is evident that it could not regularly recur every fifth year. To this fact, however, as well as to the change which in consequence of the precession of the equinoxes gradually took place in the position of the sun at the time of the winter solstice, the eyes of the Hindus seem to have remained shut during a considerable period. Now it is curious to see that in this one point at least the author of the *Sūryaprajñapti* who, on the whole, faithfully adheres to the old system and does not hesitate to take over the quinquennial yuga itself with all its glaring imperfections, considered himself entitled or

obliged to deviate from the received tradition. For once the testimony of the eyes was placed above old authorities. In the first place, the winter solstice had so far receded from the beginning of Dhanishthá that the change could not be ignored ; in the second place, it must have so happened that at the time of the author of the Sūryaprajñapti no new moon took place together with the winter solstice, while—as we may presume—some full moon happened to coincide or nearly to coincide with some summer solstice. Accordingly the beginning of the yuga was changed. Faute de mieux the summer solstice coinciding with full moon was taken as the new starting-point, and the sun's place at the time was removed from the middle of Áśleshá which it had occupied in the old system to a point in Pushya. The moon's place at the time of the summer solstice, being separated from the sun's place by half the circumference, is then at the beginning of Abhijit ; the latter point marks at the same time the sun's place at the time of the winter solstice.

The account given in the Sūryaprajñapti of the position of the sun at the two solstices enables us to enter into a consideration of the approximate time at which either the work itself or some older work on which it may have been based was composed. The expression "approximate" is used on purpose as the general difficulties besetting an estimation of this kind referring to Indian astronomical works are well known, and as in our case special difficulties arise in addition to them. As will be seen later on, the Sūryaprajñapti throughout employs twenty-eight nakshatras of unequal extent, while the Vedānga as well as the bulk of the later astronomical literature make use of twenty-seven nakshatras of equal extent. The relation of these two systems to each other necessitates a short excursus, for the starting-point of which we take a passage in Bháskara's Siddhánta Siromani (Grahaganita, Spash-ṭádhikára, 71-74, p. 93 of Bápu Deva's edition) and a parallel passage from Brahmagupta's Sphuṭa-siddhánta. The former of the two, translated, runs as follows :

" This method of finding the Nakshatras which has thus been taught in a rough manner by the astronomers for the purposes of common life, I shall now teach in an accurate form as it has been proclaimed by the ṛishis for the purpose of processions, marriages, etc. The experts have declared six (nakshatras) to have one portion and a half, *viz.*, Viśákhá, Punarvasu and the (four) nakshatras called dhruva ; six to have half a portion, *viz.*, the constellations presided over by the Sarpas, Rudra, Váyu, Yama, Indra, Varuṇa ; the remaining fifteen to have one portion each. The portion of one nakshatra is called the mean motion of the moon (during one ahorátra). The minutes of the circle lessened by the portions of all (the 27 mentioned) nakshatras are the portion of Abhijit, lying beyond the nakshatra of the Viśve Devas, etc." These statements are repeated in Bháskara's own

commentary, the Vāsana, where the common names of the nakshatras (Viśākhā, Punarvasu, Rohini, the three Uttaras ;—Āśleshā, Ārdrā, Svātī, Bharanī, Jyeshthā, Śatabhishaj) are given and where Pulīsa, Vasishṭha, Garga and others are said to be the Ṛishis alluded to in the text. The rough mode of computation referred to in the beginning of the above quotation is the one contained in v. 67 of the same chapter and agrees with the rule given in the Sūrya Siddhānta, II, 64. According to it, when we wish to find the place of sun or moon or one of the planets in the circle of the nakshatras, we have to divide the longitude of the heavenly body expressed in minutes by 800 ; the quotient then shows the number of nakshatras through which the planet has already passed, and the remainder the traversed part of the nakshatra in which it is at the time. This rule therefore bases on the assumption of twenty-seven nakshatras each of which extends over one twenty-seventh part of the circle. Now, according to Bhāskara, the Ṛishis taught that whenever greater accuracy is required, the nakshatras have to be considered as being of unequal extent. In the first place only fifteen of them are to be regarded as having the average extent, while six exceed that amount by one half and six others remain below it by one half ; and in the second place the twenty-seven nakshatras are no longer to occupy the whole circle, but only that part of it which corresponds to twenty-seven times the mean daily motion of the moon, while the remaining part of the circle is assigned to a twenty-eighth nakshatra Abhijit. Bhāskara's statements are manifestly founded on a passage met with in the 14th chapter of the Sphuṭa Brahmasiddhānta which gives the same details regarding the different extent of the nakshatras, and is introduced by the following verse—

पौलिशरोमकवासिष्ठघोरपैतानक्षेषु यस्त्रोक्तम् ।  
तद्वच्चानयनं नार्थभटोक्तं तदुक्तिरतः ॥

“The calculation of the nakshatras, which has been taught in the Paulīsa, Romaka, Vāsishṭha, Saura, Paitāmaha Siddhāntas, is not mentioned by Āryabhṭa ; I therefore proceed to explain it.”

And later on—

अथर्थादिष्वेवापि संदितासुभिहितानि गर्गाद्यैः ।  
यस्माद् बहूनि तस्यान्वार्थभटोक्तं तदानयनम् ॥

The explicit statement about number and extent of the nakshatras in the older period of Indian astronomy, which is contained in the two passages quoted from Brahmagupta and Bhāskara, is of considerable interest. If the account given by these two writers is correct and there is no reason to doubt of that, it appears in the first place that the mere circumstance of only twenty-seven nakshatras being mentioned in some detached fragment of an astronomical work which we do not possess in its entirety,

would not justify the conclusion of the author of the work having been acquainted with twenty-seven nakshatras only. Nay, even the author of a treatise like the Vedānga who throughout speaks of 27 nakshatras only may have done this simply because he meant his work to be an elementary one, unencumbered by the assumption of 28 nakshatras of unequal extent. In the second place the distinct statement that the old writers on astronomy made use of Abhijit solely when greater accuracy was aimed at, and that they then made its extent to correspond to the excess of a sidereal month above twenty-seven days, certainly seems to point to the conclusion that the introduction of Abhijit into the circle of the nakshatras was an after-thought, consequent on the improved knowledge of the length of the moon's periodical revolution. With regard to the books in which, according to Bhāskara and Brahmagupta, the division of the sphere into 28 nakshatras of unequal extent was taught in addition to the simpler division into 27 equal nakshatras, we have to remark that the Sūrya-siddhānta known to us contains no such statement; the Saura-siddhānta of Brahmagupta may have been a different work. We are unable to control the statement with regard to the Romaka, Paulīśa, Vāsishṭha-Siddhāntas. Of Garga, however, we know from quotations several passages bearing on the point in question: in the first place, the passage quoted by Bhaṭṭotpala (in his commentary on Varāha Mihira's Bṛihatsaṃhitā, IV, 7; see Weber, *Nakshatras*, I, p. 309), which corroborates Bhāskara's statement regarding the different extent of the Nakshatras, is, however, silent about Abhijit. As the passage stands, it would lead us to infer that Garga divided the whole circle into twenty-seven parts, the extent of fifteen of which is equal to one, of six to one half and of six to one and a half. The quotation may, however, be incomplete, and at any rate we have Brahmagupta's and Bhāskara's word for Abhijit having been acknowledged by Garga too. However this may be, that Garga, as a rule, introduced into his calculations neither Abhijit nor the inequality of the extent of the twenty-seven nakshatras, appears from the places which he assigns to the sun at the two solstices, *viz.*, at the beginning of Dhanishṭhā and the middle of Āśleshā; for if we calculate the place of the summer solstice by starting from the beginning of Dhanishṭhā and making use of the unequal extent of the nakshatras, we obtain as place of the summer solstice not the middle of Āśleshā but rather the end of it or the beginning of Maghā.

To return. The special difficulty by which we are met when attempting to compare the places assigned to the solstices in the Sūryaprajñapti with the places which they occupy according to Garga and the Vedānga on one hand and the Siddhāntas on the other hand, lies in the circumstance of our not knowing exactly how the two divisions of the sphere—the one into 27 nakshatras of equal extent, the other into 28 of unequal extent—were made

to correspond with each other. If we suppose—and this seems the most likely supposition—that each of the 27 nakshatras was curtailed by the twenty-seventh part of the small portion assigned to Abhijit and that the reckoning started from the beginning of Abhijit, (which according to the system of the Súrjaprajñapti is the first of the series, as at the beginning of the yuga it is in conjunction with the moon), we may hazard an hypothesis with regard to the time lying between the Vedánga and the Súrjaprajñapti, or rather between the observations of the solstices recorded in the two works. According to the Vedánga the winter solstice takes place in the beginning of Dhanishṭhá, according to the Súrjaprajñapti in the beginning of Abhijit (which is the place of the full moon on the day of the summer solstice at the beginning of the yuga, and consequently the place of the sun on the day of the winter solstice); the two places are therefore separated by the whole of Śravaṇa and Abhijit. Having, according to the hypothesis stated above, reduced the extent of Śravaṇa ( $= 13^{\circ}33$ ) by the 27th part of the extent of Abhijit, which extent is equal to about  $4^{\circ}12$ , we obtain for Śravaṇa  $13^{\circ}18$ ; to this we add Abhijit  $= 4^{\circ}12$ ; the sum *viz.*,  $17^{\circ}3$  indicates the extent of the displacement of the solstice during the intervening period. Allowing seventy-two years for  $1^{\circ}$  of precession, the length of this period would be about 1246 years. If we therefore knew the absolute date of the Vedánga we might state the approximate absolute date of the observation recorded in the Súrjaprajñapti, on the supposition always of the manner in which the two divisions of the sphere have been adjusted to each other being the right one. But, as Professor Whitney has shown, it is scarcely possible to form any satisfactory conclusion with regard to the date of the Vedánga, and we therefore abstain from giving a positive opinion about the date of the Súrjaprajñapti.

We now proceed to a detailed consideration of the hypothesis by which the author of the Súrjaprajñapti tries to account for the appearances presented by the various motions of the heavenly bodies, beginning with the sun.

The three different motions of the sun which he endeavours to explain are firstly, the daily motion in consequence of which the sun seems to approach us from the East, passes through our field of vision and finally disappears in the West; secondly, the annual motion in consequence of which the sun seems to pass in the course of a year through the circle of the nakshatras, proceeding from the West towards the East; and thirdly the motion in declension according to which the sun ascends towards the north during one half of the year and descends towards the south during the other half. As in all systems which consider the daily motion of the sun to be real (not an appearance produced by the revolution of the earth

round its axis), the annual motion of the sun through the circle of the nakshatras is said to be apparent only, and produced by the circumstance of the motion of the sun being somewhat slower than that of the nakshatras, so that he daily lags behind by a certain quantity which accumulated during a whole year amounts to an entire revolution. How the Sūryaprajñapti supposes the first and third motions to take place will appear from the following.

It must be remembered at the outset that the general conception of the configuration of the world which we find in the Sūryaprajñapti is the same as that known from the Purāṇas. The earth is considered to be an immense circular flat consisting of a number of concentric rings, called dvīpas, separated from each other by ring-shaped oceans. In the centre of the earth stands Mount Meru; around it runs the first dvīpa—Jambudvīpa, the only one which will concern us in the following. It is surrounded by a circular ocean, the water of which is salt (the lavaṇa-samudra). The southern segment of the Jambudvīpa is occupied by the Bhāratavarsha, the northern segment by the Airāvata-varsha; east and west of Mount Meru are the two portions of the Videha-varsha. Sun, moon and stars revolve round Mount Meru, in circles of different height above the Jambudvīpa, the same heavenly body, however, always keeping the same height. The detailed features of these motions are now according to the Sūryaprajñapti as follows.

The circumstance of the sun seeming during one half of the year to approach daily more and more the north, while during the other half he seems to descend towards the south is explained in the following manner. On the longest day of the year which at the beginning of the cycle coincides with the first day of the lunar month S'rāvāṇa, the sun describes round the mountain Meru a circle, the diameter of which is 99,640 yojanas. The distance of the sun from the centre of Meru amounts therefore to 49,820 yojanas. On the next day the sun describes a circle concentric with the first, and having a diameter greater by  $5 \frac{2}{3}$  yojanas, so that the distance of the sun, from Mount Meru now amounts to  $49,820 + 2 \frac{2}{3}$  yojanas. In the same manner the diameter of the circle described by the sun increases by  $5 \frac{2}{3}$  on the third day, fourth day, etc., up to the day of the winter solstice, which according to the system is the 183rd day after the summer solstice. On this day the sun describes round Mount Meru a circle, the diameter of which is equal to 100,660 yojanas, so that his distance from Mount Meru amounts to 50,330 yojanas. Beginning from this day the solar circles contract again, by the same quantity daily by which they had expanded during the southern progress of the sun. During the 182 days intervening between the day of the winter solstice and the day of the following summer solstice the sun describes again the same 182 circles in



which he had descended towards the south, only in reverse order, until, on the day of the second summer solstice, he has again reached the innermost circle, from which he had started a year ago. During the second year the same expanding and contracting of the solar circles repeats itself and so on. The fact of the sun seeming to ascend towards the north during one half of the year, while he seems to descend towards the south during the other half is therefore explained by the supposition that he approaches us during the former half, while he recedes from us during the latter half. The system does not assume that he actually ascends or descends; for all the circles described by him are at an equal height above the Jambudvīpa; he only appears to us to stand lower at the winter solstice than he does at the summer solstice, because at the former period he has receded from us to the amount of five hundred and fifty yojanas. The exact localities too above which the sun describes his daily circles are defined. The innermost circle, i. e., the circle nearest to Mount Meru, which the sun describes on the longest day, would, when projected upon the earth, be distant 180 yojanas from the outer margin of the Jambudvīpa. The second circle approaches nearer to that margin, the third still nearer, and so on, until the circles of the sun are no longer above the Jambudvīpa itself but above the salt ocean, the lavaṇoda, which surrounds the Jambudvīpa. Finally on the shortest day of the year the sun describes a circle which, in projection, is distant 330 yojanas from the edge of the Jambudvīpa. After that he again approaches the Jambudvīpa, and on the next summer solstice he has again entered into it to the amount of 180 yojanas. The technical term by which this recurring progress of the sun towards the Jambudvīpa and the salt ocean is denoted in the Sūryaprajñapti, is उगच्छर or उवगाहति (-ते); the sun is said to merge himself, or to enter to a certain distance into the Jambudvīpa or into the salt ocean accordingly as his circles are vertically above the land or the surrounding sea.

In connexion with the sun's motion in circles of different diameter, the Sūryaprajñapti treats of the increase and decrease of the length of the day. As in the Jyotisha-Vedānga, the length of the day of the summer solstice is estimated at eighteen muhūrtas, that of the shortest day at twelve muhūrtas. The days between the two solstices are erroneously supposed to decrease or increase by a uniform quantity, which is easily found to be equal to  $\frac{1}{18} = \frac{1}{3}$  of a muhūrta.

A number of opinions of other teachers agreeing with the theory stated above in its general features, but differing in the figures, are likewise given by the Sūryaprajñapti.

Different opinions regarding the extent of the solar circles are given in I, 8 and, which comes to the same, different opinions about the distance of the two suns from each other in I, 4. According to this chapter there

were six different opinions about the distance of the two suns from each other on the longest day when the sun—or the two suns—describe the innermost and smallest circle. According to some teachers, the distance of the two from each other, or in other words the diameter of the circle they describe amounts to 1,133 yojanas, according to others to 1,134 yojanas; according to others again to 1,135 yojanas. Most probably we have to combine with these statements the statements given in the next chapter (I, 5) regarding the different opinions prevailing on the extent to which the sun “immersed” himself into the Jambudvīpa and into the salt ocean. There we read that, according to one opinion the sun moves on the longest day in a circle which projected on the Jambudvīpa is distant 1,133 yojanas from the edge of the latter, while on the shortest day he describes a circle above the salt ocean at the distance of 1,133 yojanas from the Jambudvīpa. According to the opinions of two other sets of teachers, the number of yojanas in both cases is 1,134 and 1,135. If we combine these measures with the measures of the diameter of the innermost solar circle given above (and the sameness of the figures seems to entitle us to do so, although this is by no means explicitly stated), we get for the diameter of the whole Jambudvīpa  $1,133 (= \text{diameter of the innermost circle}) + 2 \times 1,133 (= \text{distance of the innermost circle from the edge of the Jambudvīpa on both sides})$ , therefore altogether 3,399 yojanas; or, starting from the numbers 1,134 and 1,135, 3,402 or 3,405 yojanas. These are very moderate dimensions compared with the 100,000 yojanas, which length the author of the Sūryaprajñapti himself attributes to the diameter of the Jambudvīpa, and we shall not be mistaken in ascribing to opinions of this nature a considerably greater antiquity than to those represented by the Sūryaprajñapti. Besides, there is another circumstance in favour of such a view. The Sūryaprajñapti throughout makes use of the relation  $\sqrt{10} : 1$  for calculating the circumference of a circle. Thus for instance the diameter of the Jambudvīpa being 100,000 (yojanas), its circumference is said to amount to 316,227 yojanas 3 gavy. 128 dhan. 13½ añg. But those teachers who stated the diameter of the innermost solar circle to amount to 1,133 or 1,134 or 1,135 yojanas stated at the same time that its circumference amounts to 3,399 or 3,402 or 3,405 yojanas, i. e., they made use of the relation 3 : 1 for calculating the circumference of a circle from its diameter. The adoption of this very rough approximate value seems to point back to a comparatively ancient time.\*

\* It seems that all Jaina books take  $1 : \sqrt{10}$  as expressing the relation of the diameter to the circumference. See for instance Bhagavatī Sūtra II, 1. 45 (Weber, p. 264), where, however, some confusion seems to have crept into the figures. The old and simple relation 1 : 3 is found for instance in the Bhūmiparvan contained in the Bhīshmaparvan of the Mahābhārata. There the circumferences of the planets are

Three more opinions concerning the distance of the two suns from each other on the longest day are quoted. According to the first, one whole dvīpa with the addition of the surrounding ocean intervenes between the two; according to the second two dvīpas and two oceans; according to the third three dvīpas and three oceans. The distance in yojanas is not given. Two more opinions concerning the extent to which the sun enters into the Jambudvīpa are stated; according to some the sun enters on the longest day into half the Jambudvīpa and on the shortest day into half the salt ocean; the distances in yojanas are not mentioned. And according to others the sun enters neither into the Jambudvīpa nor into the salt ocean, but moves in the interval (apāntarāla) of the two; how we have to imagine this interval does not appear.

The eighth chapter of the first book contains a long exposition of the dimensions of the circles described by the sun. Four different dimensions are stated. Instead of simply giving the length of the diameter, the length and breadth (áyāma and vishkambha) are given; these two are of course equal in a circle. Then the circumference of the circle is given, according to the ratio  $\sqrt{10} : 1$ , and finally the "váhalya," the thickness of the circle, i. e., the diameter of the space filled by the mass of the sun or more simply the diameter of the sun himself. This amounts according to the Sūryaprajñapti to  $\frac{4}{3}$  of a yojana. The diameter and the circumference of the circles are of course continually changing, the circle described on the longest day having the smallest dimensions and that described on the shortest day having the greatest. The dimensions of the small circle and the amount of the daily increase have been mentioned above; it is therefore not necessary to follow the Commentator into the very tedious calculation of the dimension of each daily circle. The opinions of three other teachers on the dimensions of the circles, according to which the diameter amounts to 1,133 yojanas etc., have already been mentioned; the thickness of the circle, i. e., the diameter of the sun is held by them to amount to one yojana.

We turn now to the statements regarding the velocity with which the sun moves in his different circles, and among these at first to those made by the Sūryaprajñapti itself. The calculation is a very simple one. Each daily circle being described by two suns, each of which travels through half of it in thirty muhūrtas, the whole circle is described by one sun in sixty muhūrtas, and consequently we have, in order to find the velocity of the sun, to divide the periphery of the daily circle by sixty; the quotient is the number of yojanas travelled through by the sun in one muhūrta. Thus the sun, when travelling in the smallest innermost circle, the circumference

stated in numbers which are the threefold of the numbers expressing the diameters :

अत्रमात्रं त्रयस्त्रिंशत् राजनेकादश युतः । विष्णुर्देवः क्रुष्येष्ट चयस्त्रिंशत् सप्तसप्तम् etc.

of which is 315,089 yojanas long, passes in one muhūrta through 5,251  $\frac{3}{8}$  yojanas. On the following day both suns travel in the second circle which is somewhat larger than the first one, and consequently the suns having to describe a larger space in the same time, *i. e.*, during the duration of a nycthemeron travel somewhat faster, pass in one muhūrta through 5,251  $\frac{3}{7}$  yojanas. Thus day after day the speed of the two suns is increasing in accordance with the continually increasing extent of the diurnal circles, until on the day of the winter solstice both suns travelling in the outmost circle pass through 5,805  $\frac{1}{10}$  yojanas in one muhūrta. Beginning from this day their speed diminishes as they are again approaching the innermost circle, until on the day of the next summer solstice their rate of speed is again at its minimum. In connexion with this discussion of the swiftness of the sun, the Sūryaprajñapti treats of the question of the distance from which the light of the sun becomes visible to the inhabitants of the Bharata-varsha. By this distance we have, however, to understand not the distance of the sun from the Bharata-varsha in a straight line, but rather that part of the sun's daily circle which lies between the point of the sun's rising and the meridian. It is well known, says the Commentator, that the sun becomes visible to the eye of man at a distance equal to half of the extent (kshetra) over which he travels during the whole day, *i. e.*, at the time of his rising, his distance from us (=from our meridian, although this is not expressly stated in the Sūryaprajñapti) is half of the arc which he describes during the whole day. The length of this arc has to be measured simply by the time which the sun takes to travel through it. Thus, for instance, on the longest day the sun is visible to the inhabitants of the Bharata-varsha during eighteen muhūrtas out of thirty; from the moment of his rising he will therefore take nine muhūrtas to come up to the point straight in front of us (to the meridian). Now we have seen before that on the longest day the sun travels over 5,251  $\frac{3}{8}$  yojanas in one muhūrta; consequently he travels in nine muhūrtas over 47,263  $\frac{3}{8}$  yojanas. This therefore is the distance—expressed as an arc of the diurnal circle—at which he becomes visible to the eye of man. On the shortest day on the other hand the sun is visible for twelve muhūrtas only; we have therefore to multiply the amount of his motion in one muhūrta by six in order to find the distance at which he first appears to the eye of man on that day.

Regarding the swiftness of the sun four other opinions are recorded by the author of the Sūryaprajñapti. According to some teachers, the sun travels in one muhūrta over six thousand yojanas, and as far as it appears this rate of motion is the same in whatever circle the sun is moving. How these teachers accounted for the fact of the sun taking the same time to travel through a large circle as through a small one is not explained. The

amount of space illuminated on each day (the *tāpakshetra*), expressed as arc of the diurnal circle of the sun, they calculated in the same manner as the author of the *Sūryaprajñapti*, *viz.*, by multiplying the amount of motion in one *muhūrta* by the number of the *muhūrtas* of the day. Thus the *tāpakshetra* on the longest day would amount to 108,000 *yojanas*, that on the shortest day to 72,000 *yojanas*. According to the opinions of two other schools, the motion of the sun in one *muhūrta* amounts to 5,000 *yojanas* or 4,000 *yojanas*. Here too nothing is said about any variation in the sun's speed at different times of the year. The *tāpakshetra* is calculated in the manner stated above. The last opinion mentioned is that of some teachers who held the rate of speed of the sun to be different during different periods of the day. According to them, the sun passes over six thousand *yojanas* in the *muhūrta* after his rising and in the *muhūrta* preceding his setting, over four thousand *yojanas* during the *muhūrta* in the middle of the day and over five thousand *yojanas* in all other *muhūrtas*.

The various opinions prevailing with regard to the rising and setting of the sun are detailed in the first chapter of the second book. The opinion of the author clearly appears from what has already been stated. There is no real sunrise or sunset; the sun or rather the two suns revolving round Mount Meru appear to rise to the inhabitants of some particular place at the moment when they enter their field of vision, and they appear to set when they leave it. In reality they always move above the *Jambudvīpa* at the same height, estimated by the *Sūryaprajñapti* to amount to eight hundred *yojanas*. At the beginning of the *yuga* at sunrise on the first of *Śrāvaṇa* the *Bhārata* sun becomes visible to the *Bhārata-varsha* having reached the south-east point of his diurnal circle; diametrically opposite to it, *viz.*, in the north-west point of the same circle the *Airāvata* sun appears to rise to the inhabitants of the tracts north of Mount Meru. During the course of this day the *Bhārata* sun therefore illuminates the countries to the south; the *Airāvata* sun those to the north of Meru. At the time of sunset the *Bhārata* sun having passed through the southern segment of his circle disappears from the view of the people south of Meru and enters the view of those west of Meru; these latter therefore have their day while it is night in *Bhārata-varsha*. At the same time the *Airāvata* sun appears to have set to the people north of Meru and to have risen to those east of Meru. On the second day the *Bhārata* sun rises to the countries north of Meru and the *Airāvata* sun to the *Bhārata-varsha*. On the third morning the *Bhārata* sun has completed a full circle and therefore again rises to the *Bhārata-varsha* while the *Airāvata* sun again rises to the regions north of Meru. And so on *ad infinitum*. We may recall here a parallel passage from the *Vishṇupurāṇa* (II, 8), tending to illustrate how sunrise and sunset were conceived to take place on the hypothesis of the sun (the *Purāṇas*

know of one sun only) moving round Meru. "The sun is stationed at all times in the middle of the day (*i. e.*, it is always midday at that place above which the sun is) and over against midnight in all dvīpas. In the same manner rising and setting are at all times opposite to each other in all the cardinal and intermediate points. When the sun becomes visible to any people, to them he is said to rise, and wherever he disappears from the view there his setting is said to take place. Of the sun which is always (above the earth) there is neither setting nor rising; his appearance and disappearance are called his setting and rising."\*

The Sūryaprajñapti adds an interesting account of other views regarding the sideways-motion (*tiryag-gati*) of the sun. According to some the sun is not a divinity, but only a mass of rays which in the morning form themselves in the East into a globular shape, pass sideways along this visible world, and in the evening dissolve again in the West. This process repeats itself daily. According to others the sun is the well-known divinity; but each morning he is born anew according to his nature in the ether in the East (*svabhāvād ākāśa utpadyate*), passes along this world and dissolves (*vidhvamsate*) at evening in the ether in the West. According to others the sun is the mighty everlasting god known from the Purāṇas; in the morning he rises in the East, passes over this world, and at evening sets in the West; from thence he returns below to the East, illuminating the parts below. This—the commentator says—is the opinion of those who hold the earth to be a globe; it finds great favour at present among the *tīrthāntariyas* and is thoroughly to be studied in their Purāṇas. This opinion has three sub-divisions. Some say the sun returning at daybreak from the parts below rises in the ether (*ākāśe*) and sets in the ether; others say he rises or originates (*uttishṭhati utpadyate*) in the morning on the summit of the mountain of rising (*udaya-bhūdhara-śīrasi*) and perishes (? *vidhvamsate*) in the evening on the summit of the mountain of setting (*astamaya-bhūdhara-śīrasi*); this repeats itself daily. (But, if he "utpadyate" and "vidhvamsate," how can he pass under the earth during the night?). Others say he rises in the morning on the mountain of rising and enters in the evening into the mountain of setting, illuminates during the night the subterraneous world and rises again from the mountain of rising. Others say, he rises, that is, originates from the eastern ocean in the morning, pe-

\* Mr. Fitz-Edward Hall (*Wilson's Viṣṇu Purāṇa*, Vol. II, p. 242) directs our attention to the "heliocentricism" taught in this passage. But clearly there is no trace of heliocentricism to be found in it. He apparently is misled by the words *सर्वत्र सदाः सदाः* which he translates "of the sun which is always in one and the same place." But this translation is quite untenable, since the Viṣṇu Purāṇa most unambiguously teaches the sun's revolution round Mount Meru.

rises at evening in the western ocean (same objection as above); others again, he rises from the eastern ocean, enters at evening into the western ocean, passes during the night through the subterraneous world, rises again from the eastern ocean. The last opinion mentioned is not very clear and an account of it is therefore not given in this place.

The third and fourth books contain particulars about the *tápakshetra*, i. e., that part of the *Jambudvīpa* which on each day is illuminated by the sun or rather by the two suns. The shape of this *tápakshetra* the *Sūryaprajñapti* compares to that of a *kalambuká*-flower turned upwards, a comparison which has to be understood in the following manner. Each of the two suns illuminates a sector of the large circle formed by the *Jambudvīpa*. These sectors are, however, not complete, but a piece is cut off from each by *Mount Meru* which standing in the middle of the circle repels by its own superior radiancy the rays proceeding from the two suns and therefore is not included in the *tápakshetra*. The interior border of the sectors is thus formed by a part of the circumference of *Mount Meru*, their outward border by a part of the circumference of the *Jambudvīpa*. Between these two sectors of light there lie two sectors of shade (*andhakára*); whatever part of the *Jambudvīpa* is covered by the two former enjoys day at the time while it is night in the regions covered by the dark sectors. As the two suns revolve these four sectors revolve with them, sweeping over the whole extent of the *Jambudvīpa* and producing alternate day and night in all its parts. The relative magnitudes of the *tápakshetra* during the different parts of the year is estimated in accordance with the statements about the relative length of night and day. On the longest day the two suns, moving in the innermost circle, together illuminate three-fifths of the *Jambudvīpa*, each of them three-tenths; on the shortest day they illuminate two-tenths each, together two-fifths. On the day after the summer solstice when the suns have entered into the second circle, and are moving at a greater distance from the centre, the extent of the *tápakshetra* decreases

accordingly, so that it then equals  $\frac{3}{5} - \frac{1}{5 \times 183} = \frac{3}{5} - \frac{1}{915}$  of the

whole *Jambudvīpa* only; the same decrease repeats itself daily up to the day of the winter solstice when the extent of the illuminated portion of the *Jambudvīpa* has reached the minimum stated above. From that period it again begins to increase by the same portion daily. From this the absolute dimensions of the *tápakshetra* or, to express it more conveniently, of one of the two sectors composing the *tápakshetra* are easily derived. The two straight lines by which it is limited are equal in length to the radius of the *Jambudvīpa* less the radius of *Mount Meru* (50,000 — 5,000 = 45,000 *yojanas*). To this we find in one passage of the *Sūryaprajñapti* added the sixth part of the breadth of the salt ocean surrounding the *Jam-*

budvīpa, up to the end of which the light of the sun seems to reach, on the longest day at least; this gives altogether  $78,333\frac{1}{2}$  yojānas (=  $45,000 + \frac{200,000}{6}$ ). In the statements regarding the measure of the two arcs limiting the sector, no reference is made to the salt ocean. We find these measures for the longest day by dividing the circumference of Mount Meru as well as that of the Jambudvīpa by ten; three of these ten parts of the first kind give the interior arc of the truncated sector, three of the second kind the exterior arc. On the shortest day we have to take two-tenths instead of three, and there is no difficulty in finding the corresponding increase or decrease on all days between the summer and winter solstice. In the same manner the dimensions of the andhakāra, the dark portion of the Jambudvīpa, are readily ascertained. Finally some statements are made about the distances to which the light of the two suns reaches above, below and towards both sides. It is said to reach to a thousand yojanas above (above the chariot of the sun, svavimānād ūrdhvam). Further it is said to reach down to the depth of 1,800 yojanas, for which the following explanation is given. The sun is at the height of 800 yojanas above the earth, and below the surface of the earth at the depth of 1,000 yojanas are the subterranean regions (adholaukikagrāmāḥ), down to which the sun's rays are penetrating. No further details about these subterranean dwellings are given. Towards both sides, the east and the west, the light of the sun is said to extend to the distance of  $47,263\frac{2}{3}$  yojanas.

For the sake of completeness, the various other opinions with regard to the subjects treated in the last paragraphs are added. Some say that the sun and moon illuminate one dvīpa and one ocean; while according to others the numbers of dvīpas and oceans illuminated are 3,  $3\frac{1}{2}$ , 7, 10, 12, 42, 72, 142, 172, 1042, 1072. No details are given. One chapter contains the enumeration of a number of very fanciful opinions about the form of the tāpakshetra, which it would, however, be purposeless to extract in this place.

On the assumption that the sun describes every day a circle which is at the distance of  $2\frac{2}{3}$  yojanas from the circle described on the preceding day, the question naturally suggested itself, how the sun passes over from one circle into the next one. This question is treated in I, 6, and II, 2 where two different opinions are expounded which, although the account given of them is not altogether clear, appear to be of the following nature. According to some the sun enters from one circle into the other, "bhedaghātana" which (bheda being explained to signify apāntarāla) seems to mean that the sun passes from one circle into the next one by moving over the distance separating the two all at once. Thus the sun would really move in perfect circles and the motion across from one circle into the



other would be a momentary one only. The other opinion, and to this the Sūryaprajñapti seems to adhere, is that the sun does not in reality move in separate perfect circles, but rather in an uninterrupted spiral line. As the Sūryaprajñapti expresses it, the sun begins from the moment he has entered the first circle to move "śanaḥ śanaḥ" across towards the second circle, and as soon as he has reached the second circle, he begins to move towards the third circle, etc. The term "karṇa" which occurs in this description of the sun's motion seems to denote the spiral line which passing across the whole room between the two circles connects the two; a line which might properly enough be called "karṇa," *i. e.*, diagonal. On this hypothesis then we should have to remember that the sun is only for convenience sake said to describe a separate circle on each day, and that in reality he is supposed to describe a continuous spiral line.

After having thus given a succinct account of the Sūryaprajñapti's theory concerning the motion of the sun, we now proceed to consider the statements referring to the motion of the moon.

(To be continued.)

*Memorandum on Clay Discs called "Spindle Whorls" and votive Seals found at Sankisa, Behar, and other Buddhist ruins in the North Western Provinces of India.—By H. RIVETT-CARNAC, ESQ., C. S., C. I. E., F. S. A. (With three Plates.)*

Last year I submitted for the inspection of the Asiatic Society specimens of stone and clay discs, similar to what are called "spindle whorls" by the Antiquaries of Europe, found by me at the Buddhist ruins of Sankisa, Behar, &c. in the Fatehgarh District, N. W. Provinces of India. Certain clay seals stamped with the Buddhist formula found in the same localities were also exhibited. The resemblance between these "spindle whorls" and those described and figured by Dr. Schliemann in his work "Troy and its Remains" was briefly noticed by me at the time. Since then I have obtained some more specimens of these discs and seals, and I think it well that they should be submitted for the inspection of the Asiatic Society, and that the attention of its Members and of other Antiquaries should be directed to the resemblance to be traced between these remains and those found in the ruins of Hissarlik and in many parts of Europe.

First as regards so called "spindle whorls." When we were encamped at Kanouj, Sankisa and Behar Khas in the Fategarh district, the village urchins were encouraged to bring to us everything in the shape of "Antiquities" that could be grubbed out from these extensive ruins and from neighbouring mounds. These sites, as is well known, present many features

of resemblance to those which Dr. Schliemann dug through at Hissarlik, described at length in his work upon Troy. That is to say, it is generally found in the case above-mentioned that the site has been selected on account of some Kunker Hill which, rising out of the flat alluvial soil of the Doab, offers a point of vantage for the building of a fort or city. Here, as at Hissarlik, these sites often bear the traces of several distinct colonies. The mud buildings of one set of colonists have been razed by their conquerors or successors to build thereon houses and temples which have again been levelled to form the foundations of the habitations of later settlers. The high mounds, on which part of the present town of Kanouj is perched, is to be accounted for in this way, and there can be little doubt that if shafts were to be carried through the ruins there, after the manner adopted by Dr. Schliemann at Hissarlik, the traces of several distinct periods might be unearthed. What has been said of Kanouj holds good in regard to Sankisa, Ramnuggur and other ruins. Much has not yet been done to explore these localities, and the recent interesting find of Mitra coins, reported by me to the Society, indicates that careful investigation might prove remunerative to antiquarian research. The heavy rains of India are, however, of much assistance in running amateur sections through the ruins, and in exposing from time to time relics of more or less interest. Amongst these may be classed the "spindle whorls" now to be noticed, many of which together with coins, beads, etc. are collected and set aside by the villagers as possessing some mysterious significance, and are brought out for sale when the District Officer or some occasional visitor camps near the place.

Of these clay discs and their stone prototypes four distinct classes are to be noticed :

A. Terra Cotta Discs, plain and ornamented.

B. Ditto with a hole through the centre.

C. Terra Cottas "in the form of a top and the crater of a volcano" (I use the words of Dr. Schliemann, *Troy*, p. 38 to describe these peculiar specimens).

D. Clay Balls, plain and ornamented.

With respect to A, Clay or Terra Cotta discs, these were brought to us in enormous quantities, and, if disposed to do so, we might have purchased and carried off several elephant loads of this description of relic. At the time I did not attach much importance to them, and am sorry now that no careful selection was made of those bearing different styles of ornamentation. They are all of red or black clay well baked. In size they vary from 1 inch to 2 inches in diameter and are about  $\frac{1}{4}$  of an inch in thickness. The majority of them bear a rough ornamentation at the edges only, see Plate XIII, sketches 1 and 2. Others again show traces of more elaborate design and workmanship. Some of these are figured in sketches 3 to 7.

On one, No. 5 of my sketch, will be seen the broad arrow noticeable on Schliemann's No. 458. On another, No. 6, is what looks like the sign of Saturn or what Dr. Schliemann calls the "mystic rose," well known on Buddhist coins and in Buddhist art. They all have more or less ornamentation at the edges, resembling the spokes of a wheel or possibly the rays of the sun.

I also obtained at Sankisa several stone discs of nearly the same shape as the Terra Cottas. They are all highly polished. One is of black marble, another of crystal. Several are of red marble, and the material must have been brought from a distance, as no stone save kunkur is to be found within many miles of Sankisa. It will be noticed that all these stone specimens are grooved at the edges, see the section in sketch No. 8, whereas but few of the clay specimens have received such treatment.

Type B, sketch No. 9, on Plate XIV consists of clay discs similar in most respects to the foregoing, save that a hole has been drilled through the centre of each. I did not pay any particular attention to the proportion in which these different classes were brought to me in camp. But I find that I have many more of the plain discs than of those which have been pierced. There can be little doubt, however, that many hundreds of the pierced ones might have been obtained on the spot, and I am sending to ascertain whether any more ornamented specimens are procurable. The specimen marked and figured in sketch No. 10 is of grey granite. It bears the same relation to the pierced clay discs as the stone and crystal discs mentioned above bear to the clay whorls of type A. In the centre is a hole, round which are six concentric circles.

The specimen figured in sketch No. 11, is of a somewhat different type from the foregoing, as a section of the sketch will explain. The impressions of the spokes of a wheel with dots between each spoke appear to have been made in a stamp or mould. I find I have only two of this class in my collection. But doubtless hundreds more might have been obtained had I not been afraid of burdening myself during the march with too large a collection of such specimens.

Of type C, Sketches Nos. 12 and 13, on Plate XIV, which may be described in Dr. Schliemann's words as being in the form of a "top or crater of a volcano" I have, I find, but 4 or 5 specimens; I have little doubt that large numbers were offered to me, but at the time they did not appear to possess any particular significance. It was only in tumbling out a large number of discs from the box, in which they had long been kept, that I recognised this type of the illustrations of Dr. Schliemann's book, just consulted with reference to the Discs A and B mentioned above. The specimens I have with me do not bear any marks of ornamentation. Further search may perhaps bring better specimens to light. (Since this was written some ornamented ones have been found.)

Lastly we have type D, Clay Balls, Plate XIV, sketches Nos. 14, 15, 16, resembling somewhat those figured by Dr. Schliemann. Several of them are roughly ornamented, and the designs, such as they are, will be seen from the sketches.

I hardly know how it happened that these specimens were carried away by me. Certainly no importance was attached to them at the time; and they would have escaped my notice altogether, had I not seen, when comparing the clay discs, the sketches of somewhat similar balls figured in the last pages of Dr. Schliemann's book.

Lastly, I have also figured two specimens Nos. 17 and 18 which seem to approach type C. And an enamelled glass bead No. 19.

This bead is similar to that figured in Thomas' Prinsep, Pl. IV, No. 13. These beads are found in large quantities together with crystal, onyx cornelian and others at Sankisa and similar ruins. It seems desirable to figure the specimen with this paper in order to ascertain whether similar ones are found in Europe or elsewhere. The village urchins during the rains make a practice of collecting these beads, and they are usually given to *fakirs* or devotees. Seeing such a necklace worn by an old *fakir* led me to enquire whence the beads came. And I had little difficulty in procuring a variety sufficient for about nine necklaces.

I have now to direct attention to the resemblance between the specimens above described and figured, and those discovered by Dr. Schliemann at Hissarlik and noticed at great length and figured in large numbers in his well known work upon Troy.

As regards type A, clay discs more or less ornamented, without the central hole, I cannot be quite certain that this type was found by Dr. Schliemann. I do not see that any distinct mention is made of unpierced discs, and it is not quite clear from the sketches in Dr. Schliemann's work, whether, what is referred to as the Central Sun on the Discs figured in plates 22 and 23, is a hole drilled through the centre or is a depression or ornamentation representing the sun. Still, even if this particular type was not found at Hissarlik, it is found in Italy, and, as will be shewn further on, the resemblance between the remains found at Hissarlik and those of Italy is referred to by Dr. Schliemann.

Dr. Schliemann writing of his discoveries at page 187 of his work above quoted, thus refers to the discs:

"During the last few days we have also found, in the strata next above the primary soil, at a depth of from 46 to 36 feet, a number of round brilliant black terra cottas of exquisite workmanship; most of them much flatter than those occurring in the higher strata and resembling a wheel; many are in the shape of large flat buttons. But we also meet with some in the form of tops and volcanoes which differ from those found in the higher strata only by the

fineness of the terra cotta and by their better workmanship. The decorations on these very ancient articles are, however, generally much simpler than those met with above a depth of 10 meters (33 feet) and are mostly confined to the representation of the sun with its rays, or with stars between the latter, or of the sun in the centre of a simple cross, or in the middle of four or five double or treble rising suns. At a depth of 6 meters (20 feet) we again found a round Terra Cotta in the form of a volcano, upon which are engraved three antelopes in the circle round the sun.

"At a depth of from 5 to 8 meters (16½ to 26 feet) a number of terra cotta balls were found, the surface of each being divided into eight fields; these contain a great many small suns and stars, either enclosed by circles or standing alone. Most of the balls, however, are without divisions and covered with stars; upon some I find the swastica and the tree of life, which, as already said, upon a terra cotta ball found at a depth of 26 feet, had stars between its branches." (Schliemann's *Troy*, p. 187.)

The above extract embraces not only the so-called spindle whorls, but mentions the volcano-shaped "whorls" of type C found at Sankisa and type D brought away by me from the same place. The discs were found by Dr. Schliemann of terra cotta, of marble and of crystal. So at Sankisa did we find clay, marble and crystal discs.

A comparison of the Plates appended to Dr. Schliemann's volume with the specimens submitted by me and the sketches which accompany this paper will, I think, shew that there is at least some resemblance between the remains found at Hissarlik and those at Sankisa.

On nearly all these discs will be seen what are constantly referred to as the spokes of the wheel or the rays of the sun. I have placed side by side with my sketches a copy of the whorl engraved by Dr. Schliemann at page 137. It might fairly be taken to be a representation of the whorl given in Plate XIV, Sketch 10 appended to this paper.

Then my collection is unfortunately in no way large or complete. When at Sankisa, I had little idea of the significance of these remains or their resemblance to well known types, and I only purchased a few of them in the manner that I collect everything that seems to be unusual or strange. Further search may possibly bring out even more remarkable points. The few specimens that I have succeeded in obtaining bear, however, a resemblance, not only in shape, but also in ornamentation, to those figured by Dr. Schliemann, sufficient to render the subject interesting. The broad arrow of my Sketch No. 5 and the Mystic Rose or sign of Saturn, or the numeral four of my Sketch No. 6, are all to be traced among Dr. Schliemann's specimens; and then again on the balls some similarity in ornamentation is to be traced.

It would perhaps hardly be right to attach much importance to the

fact, that one or two clay discs were found in Buddhist remains in India, and that discs of somewhat the same type were unearthed at Hissarlik. But here we have, not only pierced discs of type B, but the Volcanoes C and the Balls D, all three types resembling in some degree the three types of Hissarlik and all three types bearing somewhat similar forms of ornamentation.

Again it is to be noticed that the remains at Sankisa are undoubtedly Buddhist. Sankisa as is well known was a celebrated place of pilgrimage, being sacred as the spot at which Buddha is supposed (as described by General Cunningham, Vol. I, *Archæological Reports*) "to have descended from the Trayastrinsa heaven by the ladder of gold or gems, accompanied by the gods Brahmá and Indra."

The place was visited and described by the Chinese pilgrim Fa Hian early in the 5th century, and by Hiouen-Thsang in the 7th century A. D. A detailed account of these interesting ruins will be found in General Cunningham's *Archæological Report* above alluded to.

Now the ornamentations on the Terra Cottas of Hissarlik, if they are not Buddhist, certainly bear a close resemblance to the ornamentations on coins, buildings, etc., which in India are generally supposed to be Buddhist.

Thus the wheel continually recurs in Schliemann's sketches, together with the Swastika. And what Schliemann calls the Mystic Rose, and Ferguson the Trisul ornament is quite as frequent. The Sacred Tree, the Fire Altar and the Deer are also almost as common. In fact, we have every one of the Buddhist symbols of the well known type of the so-called Buddhist coin, figured in No. 1, Plate IV, Thomas' Prinsep, and of which an engraving is given at page 17 of Fergusson's *Indian and Eastern Architecture*. Mr. Fergusson points out, however, that there is some doubt whether these symbols really are Buddhist, and at the page above referred to, writes, "One coin of the period is well known. It belongs to a king called Kunanda or Krananda generally assumed to be one of the nine Nandas with whom this dynasty closed. In the centre on one side, is a dagoba with the usual Buddhist Trisul emblem over it, and a serpent below it: on the right the sacred Tree, on the left the Swastika with an altar (?) on the other side a lady with a lotus (Sri ?) with an animal usually called a deer, but from its tail more probably a horse, with two serpents standing on their tails over its head which have been mistaken for horns. Over the animal is an altar, with an umbrella over it. In fact a complete epitome of emblems known on the monuments of the period, but savouring much more of Tree and Serpent worship than of Buddhism as it is now."

Dr. Schliemann at page 38 of his work refers to the resemblance between the Terra-Cottas of Hissarlik and those of Italy. This directed my attention to Gastaldi's work. The following extract will show that if it be considered that the resemblance between the remains at Sankisa

and Hissarlik is not established, such doubt can hardly exist regarding the Indian and Italian remains.

Gastaldi says: "There are very many of these objects, for the greater part of Terra-Cotta, more or less discoidal, or conical, or spheroidal, pierced in the centre, to which the Archæologists of France and Germany, as well as our own, have given the name of spindle-whorls. The paste of the spindle-whorls is not, for the most part equal to that of earthenware; instead of the grains of sand, we find powdered carbon and ashes; the colour is ashy in the internal parts, and ash colour varying into yellow and red on the outside. Some few spindle-whorls are black, and of a substance probably similar to the thinner vases, and, like a great number of these, are shining externally as if with varnish. They are very various in form; and although eight different ones have been represented by you, from those which, in the course of the summer, we sent from Campeggine, courteously presented by the brothers Cocconi, not one represents the other six, collected in the sequel, in the marl-beds. Some few bear marks scratched upon them, and are among those you have had engraved (Fig. 25).

"Besides all the spindle-whorls of earth, there were dug up from the marl-beds of Castellazzo di Tontanellato, three others, which are cut out of different substances. One was made out of a stag's horn, it is in the shape of a cone, and is very highly polished; the second of stratite, of a greenish tint, and spheroidal; the third, of a whitish limestone (calcare), is disc-shaped, brought to a high degree of polish, and certainly manifests an advanced epoch in art among the people who used such implements. Among the objects in the Museum of Antiquities at Parma, which are of uncertain derivation, there are twenty spindle-whorls, some in limestone, stratite, and even amber, but the greater part of earth; some are polished, some are ornamented with circles, concentric with hole pierced in them, or in concentric lines disposed in groups on the back of the spindle-whorl. We find among these the transition from the more depressed discoidal form, almost medallion (nummulik) to the acute conical. Some one of those in terra cotta is said to have been collected from the ruins of the Roman City of Velieia. The different forms, finish and substances of the spindle-whorls would lead us to suppose that they must have served for various uses in proportion to their diversity; perhaps the most beautiful and carefully worked were amulets, or else buttons; the others weights, used either for nets or in weaving."

"Besides all the earthenware and all the spindle-whorls which we have spoken of, we meet in the marl-beds with other small objects in earth, badly baked, in form disc-shaped, without any hole, sometimes ball-shaped (pallottola), of which it is impossible to divine the use which they served."

(Lake Habitations and Prehistoric Remains in Northern and Central Italy. B. Gastaldi, pp. 44, 45, 46, 47.)

In Italy these mysterious articles are found of clay and marble, as in India. The ornamentation is the same and in Italy also are found the disc-shaped *Terra Cottas* *without any hole* similar to those of North Western India. It is hardly necessary to burden this paper with any more sketches. The Italian remains are almost exactly the same as those of Schliemann, but I cannot resist the temptation of copying the specimen marked 8 B which will be found figured at p. 45 of Gastaldi's work. It is almost identical with No. 12 of those figured by me.

Next as to the use to which these remains were placed. Dr. Schliemann discusses the subject at length in several places in his valuable work on Troy. And it will be seen that Gastaldi is puzzled as to their significance. Dr. Schliemann arrives at the conclusion that, although some of them may have been used as spindle-whorls, the greater number of them were votive offerings. And Gastaldi considers that some at least were amulets. The symbols on most of those found at Hissarlik would seem to leave little doubt of their religious character. Of the Indian specimens, it is not easy to say why some should have the central hole and others should be unpierced. But, if they are votive offerings, the fact that the pierced ones were found in smaller quantities at Sankisa than those without the hole, may possibly be explained by a practice, which was noticed by me years ago at some shrines of pilgrimage in the Central Provinces. There the pilgrim, when he makes a vow or implores a favour, smears his right hand with red colouring matter, and impresses it, fingers upwards, on the wall of the temple, leaving there a mark like the Red Hand of Ulster. If the favour, the birth of a child or whatever it may be, is granted by the presiding deity, the pilgrim is supposed to return to the shrine the following year, and to impress on the wall a similar mark, the fingers of the hand this time pointing downwards. It was very noticeable that the latter marks were well in the minority, and it was carefully explained by the local priests that this was not to be accounted for by the supposition that the deity was slow in his favours, but that, in truth, the suppliants, when they had obtained what they wanted, were not always mindful to return and to fulfil their vows. Perhaps in this way the proportion of the unpierced to pierced discs may be explained. The unpierced ones being offered when a favour was implored, the pierced ones when it was obtained.

Be this as it may, the view that these discs are votive offerings is supported by the religious character of the symbols, already alluded to, found on the whorls of Hissarlik and Sankisa. Since I commenced to write this paper, I have received a copy of Alabaster's "Wheel of the Law." At Fig. 8 A will be found a copy of the sketch of the Buddhist wheel of the



law given in that work. And it is almost unnecessary to point out the resemblance which the highly ornamented Disc No. 7 bears to this sketch. The other discs, though not so elaborately ornamented, seem to adopt the same idea. No. 11, as far as ornamentation is concerned, undoubtedly resembles a wheel, though, as the section will show, it can never have been used, as some of my friends have suggested, as the wheel of a toy cart; nor indeed are there any marks of wear on any of the wheel-shaped discs to support the view that they were used for miniature playthings of this description. It seems much more probable that they were votive offerings intended to represent, more or less the Buddhist wheel of the law, similar to that stamped on some of the coins recently submitted by me to the Society.

The view that these were indeed votive offerings, and not toy cart wheels or *pachisi* or draughtsmen, as some have suggested, is further borne out by the large numbers of clay discs, of a somewhat similar type, but bearing on them the well known Buddhist formula, found in the same neighbourhood. These seals, as they have sometimes been called, from their bearing a seal-like impress, have been figured by Moor in his Hindu Pantheon and have been described by General Cunningham, by Dr. Rajendralála Mitra, C. I. E. and others. General Cunningham, if I remember right, found large quantities of such "seals" made of lac in the Buddhist ruins of Behar. Though my stay at Sankisa was short, I succeeded in obtaining a considerable number of these seals. Many of them are from the same stamp. Others from different moulds bear the same well known formula commencing "*ye dharma hetavo.*" The character of the legend in all these cases is comparatively modern. Those, however, marked 1 and 2 Plate XV bear the formula in the Gupta character. Others again marked 3 to 6 are deserving of notice from the variety of their ornamentation. They would seem all to have been made and stamped, in what I may call, a cushion-like fashion, after the manner of the quaintly-shaped Mitra coins recently submitted by me to the Society. Some of these seals are I think worthy of being figured in the Society's Journal.

There can be little doubt that these so-called seals, bearing the Buddhist formula, are votive offerings. A friend of mine, Mrs. Murray-Aynsley who recently travelled through a portion of Ladakh, brought me thence two stones, one inscribed with a portion of the Buddhist Formula, Plate XV, No. 7, the other bearing a conventional ornamentation. That these stones are offered in the present day, will be seen from the following extract from Mrs. Murray-Aynsley's work entitled "*Our Visit to Hindostan, Kashmir and Ladakh,*" p. 88.

"We there first saw some of the walls called *Mánés*, which are formed of stones placed one upon the other without any mortar, and are

usually about four feet high, and four feet wide. Some of these walls are as much as a quarter of a mile in length, and are made, we were informed, with the following object. When a Buddhist undertakes a journey, or makes a vow, he chooses a flat stone, takes it to a monastery, and gets a lama (or monk) to engrave some rude characters upon it, which are said to be usually, 'Om mani padme Om,' which has been translated to mean, 'All hail to the jewel in the flower of the lotus!' though some give other interpretations to these words. When his stone is thus prepared, the individual places it on the top of one of these walls, which on their upper surface are almost covered with such engraved stones. Thibetans when passing these walls, always keep them on their right hand, and frequently go out of their direct road in order to do this."

There would seem, then, to be little doubt that the Terra-Cottas, plain and ornamented, and those also bearing the formula of the Buddhist faith, were votive offerings of a by-gone age.

In what little I can do to further the objects of the Society, I generally try to content myself with bringing facts to notice, and pointing out the resemblance between the remains found in India and those discovered in other parts of the world. It must be left to those who are better informed than myself, or who are more fortunate in being able to consult what has been written by authorities on the subject, to determine whether there is any real significance in the resemblance between the remains found at Sankisa and those of Hissarlik and Italy. I am not unprepared for the argument that a knife is a knife all the world over, and that this form of implement must have suggested itself to all people at an early stage of civilisation; and that the fact of implements in the form of knives having been found at Hissarlik and at Sankisa would not be sufficient to establish any connection between the settlers at these widely separated sites. It may also be urged that earthen spindle-whorls might naturally enough suggest themselves to different races situated far apart from one another. But surely there is something more than a chance resemblance in the several types of these remains and the style of their ornamentation? And does not the continual recurrence of, what we call, the Buddhist symbols on the Hissarlik finds, suggest the possibility of Hissarlik and Sankisa having been colonized by branches of the same race, be it Buddhist or not, one of which striking west from some point in Central Asia, found its way to the shores of the Mediterranean, whilst another, taking a southerly course, established itself in the Gangetic valley?

*Supplementary Memorandum.*

(With a Plate.)

Since writing this Memorandum on spindle-whorls, I have received from Sankisa a further consignment of these peculiar remains.

In my paper recently read before the Society I mentioned that the flat discs, plain and perforated, were to be found in large quantities. I have received a further large consignment. But the perforated ones are much less numerous than the others. It is unnecessary to send any more of these types.

Of what Schliemann calls the volcano-shaped *Terra Cottas* I have received several more. This bears out my view that they are numerous. Nos. 1 and 2, Plate XVa, are interesting from their decoration. The one it will be seen is decorated on the top. The other is decorated on the base with what would seem to be a flower and in a manner resembling the *Hisarlik* types.

I send also three more balls, Nos. 3-5. These are ornamented with stars, crosses and with lines. Several others of the same type have since reached me.

I have obtained many more clay seals of the same type as those already sent. One only marked No. 6 is different in its character from those already submitted to the Society.

No. 7, is a fragment of pottery highly ornamented with the rosette or wheel of the law, or whatever it may be, common on Buddhist remains.

I should be glad of any explanation of the peculiar piece of soapstone marked No. 8. Its ornamentation is curious. The grooves at the top will be noticed. It may possibly have been worn as an amulet.

Further enquiries are being made at Sankisa, and I hope to be able to obtain many more specimens showing various forms of ornamentation.

It has been suggested that the curious balls of various sizes with their different markings may have been intended to represent the sun, moon and stars.

I see that the genuineness of the antiquities found at Sankisa and Behar is doubted by some. But these sites do not see on an average one European visitor a year; as yet no one save myself has collected there these specimens, and so it is hardly to be supposed that the native mind has yet been sufficiently prepared to attempt to provide forgeries for a possible future trade in such articles.

*Note on some copper Buddhist coins.*—By H. RIVETT-CARNAC, Esq., C. S.,  
C. I. E., F. S. A.

(With two Plates.)

I send for the inspection of the Society, some coins, mostly Buddhist from my Cabinet, some of which may perhaps prove of interest. They will not all, I think, be found described or figured in the works most readily accessible to Members, and it is possible some of them may be new types. I am indebted to Mr. A. Carlleyle of the Archæological Survey for the readings on the coins.

Plate XVI, Nos. 1, 2. Legend *Vaisakha Devasa*. Two coins, if they may so be called, of the same type differing in size. They are evidently *casts, i. e.*, have been made in a mould prior to the time the art of stamping was discovered. On one side is the Bull taking here the place of the Elephant common to the earlier coins. The name tolerably clear above the Bull. On the obverse what looks like the Trisul of the Sanchi Topes, and the snake. I should be glad to know if this coin is known to the Society?

No. 3. Legend *Rája Kamuda Senasa*. This coin resembles the preceding ones in several respects. The Bull again occupies the most prominent place. The legend is beneath the Bull; near the head of the Bull is the sacred tree. Behind the Bull is the snake. At first sight this has the appearance of an elaborate tail of the Bull. But a careful inspection will show that the tail is separate and quite distinct. On the obverse is the well known ornament which I think Fergusson calls the "Trisul," though it is different enough from Shiva's trident. It will be noticed that the marks on these coins have apparently been stamped in the same manner as those of the Mitras, found near Bareilly and recently submitted by me to the Society. The Bull and Legend have been stamped in, as if with a square seal, and cover but a portion of the circular piece of metal. Perhaps these coins represent some of the earliest attempts at coining?

No. 4. Legend *Aja Varmma* or *Asha Varmma*; a coin of the same type as above; the legend differing.

No. 5. Legend *Maphaba Varma*. The same remarks apply here also. The coin has been cut in two, and was just going to the melting-pot when I was fortunate enough to rescue the two pieces from a quantity of rubbish. It is to be feared that a good many coins are thus lost to us. All the above were obtained by me at Faizabád.

No. 6. *Maha Satama*. A coin apparently of the same type as above but in bad preservation.

No. 7. *Satya Mitrasa*.

No. 8. *Ayu Mitrasa.*

No. 9. *Saya Mitrasa.*

All of the well known "Cock and Bull" type, but new names I believe.

No. 10. *Yaya Mitra* (two specimens).

Plate XVII No. 11. *Vyaya Mitra.*

These coins seem much older than the preceding ones.

No. 12. (Lion) *Laranga* or *Larata* or *Lâjasa.* (Tree) *Sûgâta-Yanapya.*

This coin is quite a different type from the preceding. On one side is a Lion much resembling the carvings found among the ruins of old Buddhist Temples.

No. 13. A pretty little Buddhist coin of a type I have not yet seen figured. The sacred tree is encircled by the snake forming a sort of rosette in the centre of the coin.

No. 14. These three little oddly-shaped specimens have all well stamped on one side what looks like the conventional Heraldic Lion. On the other side may be traced marks somewhat resembling the sign *Pisces* of the Zodiac.

No. 15. Two specimens of a coin which is perhaps new. On one side what looks like a Fish as in the preceding coins, on the other a Thor's Hammer (?) or perhaps the sign of Saturn combined with some other sign in such a manner as to form a monogram?

No. 16. Three little coins of sorts.

I should be glad for information regarding the dynasties, dates, &c., of these coins.





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# JOURNAL

OF THE

## ASIATIC SOCIETY OF BENGAL.

Part I.—HISTORY, LITERATURE, &c.

No. IV.—1880.

*Remarks on the Afgháns found along the Route of the Tal Chotíali Field Force, in the Spring of 1879.—By* LIEUT. R. C. TEMPLE, B. S. C., F. R. G. S., M. R. A. S. &c. (With 3 Plates and 2 Maps).

(Concluded from page 107.)

### PART II.

#### III. *Distribution of the Tribes.*

In the above description of the Tribes along the Tal Chotíali Route their distribution *en route* has been but briefly referred to. In the next Table the names of the tribes inhabiting the villages on the accompanying map are shown. And it will be seen that as a rule the Pathán Tribes and Sections stick pretty well together and are generally to be found in certain compact districts and nowhere else.\* Thus Achakzais are confined to the region about TO'BA and the KHO'JA AMRÁN range, and the TO'B TARÍNS to the Pishin Valley. Among the Kákar sections the same thing is to be observed. The AMAND KHE'L occupy the country about the north of the Pishin to Mt. KAND and the SULIMÁN KHE'L the range dividing the Pishin and DO'F Valleys, the MEHTARZAI'S all the country to the north of the R. RO'D Gorge and the PÁNÍZAI'S that to the south of it and so on. Even where the country seems to be pretty well divided between sections, as the DO'F

\* Villages of mixed populations are to be found in the more settled parts, such as the Pishin, DO'F, and GWA'L Valleys, though not commonly, and when it is said that a certain village is occupied by a certain subsection or section it is meant that the main portion of the inhabitants belong to it. As a rule, however, villages are not mixed.

Valley and the Ro'd River Gorge, it is divided only among a few, as only Bázais, SHAMOZAI, SURGARAI, MALAGAI, ISA' KHELs and SARA'NGZAI amid the surrounding MEHTARZAI and PANÍZAI are found in the districts in question. Sayads do not seem to have penetrated into the Kákar country beyond the K. Ro'd, near which there is one village of them, and a few SPÍN TARÍNS are said to be about ALÍZAI in the Pishin, but practically there seems to be no communication between the SPÍN and the TO'B TARÍNS. The DUMARS probably occupy all the country to the south of the SHO'B Valley from Mt. MAZHWO to the TAL Valley, but in the ZHO'B Valley the tribes seem to be mixed, though the ZHO'B Valley Kákars seem to be a section apart and to hang together.

| Tribe.             | Division.      | Section.             | Subdivision. | Subsection.   | Village.           | District.       |     |
|--------------------|----------------|----------------------|--------------|---------------|--------------------|-----------------|-----|
| DURA'NI ZI'RAK     | PO'PALZAI      |                      | ...          | SADOZAI       | PO'PALZAI          | PISHIN.         |     |
|                    | BA'BAKZAI      |                      | ...          | MOHAMMADZAI   | ASAD KHA'N         | Do.             |     |
| TARI'N             | "              | ACHAKZAI             | BARA'DURZAI  | KA'KOZAI      | MI'SHDIL KHA'N     | Do.             |     |
|                    |                | "                    | "            | "             | MI'EKALAM KHA'N    | Do.             |     |
|                    |                | "                    | "            | "             | KA'KOZAI           | Do.             |     |
|                    |                | "                    | "            | "             | KALA ABDULLA KHA'N | Do.             |     |
|                    | TO'B<br>TARI'N | BADOZAI<br>KHA'NIZAI | "            | "             | ABDAL              | TANGAI          | Do. |
|                    |                |                      | "            | "             | "                  | MADAT           | Do. |
|                    |                |                      | "            | "             | HABI'UZAI          | HABI'BULLA      | Do. |
|                    |                |                      | "            | "             | ...                | BADWA'N         | Do. |
|                    |                |                      | "            | "             | LU'B KHA'NIZAI     | MOHAMMAD SA'DIK | Do. |
|                    |                |                      | "            | "             | "                  | LA'L MOHAMMAD   | Do. |
| NU'UZAI<br>KULÁZAI | "              | ALÍZAI               | ...          | DAB KHA'NIZAI | VAKI'L             | Do.             |     |
|                    |                | "                    | ...          | "             | DAB KHA'NIZAI      | Do.             |     |
|                    |                | "                    | ...          | "             | GAURI              | Do.             |     |
|                    |                | "                    | ...          | "             | SAYAMZAI           | Do.             |     |
|                    |                | "                    | ...          | "             | ALÍZAI             | Do.             |     |
|                    |                | "                    | ...          | "             | ATÁ MOHAMMAD       | Do.             |     |
|                    |                | "                    | ...          | "             | SOPANZAI           | Do.             |     |
| "                  | ...            | "                    | NU'UZAI      | Do.           |                    |                 |     |
| "                  | ...            | "                    | SKAN         | Do.           |                    |                 |     |



|           |                       |                  |           |
|-----------|-----------------------|------------------|-----------|
| TABI'N    | TO'R                  | TO'YI            | Do.       |
| TABI'N    | MU'SHAI               | RAHAMDIL KHAN    | Do.       |
| "         | "                     | DADGWAL          | Do.       |
| "         | MA'LIKYA'B            | NO'A BA'ZA'B     | Do.       |
| MA'EZAI   | MA'LIKYA'B            | MA'LIKYA'B       | Do.       |
| HAIKALZAI | HAIKALZAI             | BRUJA'N KALA     | Do.       |
| MANZAKAI  | MANZAKAI              | HAIKALZAI        | Do.       |
| MA'LIKAI  | MA'LIKAI              | MANZAKAI         | Do.       |
| HA'BU'N   | HA'BU'N               | MA'LIKAI         | Do.       |
| "         | "                     | SIBB' KHILA      | Do.       |
| KAMA'LZAI | KAMA'LZAI             | SHE'KHA'LZAI     | Do.       |
| SPIN      | none named            | KAMA'LZAI        | Do.       |
| TABI'N    | "                     | SHINLE'Z         | Do.       |
| "         | "                     | TAL and          | CHOTIALI. |
| "         | "                     | TAL              | Do.       |
| "         | "                     | CHO'TIA'LI       | Do.       |
| "         | "                     | RAHA             | Do.       |
| "         | "                     | KO'LU            | Do.       |
| "         | "                     | BRHAMZAI KHELA'T | Do.       |
| KA'KAR    | LO'WE' KHWAIDA'DZAI   | KHWAI            | ZHO'B.    |
| KA'KAR    | KA'KA'B MURSIA'NGZAI  | GHUNDAMARAI      | Do.       |
|           | SURGARAI              | HINDU' BA'GH     | Do.       |
|           | MEHTARZAI             | WABGHAS          | Do.       |
|           | MUSA' KHE'L           | BA'ZA'B          | Do.       |
|           | BA'RAKZAI             | BA'SHO'B         | Do.       |
|           | none named            | GHURAT           | MT. KAND  |
|           | KUCHNAISULIMA'N KHE'L | SHARAN           | ZHO'B.    |
|           | KA'KAR                | NABIN            | DO'F.     |
|           | "                     | MURGHAI          | Do.       |
|           | AMAND KHE'L           | HA'JI KHA'N      | Do.       |
| KA'KAR    | "                     | KA'MIL KHA'N     | FISHIN.   |
|           | MEHTARZAI             | KHUNCHAGAI       | TO'BA.    |
|           |                       |                  | MT. KAND  |

| Tribe.   | Division. | Section.  | Subdivision. | Subsection.         | Village.          | District |
|----------|-----------|-----------|--------------|---------------------|-------------------|----------|
| KAKAR    |           | MEHTARZAI | ...          | ...                 | MEHTARZAI         | Do.      |
| "        | "         | "         | ...          | ...                 | BARGAI            | Do'f.    |
| "        | "         | "         | ...          | ...                 | TLARAI            | Do.      |
| "        | "         | "         | ...          | ...                 | SADOH             | Do.      |
| "        | "         | "         | ...          | ...                 | JA'FIR GOT        | GWA'L.   |
| "        | "         | "         | ...          | ...                 | SEAGHAR           | Ro'd R.  |
| "        | "         | "         | ...          | ...                 | ZAGAN KACH        | Gorge.   |
| "        | "         | "         | ...          | ...                 | AMADU'N           | Do.      |
| PA'NIZAI |           | "         | ...          | ADIZAI              | AMADU'N           | Mt. Pfl. |
| "        | "         | "         | ...          | "                   | GO'GAI            | Do.      |
| "        | "         | "         | ...          | "                   | RO'DGAI           | Do.      |
| "        | "         | "         | ...          | no subsection named | SHAMA'WAN         | Do'f.    |
| "        | "         | "         | ...          | ...                 | SA'GHAI           | Do.      |
| "        | "         | "         | ...          | ...                 | BALQZAI KA'RE'Z   | Do.      |
| "        | "         | "         | ...          | ...                 | KHA'NIZAI KA'RE'Z | Do.      |
| "        | "         | "         | ...          | ...                 | SHAKAR            | Do.      |
| "        | "         | "         | ...          | ...                 | GWA'L             | GWA'L.   |
| "        | "         | "         | ...          | ...                 | MANZAKAI          | Do.      |
| "        | "         | "         | ...          | ...                 | CHAUKU'L          | Do.      |
| "        | "         | "         | ...          | ...                 | BO'STA'N          | Do.      |
| "        | "         | "         | ...          | ...                 | WARIA KACH        | Ro'd R.  |
| "        | "         | "         | ...          | ...                 | BRAHIMA'N         | Gorge.   |
| BA'ZAI   |           | "         | ...          | ...                 | MURGHAI           | Mt. Pfl. |
| "        | "         | "         | ...          | ...                 | DILSHO'R          | Do'f.    |
| "        | "         | "         | ...          | ...                 | SAFKHA'N KA'RE'Z  | Do.      |
| "        | "         | "         | ...          | ...                 | NI'AI             | GWA'L.   |
| "        | "         | "         | ...          | ...                 | KARAM             | Do.      |
| "        | "         | "         | ...          | ...                 | AKHUNDA'DA GOT    | Do.      |
| "        | "         | "         | ...          | ...                 | KO'SH KACH        | Ro'd R.  |
| "        | "         | "         | ...          | ...                 |                   | Gorge.   |

|            |   |          |     |                  |            |
|------------|---|----------|-----|------------------|------------|
| K'ALAB     | " | SHAMUZAI | ... | T'AZI KACH       | Do.        |
|            | " | "        | ... | LU'R ANGA'NG     | Do'F.      |
|            | " | "        | ... | KU'Z ANGA'NG     | Do.        |
|            | " | "        | ... | ME'KHA'N         | Do.        |
|            | " | "        | ... | WOCHAKHLA        | Do.        |
|            | " | "        | ... | ISA'F KACH       | Do.        |
|            | " | "        | ... | WARGAI           | Do.        |
|            | " | "        | ... | SHUDAND          | Do.        |
| SURGARAI   | " | "        | ... | KHU'SHLA'K       | KHUSHLAK   |
| MALAGAI    | " | "        | ... | SHNA'KHORAI      | Ro'd R.    |
|            |   |          | ... |                  | Gorge.     |
|            |   |          | ... | KUDIN            | Do.        |
| ISA' KHE'L | " | "        | ... | TYARAI           | Do'F.      |
|            | " | "        | ... | KA'HAN           | Do.        |
|            | " | "        | ... | KSHO'I KA'RE'Z   | Do.        |
|            | " | "        | ... | WULGAI           | GWA'L.     |
|            | " | "        | ... | KHA'NAI          | Do.        |
| SARA'NGZAI | " | "        | ... | MULA'ZAI         | Ro'd R.    |
|            |   |          | ... |                  | Gorge.     |
|            | " | "        | ... | KUDIN            | Do.        |
|            | " | "        | ... | ADAK TANGAI      | Do.        |
|            | " | "        | ... | ZARGHU'N KA'RE'Z | Do'F.      |
|            | " | "        | ... | MOHAMMAD SHARIF  | Do.        |
|            | " | "        | ... | MO'SAI           | Do.        |
|            | " | "        | ... | SHAGA'L          | Ro'd R.    |
|            | " | "        | ... | SARA'NGZAI       | Gorge.     |
|            | " | "        | ... | SE'ZHANDAI       | Do.        |
|            |   |          | ... |                  | Mt. SPINS- |
|            |   |          | ... |                  | KHAR.      |
| ZAKHE'L    | " | "        | ... | ZARGHAI          | Do.        |
|            | " | "        | ... | KACH             | SHO'L.     |
|            | " | "        | ... | KWO'I            | SHE'RF.    |
|            | " | "        | ... | SHE'RF           | Do.        |

no subsection named

| Tribe.       | Division. | Section.     | Subdivision. | Subsection.         | Village.     | District.  |
|--------------|-----------|--------------|--------------|---------------------|--------------|------------|
| K'AKAR       |           | ZAKHPE'L     | ...          | NO'AZAI             | BAIA'YAI     | GHAZGAI    |
|              |           | "            | ...          | ...                 | GHRKHWA'     | Do.        |
|              |           | "            | ...          | no subsection named | GURMAI       | SHO'E.     |
|              |           | "            | ...          | ...                 | KURBI        | Do.        |
|              |           | "            | ...          | ...                 | SA'LA'EH     | Do.        |
|              |           | "            | ...          | ...                 | CHIMJA'N     | Do.        |
|              |           | "            | ...          | ...                 | DARGAI       | Do.        |
|              |           | "            | ...          | ...                 | CHINA'LI     | Do.        |
|              |           | DUMAR        | ...          | ...                 | RA'DINGZAI   | Mt. SPINS- |
|              |           | "            | ...          | ...                 | ...          | KHAR.      |
|              |           | "            | ...          | ...                 | O'BUSHTKAI   | SHO'E.     |
|              |           | "            | ...          | ...                 | SINZAWAI     | SMALAN.    |
|              |           | "            | ...          | ...                 | SMALAN       | Do.        |
|              |           | "            | ...          | ...                 | SHAKA'RE'Z   | Do.        |
|              |           | "            | ...          | ...                 | BAGHA'WA     | Do.        |
| UTMA'N KHE'L |           | "            | ...          | ...                 | NINGA'ND     | GHAZGAI    |
|              |           | "            | ...          | ...                 | ALAM BA'GH   | Do.        |
|              |           | "            | ...          | ...                 | NUMA'RA'     | Do.        |
|              |           | "            | ...          | ...                 | SARAI ZANGAL | Do.        |
|              |           | "            | ...          | ...                 | GHURAF       | Do.        |
|              |           | "            | ...          | ...                 | BAKMA'       | ZHO'E.     |
|              |           | "            | ...          | ...                 | SAGAR        | BO'RAI     |
|              |           | "            | ...          | ...                 | LABHTAI      | Do.        |
|              |           | "            | ...          | ...                 | JALKA'RE'Z   | Do.        |
|              |           | "            | ...          | ...                 | SHAKA'RE'Z   | Do.        |
|              |           | "            | ...          | ...                 | RO'DLI'N     | Do.        |
|              |           | "            | ...          | ...                 | ARBASIN      | Do.        |
|              |           | "            | ...          | ...                 | KO'T         | Do.        |
|              |           | SANDAR KHE'L | ...          | ...                 | ALI'ZAI      | Do.        |
|              |           | "            | ...          | ...                 | WARIA'GAI    | Do.        |
| "            | ...       | ...          | KHANKAI      | Do.                 |              |            |
| "            | ...       | ...          | ZANGIWA'L    | Do.                 |              |            |



| Tribe. | Division. | Section.   | Subdivision. | Subsection.         | Village.             | District. |
|--------|-----------|------------|--------------|---------------------|----------------------|-----------|
|        | LU'NI     |            | ...          | ...                 | LASHKAR KHA'N        | Do.       |
|        | KHE'L     | none named | ...          | ...                 | LU'NI                | Do.       |
|        | "         | "          | ...          | ...                 | NU'E KHA'N           | Do.       |
|        | "         | "          | ...          | ...                 | ALAB                 | Do.       |
|        | "         | "          | ...          | ...                 | SHAUGWA'L            | Do.       |
|        | "         | "          | ...          | ...                 | SOBA'T               | Do.       |
|        | "         | "          | ...          | ...                 | CHI'NAI              | Do.       |
|        | "         | "          | ...          | ...                 | MISEI'               | Do.       |
|        | "         | "          | ...          | ...                 | SAMANDAR KHA'N       | Do.       |
|        | "         | "          | ...          | ...                 | SABA'GH'             | Do.       |
|        | "         | "          | ...          | ...                 | KARBE'LAI            | PISHIN.   |
| ?      | SAYAD     | KARBE'LA   | ...          | GANGALZAI           | SHA'H DA'D           | Do.       |
|        |           | SAYAD      | ...          | BAGARZAI            | SAYAD PAIYO          | Do.       |
|        | "         | "          | ...          | "                   | SAYAD ALAB           | Do.       |
|        | "         | "          | ...          | AJARZAI             | AJARZAI              | Do.       |
|        | "         | "          | ...          | SHA'DI'ZAI          | SHA'DI'ZAI           | Do.       |
|        | "         | "          | ...          | BRHAMZAI            | SAYAD LA'L           | Do.       |
|        | "         | "          | ...          | "                   | SAYAD KHAMA'NDAI     | Do.       |
|        | "         | "          | ...          | "                   | SAYAD DO'ST MOHAM-   | Do.       |
|        | "         | "          | ...          | "                   | MAD                  | Do.       |
|        | "         | "          | ...          | HAIARZAI            | HAIARZAI             | Do.       |
|        | "         | "          | ...          | YA'SINGZAI          | SAYAD TO'TI          | Do.       |
|        | "         | "          | ...          | "                   | SAYAD SHE'RBAT       | Do.       |
|        | "         | "          | ...          | URUMZAI             | SAYAD SA'LO          | Do.       |
|        | "         | "          | ...          | no subsection named | SAYAD MU'LLA ALLA'H. | Do.       |
|        | "         | "          | ...          | "                   | DAD                  | Do.       |
|        | "         | "          | ...          | "                   | SAYAD PAIND          | Do.       |
|        | "         | "          | ...          | "                   | HAI'ZI'              | Do.       |
|        | "         | "          | ...          | "                   | TUKHE'L              | Do.       |
|        | "         | "          | ...          | "                   | SHAGH'N              | RO'D R.   |
|        | "         | "          | ...          | "                   |                      | Gorge.    |

IV. *Polity.*

The portion of Afghánistán along the route may be divided into that formerly subject to the Amír of Kábul, and that acknowledging no superior authority, into, in fact, the Amír's Territory and the country of Independent Tribes. The Amír's power never seems to have extended beyond the Do'f Valley to the eastwards further than ISAF KACH, or further north in that direction than Mt. KAND, *i. e.*, the inhabitants of the ZHO'B Valley and all the country south of it eastwards of the Do'f Valley have never recognised him as their ruler. The tribes then under the Amír's sway were the Durá-nis, the Tór Taríns and such Kákars as inhabited the Do'f and GwÁL Valleys, while the bulk of the Kákars, the Lúnis, the Zarkháns and the Spín Taríns have always been independent. For the purposes of this paper the country will be divided into Amír's Territory and YA'GHISTA'N or Independent Territory.

Under the Amír, Government in our sense of the term there was none, though the head of the Government nominally ruled through his Sirdárs or heads of tribes and sections, having, however, little real control over them. And how this system was worked has been thus described.\* "The Sovereign is absolute and makes any and every change which may appear to him necessary or proper in the government and administration. He can dispose of the lives and property of his subjects and is kept within certain bounds in these respects only by the calculations which prudence dictates. Religion is the counterpoise to his authority. This gives the clergy great influence, one that he might try in vain to subject to his will and pleasure, and vainer still would be the attempt to infringe and invade the rights and privileges of the sirdárs or chiefs of tribes, who would never consent to resign a certain influence in the affairs of government. It may be said in Afghánistán that there are as many sovereigns as sirdárs, for each of them governs after his own fashion. They are jealous, turbulent and ambitious, and the sovereign can restrain and keep them in some order only by taking advantage of their rivalry and feuds and opposing one to the other. There is no unity, nothing is permanent, everything depends on the pleasure or caprice of a number of despots always at variance with each other and making their tribes espouse their personal quarrels. A constant feeling of irascibility is the result which finally leads to sanguinary civil wars and throws the country into a state of anarchy and perpetual confusion. The sirdárs are at one and the same time the strength and the curse of the monarch. Prompt to take arms and defend him when a good understanding between them exists, they are as ready to revolt against him when they find or think they have the smallest interest in doing so. In anything,

\* Macgregor's Gazetteer.

however, to which they are disinclined, they would not obey even the sovereign of their choice but with reluctance; moreover they are always impatient to see him replaced by another from whom they hope to obtain greater advantages. Each subdivision of a tribe is, according to its numerical force and extent of territory, commanded by one or more sirdárs. These chiefs may be compared to the dukes and barons of the middle ages in France, the more powerful to the knights bannerets, and those having authority over only a few families to the esquires who in time of war enrol themselves and their men under the orders of the chief that inspires them with the greatest confidence and can pay them best.\* The most powerful amongst them are caressed by the sovereign who attaches them to his interests much more by the concessions he makes than by the fear he inspires. Ordinarily and with a view to preserve a nominal authority over them, he remits the whole of the taxes and imposes in their stead the obligation to furnish a contingent of troops in the event of war being declared against him by his neighbours. This wretched system gives too much power to the Sirdárs. The sovereign is at their mercy, and it is the ambition of these men that gives birth to the numerous civil wars in Afghánistán; for they are constantly in revolt."

Such being the state of civil government in the Amír's Territory, the only difference to be observed in the Independent Territory is, that the local Sirdár, or whatever other local chief happens at the time to be the most powerful, is absolutely uncontrolled even by the semblance of superior power. The above-mentioned independence of the Sirdárs and their impatience of superior control is to be observed in numerous instances even in the Kháns or rulers of villages, being of course more pronounced in YA'GHISTA'N than in the Pishin and other portions of the Amír's Territory. To give an example. In the Pishin the ruins of a village called SAYAD SA'LO or URUMZAI were passed. It had been but recently destroyed by a more powerful neighbouring village called SAYAD PAIND in a quarrel between the two Kháns. The URUMZAIS had to fly altogether out of Afghán Territory across the Belo'ch Border to KHU'SHILÁ'K where they settled. They appear to have been hunted across the Border by the other village without any attempt at interference on the part of the neighbours. Again not far from this last were two villages, Old and New MA'LIKYA'R, the old village having been deserted on account of an internal dispute and a new site selected a few miles off. The same thing was to be observed at a place called WARIA'GAI in the BO'BAI valley, where an evidently lately ruined village called Old WARIA'GAI was passed. I was informed it had become so about five years before on account of an internal squabble. Like the

\* The very remarkable parallel to be observed politically between the Afgháns and the Mainotes of Greece I have elsewhere pointed out. J. U. S. I. of India, 1880.



Barons of European feudal times these village Kháns seem to exercise the right of private war on their neighbours without control or interference. Certain villages have acquired an evil name for this kind of truculence. KACH in the SHO'R valley is such a village. Nor is a fight or quarrel always a necessary reason for a change of site, any caprice or change of owners is sufficient. A case in point is the fort of HA'JÍ KHA'N (AMAND KHE'L) in the Pishin. And towards the Border by the HAN Pass, in the long stretch of disputed land about the passes, ruined villages are naturally to be seen in the more exposed parts of the LU'NI KHE'L, ZARKHA'N and SPÍN TABÍN country on the Afghán side and in BA'EKHO'M on the Beloch side, the result of endless border raids. The lawlessness of the GHILZAIS along the roads between Kandahár and Kábul has been noticed by former travellers, one of whom has written :\* "Every man distrusts his neighbour or is at open feud with him. It is the custom of the country to throw a heap of stones over murdered travellers, and in the ravine leading from SHILGAR to ZURMAT (Ghilzai country) the frequency of these heaps is sickening. In many cases they are to be found at the closed end of the ravines showing how the poor travellers have run as far as possible and then been cut down." The same may be remarked of almost any part of the Kákar country, and in that portion about Mts. MA'ZHWÖ and SPINSKHAR where the heights are crossed between the USH and NANGALU'NA Passes, there is a long narrow valley between low hills to be crossed, and in this it is hardly any exaggeration to say that these heaps may be seen but a few yards apart. The reason appears to be that persons going from the SHO'R and BO'RAI Valleys or the DUMAR country from the south towards the Pishin must pass this way through a country which is for some thirty miles utterly uninhabited. In the wild uninhabited border tract about the HAN, HANOKAI and TRÍKH KURAM passes they may be seen in clusters in many places telling of some fights either among the local tribes themselves or with the Belóchia.

The mutual distrust among the tribes and even sections inhabiting different districts is so great as to result in an almost absolute ignorance of each other. They appear to have a real fear of going into each other's country and invariably give one another a bad character. Thus KA'KARS are an abomination to TABÍNS and ACHAKZAIS and LU'NIS to KA'KARS, while the wretched ZARKHA'N is harried on all sides. The ISA' KHE'L Kákars and the inhabitants of the GWA'L valley manifested an extraordinary fear of the PA'NÍZAI Kákars of the hills to the east of them. SANDAR KHE'L Kákars could not be induced to venture into the neighbouring LUNÍ territory and I did not personally meet a man who had been towards GHAZNI by the TO'BA Plateau or along the Tal Chótiáli Route. A guide

\* Macgregor's Gazetteer.

from the DO'F Balley an YSA' KHE'L, showed the liveliest anxiety to get back again from ISPIRA RA'GHA and would not venture into the ZAKHPE'L Territory and an old UTMA'N KHE'L guide told me he had never ventured beyond the territories of his section of the Kákars.

The structure of the houses in the more civilized parts, which in the hills consist of nothing more than rough mud and thatch, is a further proof of the general lawlessness of the population. In the GHAZGAI, BO'BAI and LU'NI Valleys, among the UTMA'N, SANDAR and LU'NI KHE'LS a house is nothing less than a fort round which, frequently within walls, is the cultivation necessary to support life, and when the crops are gathered they are stored in little round mud towers which I have shown elsewhere to contain just enough grain for one family for a year. In the DO'F Valley, however, I only saw one fort in a village called KHA'NIZAI KA'RE'Z and in the Pishin the villages were all open. Life in the Pishin among the TARINS and SAYADS seems to have been much more settled than elsewhere, but the ACHAKZAIS have a bad name as thieves and robbers.

Government among the Duránis differs considerably from that of the other tribes, noticeable chiefly in its regularity and order. Each section of the Duránis is governed by a sirdár and each subsection by a MALIK or MUSHIR. The principle is election qualified by hereditary claims, *i. e.*, the sirdár is elected from the chief family of the clan or section, and the malik from the chief family of the subsection. The sirdár has a deputy or naib always a near relative appointed by himself. Their occupation of the land is directly from the Amír on the condition of military service. Among themselves the Duránis do not as a rule resort to private revenge, hence internal blood-feuds do not exist among them as among other tribes. Their disputes are settled by the "JIRGA" backed up by the sirdár, by the interposition of the elders, by friends of the parties, by the priests (MULLAS), or by the civil and ecclesiastical judges (KA'ZI'S). The ACHAKZAIS, the section of the Duránis met with en route, are the wildest of those inhabiting South Afghánistán and are entirely a nomad race, hardly ever living in a house. They inhabit the TO'BA Plateau and during the summer roam over it with their flocks and spread themselves over the lower slopes of the KHO'JA AMRA'N Range about the KADANEI and Pishin Valleys during the winter, where their black tents or KIZHDAIS are to be seen everywhere. Their Sirdár is at present MÍR ASLAM KHA'N, son of MÍR ABDULLA KHA'N who built the well known fort or village of that name at the Pishin entrance of the KHO'JAK Pass.

The Kákars and Independent Paṭháns do not apparently recognise any particular sirdár or chief, and probably any man rules who has the requisite force of character, though birth, on which an Afghán always sets such an extravagant value, is pretty sure to exercise considerable weight in

the selection of a ruler. Thus SAMANDAR KHA'N of the LU'NIS, now their leader, is the son or near relative of PAIND KHA'N their late ruler. SHA'H JEHAN of KHASNO'B (ZHO'B valley) is a great man among the KÁKARS and GWARAT KHA'N among the SANDAR KHE'L.

#### V. *Civilization.*

As regards civilization, except as to dress, methods of cultivation and dwellings, but little could be observed in such a hurried journey as mine.

On the first point there is little to be noticed beyond what has been already written about it by the authors of the following:\* "The Afgháns wear their clothes long. They consist of two large very ample robes and are either of cotton or a cloth made of camel's hair† called BAREK: this is the dress of the people. The only difference in the garments of the rich is the material, which is silk, cloth or Kashmír. In summer they are made without lining, but in winter they are wadded with cotton or lined with fur. The under-garment is confined by a piece of muslin or long-cloth which is wound round the body. The outside one, and sometimes a third robe, is used as a cloak, and a person would be considered as wanting in politeness if on visiting a superior he did not put it on. The shirt is very full and the sleeves which reach below the hands particularly so.‡ The former is open to the sides from the neck to the waist and falls over the trousers, and these which are excessively large, open at the foot and are drawn in at the waist with a string. The head is covered by an enormous blue or white turban and the feet with slippers without quarters. The upper classes are for the most part simply dressed and consider luxury in this respect as enervating, but some young chiefs have their robes embroidered with gold thread and ornamented with gold lace. This is done in the harems by the women who excel in this kind of work, particularly in Kandahár. The Afgháns are not careful of their clothes and soil them the very first day they are put on, for they squat on the ground without taking the least thought whether the spot on which they sit is clean or dirty. They never change their garments, not even the shirt, until they are completely worn out, and as they rarely wash themselves they are constantly covered with vermin great and small."

In the matter of dress excepting the Achakzais, the Duránis show as usual a considerable superiority over the other tribes. The following was found to be a fairly true description of their dress.§ "The Duránis about

\* Macgregor's Gazetteer.

† A thick white material like felt for the outer cloak is common about Kandahár and the Pishin, and to this is often added a "póshtín" or coat of skin with the hair turned inwards.

‡ The cloaks about Kandahár and all over the South have frequently long false sleeves reaching nearly to the ground.

§ Macgregor's Gazetteer.

towns, most of those in villages and all those of the shepherds who are in easy circumstances wear a dress nearly resembling that of Persia, which though not very convenient is remarkably decorous and with the addition of a beard gives an appearance of gravity and respectability to the lowest of the common people. The poorer Duránis, particularly among the shepherds, wear a wide skirt and mantle. The poor only change their clothes on Fridays and often only every other Friday, but they bathe once a week at least, and their prayers require them to wash their faces, beards and hands and arms many times in the course of the day. The little Kháns all over the country wear the Persian dress. Their coats are made of silk, satin, and a mixture of silk and cotton called GARMST, and sometimes of brocade, and they all wear shawl girdles and a shawl round their caps. Their cloaks also are of broadcloth often red or of silk of different colours." To the Achakzais the above remarks hardly apply except in a very general way. Their manner of dress is the same, but they seldom or never change their clothes as long as they last, and consequently go about in filthy rags often half tumbling off them. They are in dress as in everything else the most uncouth and uncivilized of the great clan to which they belong.

With regard to the Sayads, Taríns and Kákars, etc. met with en route there is little to be remarked except that they all wore the unmistakable Afghán dress. In the more civilized valleys as the Pishin, Dóf, Gwál, Ghazgai and the Bórai the dress was better and more respectable answering to the above given description of the Duráni dress.\* But in the hill districts especially in the elevated region about Mt. MÁZHŌ the dress merely appeared to be a collection of dirty rags, the remains of what was originally the national costume. The PÁNÍZAIS, MEHTARZAIS, SARÁNGZAIS, AMAND and SULIMÁN KHE'LS, DUMARS and ZAKHE'LS among the Kákars bear off the palm for dirt and squalor. The ISÁ, UTMÁN and SANDAR KHE'LS are much cleaner and neater in appearance and altogether better dressed. The LU'NIS and ZARKHÁNS met with wore the dirtier and more ragged class of dress, but with the exception of the SANDAR KHE'LS Kákars the Pishin Sayads were the best-dressed people I recollect to have seen on the road.

The dwellings were found to differ considerably in different parts of the route. Those about the Pishin and Dóf valleys were apparently constructed on the same principles, whether Sayad, Tarín, Achakzai or Kákar. Tribe indeed does not apparently affect the construction of dwellings so much as locality.

The most noticeable construction of hut is that to be found every-

\* Among the Sayads it was to be observed that the articles of dress were not homespun but of foreign manufacture, obtained probably during their many visits to Hindustán.

where to the west of the KHÓJA AMRÁN Range. These are square dwellings of mud (kachchá) bricks about 20 feet by 12 feet and some 6 to 8 feet high surmounted by one or more small domes. In this method of construction wood is not required for the roof, a great consideration in a treeless country like South Afghánistan (*vide* fig. 1). But the hut of the Pishin Valley and neighbourhood has a sloped roof (fig. 2) supported on strong rafters, thatched and finally covered with mud. This roof is by far the most valuable part of the structure, and during their numerous migrations they carry away the wood-work to be set up in the new site. The usual measurements of such a hut are roughly: length 18 feet, breadth 6 feet, height of wall 6 feet and of roof 10 feet. They have no windows but usually three small holes at either end for air and smoke. A hut generally stands in a small yard surrounded by a rough stone or mud wall and sometimes there are two or three huts in the same enclosure.

As the mountainous regions between the Pishin and Shor Valleys are approached, the huts become much rougher though constructed on the same principles. They are irregular structures of mud over foundation walls of large unhewn and uncemented stones from the nearest stream or hill-side, and frequently also the back wall is the hill-side itself. The roof as before is of thatch covered with mud. There is also often a small window hole and the door frequently stands out from the roof on the principle of a dormer window (fig. 5). The general dimensions are height 10 to 12 feet, height of rough stone-work 3 feet, of mud wall 1 to 2 feet, length 10 to 12 feet.

Up in the mountains and in the upper gorge of the R. Ro'd the dwellings degenerate into a mere irregular thatch of leaves and brushwood of a pyramidal or conical form supported by a centre pole and having a door or entrance at one side. Frequently a hole is scooped out from the hill-side and thatched in, so as to form a rough kind of hut or dwelling. These conical huts measure generally: height 10 feet, diameter at base 10 feet (*vide* fig. 4).

On reaching the lower lands about O'BUSHTKAI, KHWÁRA and CHIMJÁN, a hut very similar in appearance to that of the lower Ro'd Gorge is to be seen, the roof of which is irregular and of thatch covered with mud and supported on irregular rough stone walls cemented, so to speak, with mud. There is usually no gap for a window (*vide* fig. 8). The measurements are: length about 12 feet, height of wall 3 feet, total height 8 feet.

In the mountainous tract between the SHO'B and ZHO'B valleys the huts are very wretched and have the appearance of being of a temporary character. The floor is scooped out of the ground on the hill-side so as to save a back-wall, and a wall about 3 feet high is built up on three sides

surmounted by the usual mud-and-thatch roof. The interior height is about 6 feet and the length some 10 or 12 feet, breadth 6 feet.

But on reaching the GHAZGAI and BO'BAI Valleys, *i. e.*, the territories of the UTMÁN and SANDAR KHE'L Kákars, a notable difference in dwelling structure is observable. The houses, rather than huts, now to be seen are of mud, as in Belochistán, Sind and the Panjáb.\* In the GHAZGAI Valley they are all fortified after the fashion of these people, having frequently a look-out tower, which is sometimes square but generally circular, attached to them. The body of the building has the sloped thatch-and-mud roof of the Pishin valley. The entrances or doors are very low, being only 3 feet or so in height; the tower has also a separate entrance of a similar construction, and round the top of it is a row of loop-holes. The usual dimensions are: height of wall 4 feet, of hut 8 feet, of tower 12 feet, base of tower 6 feet square (diameter, if round, 6 feet), length of hut 16 feet (*vide* fig. 9).

In the BO'BAI and LU'NI Valleys were the best dwellings (figs. 10, 11, 13) I saw outside Kandahár in all S. Afghánistán, and I can hardly do better regarding them than repeat what I have elsewhere said.† “They are no longer huts, but have become houses with dimensions varying considerably; fig. 10 represents one of the smaller ones. They are built entirely of mud with flat roofs from which the water is carried by projecting spouts. They are generally fortified and have towers attached and usually only one door. Fig. 11 represents one of these fortified houses. The bulk of the houses, however, in the BO'BAI Valley are much larger than those above mentioned, and may be described as fortified structures of mud, surrounded by a mud wall some 12 feet high and covering sometimes nearly an acre of ground (*vide* fig. 13). They have usually several towers attached and one door; within the outer wall are a quantity of fruit trees, and the house probably contains a whole family. Generally also there is a low 3 foot mud wall extending round the fields belonging to the house probably for their protection. Three or four such houses often constitute a village. The fortifications of an UTMÁN KHE'L village are often supplemented by a small regular square mud fort or redoubt with corner towers. Forts of a similar description are also to be observed about the SANDAR KHE'L and LU'NI Territory, where the villages are generally a straggling collection of

\* In the Panjáb the walls of such a house (*kachhá makán*) are built simply of wet mud (*gónḍhá*) without foundation (*bunyád*), then smoothed over with liquid mud (*kaigal*) and finally covered with a wash of cowdung and mud (*góbrí*) and often also with whitewash (*suféđí*) or a coloured lime-wash (*rang*). The roof (*chhat*) is of rafters (*kharí*) covered with a light reed thatch (*sirkí*), plastered over with mud or earth (*mitḥhí*) and cowdung (*góbrí*).

† J. R. G. S., 1880.

the large fortified houses above described. They have a well-built, substantial and prosperous appearance not often seen in the East. Sometimes a MALIK or petty chief will build himself a fort apparently as much for show as anything else. CHINÁ KO'T in the BO'RAI valley (fig. 14) is such a fort. The main interest in it is that it is quite new, not more than 20 years old, and so is a specimen of the modern method of KÁKAR fortification. It is on a small isolated hillock rising out of the valley, and is constructed as usual of mud on a rough stone foundation. The owner is one MALIK SANDÍ, an ALÍZAI SANDAR KHE'L. The approach is by a causeway of very rough construction, and it is entered as usual by a single door so situated as to be easily commanded. The whole structure covers about an acre of ground".

The nomadic habits of the Duránis and especially of the Achakzai section of that tribe have been frequently noticed by former writers. Among the Kákars, too, are found several nomad sections, such as the SULIMÁN and AMAND KHE'LS of the Pishin and the bulk of the PÁNIZAIS, DUMARS, and ZAKHPE'LS; even the more fixed and agricultural sections of the Kákars, as the SANDAR and UTMÁN KHE'LS, and the LU'NIS have the nomadic instinct strong in them and spend all the hotter weather roaming with their flocks in the neighbouring hills. By far the greater part of the ACHAKZAIS have no fixed abode, but live in a curious kind of hut called a KIZHDAI, which has been thought peculiar to the Duránis, but as far as I could ascertain, it is common to all the nomad sections whether DURÁNI or KÁKAR. The KIZHDAI is a structure of bent willow rods or withies covered over with black felt-like blankets and sometimes with black matting (*vide* fig. 3). There are generally four or five of these willow supports in a row over which the covering is stretched. I saw one in the course of construction near ALÍZAI in the Pishin and the method of putting up the supports is that shown in fig. 15. The Kizhdais are very warm in winter and can be made, by opening out the sides, cool and pleasant in summer, and are also, from the closeness of the strands of the covering which swell with moisture, impervious to rain. They have for a nomad race the advantage of being as easily moved as an ordinary tent. In several Kizhdais of a permanent kind near villages I saw a regularly railed in space in the middle for goats and sheep. The usual dimensions are: height 4 feet, length 12 feet, opening or doorway 3 feet by 3 feet.

There are two other kinds of structure which are interesting in this connection. In the BO'RAI valley the SANDAR KHE'LS build small circular mud towers of peculiar make (*vide* fig. 12), raised on piles about 2 feet from the ground, in which they store grain containing as I have elsewhere shown\* about enough for five persons for one year. BHUSA (chaff or chop-

\* J. R. G. S., 1880.

ped straw for fodder) is kept in round mud-covered heaps containing about 100 to 200 maunds, as are turnips etc. in England for the winter. Grain of all sorts is also stored in sacks weighing about 100 seers, which are kept in the huts and sometimes buried in some place known only to the owner to save them from the rapacity of the numerous hangers-on of the Sirdárs or of the Amír.

Secondly, *ÁSTÁS* or watermills are noticeable objects everywhere. Their general features have been frequently before described, as they are common to Afghánistán, Persia and Turkistán, and the following from MacGregor will answer the internal description of them all: "The wheel is horizontal and the feathers are disposed obliquely so as to resemble the wheel of a smoke-jack. It is within the mill and immediately below the mill-stone, which turns on the same spindle with the wheel. The water is introduced into the mill by a trough so as to fall on the wheel. The wheel itself is not more than 4 feet in diameter."\* Externally they have always the appearance of the ordinary habitations round them, whatever the prevailing construction may be. They are to be found along the line of a *KU'L* or of a natural running stream, and often, to give the water greater power, a portion of the stream will be banked up for some distance before it reaches the mill (fig. 4). The roof is usually on a level with the banks of the stream. In places, as at *ALÍZAI* in the Pishin, long lines of *ÁSTÁS* and embankments are to be seen along the same stream (fig. 17).

There is little to be remarked under the head of cultivation beyond a notice of such methods of irrigation, etc., as came prominently under observation, for my journey was of too hurried a nature to admit of any investigation. In irrigation considerable skill is everywhere evinced in S. Afghánistán, especially in the direction of *KU'LS* or artificial water-courses, of *KÁRE'ZES* or underground water-courses, and of groins and river dams. Wells are not seemingly in use for cultivation as in the Panjáb and Persia. The *KU'L* is well-known in all the northern districts of India and there is little to be added here, except to notice the general prevalence of this style of irrigation in S. Afghánistán, where along the *TARNAK* Valley it is used to such an extent as to dry up and disperse the water of the river: a state of things also noticeable along the rivers running towards the Indus and the *KACHÍ* Plain of Belúchistán. The entire flow of many mountain streams is frequently thus utilised, and great skill is often to be observed in the preservation of the levels; and in one place in the *BO'RAI* Valley I observed a *KU'L* carried under the stony bed of the *R. TO'R KHAIZÉ* by a rough but practicable syphon.

\* Such watermills are common enough in the Himalayan districts, and I have in my possession a wooden bowl turned by a lathe worked by a water-wheel in a remote valley in *KU'LU'*.



The KÁRÉ'Z has been frequently noticed by travellers in Central Asia beginning with Marco Polo, who, according to Ramusio's version, writes about "the wearisome and desert road in KERMÁN (KIRMÁN)", that\* "after those days of desert you arrive at a stream of fresh water running underground, but along which there are holes broken in here and there, perhaps undermined by the stream, at which you can get sight of it. It has an abundant supply and travellers worn with the hardships of the desert here rest and refresh themselves and their hearts." Col. Yule remarks on this (p. 116) "the underground stream was probably a subterranean canal (called KANÁT and KÁRÉ'Z) such as is common in Persia, often conducted from a great distance. Here it may have been a relic of abandoned cultivation". Khanikoff on the road between KIRMÁN and YEZD, not far west of that which I suppose Marco to be travelling, says: "At the fifteen inhabited spots marked on the map they have water which has been brought from a great distance and at considerable cost by means of subterranean galleries to which you descend by large and deep wells. Although the water flows at some depth its course is marked upon the surface by a line of more abundant vegetation." Elphinstone says he has heard of such subterranean conduits 86 miles in length." MacGregor describes the construction of a KÁRÉ'Z thus: "a shaft 5 or 6 feet in depth is sunk at the spot where the stream is to issue on the surface, and at regular intervals of from 20 to 50 or more paces in the direction of the hill, whence it has been previously ascertained that a supply of water will be obtained, other shafts are sunk and the bottoms of all connected together by slightly sloping tunnels. The depth of the shafts increases with their distance from the original according to the slope of the ground. Their number and the length of the KÁRÉ'Z depends on the supply of water met with, the quantity required and the distance of the habitable or cultivable spot. The position of the shafts is marked by circular heaps of earth on the surface and their orifices are usually closed, the covering being removed at intervals of a year or more for the purpose of cleaning and repairing the shafts and tunnels. Much experience is required to select a spot from which a plentiful and lasting supply will be obtained. Some KÁRÉ'ZES afford a constant supply of water for ages whilst others become exhausted before they have paid for the cost of construction." To this I may add the advantage of the KÁRÉ'Z is the prevention of the rapid evaporation the water would undergo in such a climate if freely exposed to the air. KÁRÉ'ZES are frequently very deep, 40 feet and more below the surface. Judging from one seen under construction in the Pishin, the shafts or wells are sunk as usual with pick and shovel and with crate and windlass, and the water-passage tunnelled out afterwards. One cause of the per-

\* Yule's Marco Polo I, 116.

manent drying up of KÁREZES is the shifting of the subterranean water lodgment, and it is not uncommon to see parallel lines of KÁRE'Z wells close to each other. KÁRE'Z digging is a special occupation, the GHILZAIS being famous for it.

The system of irrigation by tanks or open reservoirs so successfully used in MAISU'É and many parts of the Madras Presidency is only sparingly used in Afghánistán, and I only observed a few small irrigation tanks in the Pishin and KADANEI Valleys, though from the universal presence of uneven country in Afghánistán it would appear that the MAISU'É system of *bands* and tanks should succeed as a means of irrigation if regularly introduced.

The method of irrigation by means of groins and reclamation of river-beds to be observed in the high lands along the valley of the R. RO'D and in the SHO'É Valley in the neighbourhood of CHIMJÁN is very remarkable. These groins are constructed at a great cost of labour with rough stones and tree trunks and are frequently turfed over and planted with willows and small bushes. In the RO'D Gorge the main portion of the cultivable land has been obtained in this way.

There is one more point to be noticed in this connection. Elphinstone states (Kingdom of KÁbul) that it seems to be only in the very poorest parts of the country that land is allowed to lie fallow for a year. This, however, is apparently not the case in the KÁkar Country generally, especially in the BO'ÉAI Valley, where the large area under cultivation is only to be accounted for by a large portion of it being allowed to lie fallow every year.

Madder, which, as MacGregor observes, is common in the west of Afghánistán and sold all over India by Patháns as MAJÍT or MANJÍT, is to be found in the DO'É Valley in highly cultivated lands deeply furrowed and manured. The leaves are used for cattle and the roots for the dye. This cultivation is elaborate, good and costly, and the yield in the DO'É Valley is said to be worth Rs. 1000. The people there believe apparently that it is not grown elsewhere; it is, however, to be seen about TAKHT-I-PU'L near Kandahár.

Graveyards deserve mention in this place. These are to be found scattered over the land in places quite remote from population. In fact the dead are frequently carried to long distances from their place of decease in order to be buried at a particular spot. This system of carrying the dead to certain places belonging to the family is prevalent among the Panjáb Muhammadans, the YU'SUFZAIS and other such Patháns as inhabit British Territory. I saw the body of a SUBAHDÁR of the 26th Panjáb Native Infantry who had died at Quetta being carried down the Bolán Pass to be buried in the Pesháwar District, and on the Panjáb Railways

there are special rates and arrangements for the carriage of corpses. On the other hand among the Patháns travellers and often the dead on a field of battle are buried where they die, and the GHILZAIS are always so buried. The reason given for conveying corpses to certain burial grounds is, that a Pathán should be buried by the tomb of the PÍR or Saint he followed in life, at whatever distance it may be. This accounts for graveyards on the summits of mountains, as on Mt. KHWÁJA AMRÁN in the GWÁJA Pass, and in the TRÍKH KURAM and PÁLKAI Passes miles away from habitations.\* I was told that parties on the road to and from a burial place were never molested. MacGregor† states with reference to the GHILZAIS that it is the custom of the country to throw a heap of stones over a murdered traveller and that the road leading from SHILGHAR to ZU'RMAT the frequency of these heaps is sickening, in many cases being found at the closed ends of ravines, showing that the poor travellers have run as far as possible and then been hewed down. The same remarks would be perfectly true of the long and narrow TÓPOBARGH Valley near Mt. MÁZHWŌ in the highlands separating the country of the ZAKHPÉ'LS and PÁNÍZAIS, a place particularly favourable for such murders, and the large number of such heaps as above described, sometimes three or four together, is horrible to contemplate. This method of forming cairns is common also in the Himalayan Districts, and I have seen GURKHÁS in passing these Pathán cairns throw stones on them from sheer habit.

The LU'NIS form little pillars of rough stones to mark the spots of victories over the Belúchis, and several such pillars (fig. 16) are to be found in the HAN Pass and about the Debatable Lands.

As might have been anticipated, of historical remains there are practically none. Indeed such could hardly be expected in a country which has no history to speak of, beyond petty internal squabbling, and no means of constructing buildings on any scale or of durable materials. In the Pishin there is an old ruined fort of the HÁRU'NS (TARÍNS) on a hill called SIRE' KHILA deserted about 60 years ago; and near SAMÁLZAI, not far from KHU'SHDIL KHÁN, a small artificial mound with some fortifications on it like those at Quetta, with which it has probably a similar origin. It is called SPÍN KHILA (White Fort) but has apparently no local history. The only distinctly historical traditions which the Kákars appear to have relate to NÁDIE SHÁH's time, *i. e.*, only a century back, and in the BO'RAI all

\* The ZAKKA KHE'LS, a wild troublesome tribe about the KHAIBAR, who have a bad name, are said to have stolen a saint from the YU'SUFZAIS and murdered him to obtain the PÍR round whose grave they bury their dead. Tradition says that they are such scoundrels, that no man among them could be found whom even they could reverence after death as a saint.

† Quoted above in the section on Polity.

remains are locally referred to him. In the centre of the Valley a fort of some size built on the same principle as that at Quetta, but not so high and much more extensive, is called **SHAHR-I-NÁDIR**. It is now deserted and considerably ruined. The principle on which these forts were built is a very sound one in such a country, as the most desirable position from which to watch a valley is from an eminence so situated that all parts of the valley are visible at once, and at the same time that an enemy advancing from the hills must show himself. As it is very seldom that such eminences are natural they had to be constructed where necessary. This is the governing principle in the selection of the sites of Quetta and Kandahár, in fact the attempt to build Kandahár alongside one of the apparently strongly situated hills near it failed as a military measure.

In the **BO'RAI** Valley and along the route thence, *viâ* the **HANUMBÁN**, **TRÍKH KUBAM** and **HAN** Passes, towards **BÁRKHO'M** a remarkable set of remains are found everywhere in the shape of large quantities of pieces of burnt bricks and pottery\* of a manufacture and excellence not now known in these parts. These are found in all kinds of places, on the hill tops, in the valleys and passes and alongside streams. The inhabitants say they are the remains of **NÁDIR SHÁH's** army, but as this was an old **KÁFILA** route, the present one *viâ* **MEKHTAE** being not far distant, it is as likely that the presence of the remains is due to this as to **NÁDIR SHÁH's** march in this direction; it is, however, more than likely that he and his successor **AHMAD SHÁH**, the first **DURÁNI** and hero of **PÁNÍPAT**, or portions of their forces made more than one march along this route.

The state of civilization varies considerably with the locality, the inhabitants of the valleys being of course more civilized than their hill neighbours. As has been above observed, the more hilly the country the more scarce and rough the dwellings become, a sure indication of the general civilization of the occupants. The **ZARKHÁNS** and among the **KÁKARS** the **DUMARS**, **ZAKHPE'LS**, **PÁNÍZAIS** and **AMAND KHE'LS** bear off the palm for wildness, and their civilization is merely nominal. The **UTMÁN** and **SANDAR KHE'LS** present a substantial, though rude, form of civilization of the patriarchal type, as shown in their buildings, their husbandry, their better class of wearing apparel and the quantity of food supply, much of it foreign, which they possess, and the same is true of the **LŪ'NI KHE'LS**. The **KÁKARS** of the **DO'F** and **GWÁL** Valleys resemble their Pishin neighbours in almost everything, even to their habit of visiting foreign countries, and many an **ISÁ KHEL** or **SHAMOZAI KÁKAR** is to be found, who has been in **Karáchi** and **Bombay** and even served as a sailor. In the Pishin there are many indications of a superior civilization, notably in the presence of

\* Several specimens were sent to this Society by the present writer with the Geological collection he made in the districts under discussion.

women and children in the villages passed by the army, the knowledge of Hindústání, which is there so frequent as to carry one anywhere through the valley, and the travelling habits of the people. These traits are more specially to be observed among the Pishin SAYADS, than among the TARÍNS, though many of these speak Hindústání fluently, as also can some of the DO'F and GWÁL Valley KÁKARS. Many of the so-called Patháns who travel to all parts of India and even to Burmah selling horses are Pishin Sayads, some of whom make it a yearly practice to do so, keeping regular agents at BANGALU'R (in MAISU'R) and other horse marts. When the field telegraph was first opened at GULISTÁN KÁBE'Z in the Pishin, all private messages had to be countersigned by the Political Agent, whose tent was besieged by applications for telegrams from the Sayads and Taríns, who sent messages to all parts of India, one being addressed to Kandy in Ceylon.

### VI. *Language.*

My observations under this head were the most unsatisfactory of all, as I was enabled to do little more than observe the variations in the pronunciation of place names.

The language spoken is PUSHTO\* in dialects not, however, differing so much from the standard Pushto of our army as to prevent the soldiers from being readily understood. Its most prominent feature, the excessive gutturalness, seen in such words as GHWAZH, UKHMUGHDAI, ZHIZHA TANGAI, is apparently such as is commonly to be found in the language, as also are the harsh cerebral *t*, *q* and *r*, so frequently heard all along the route. †

The next most important feature for the purposes of this paper is the interchange of consonants in place names. Those that came under observation are the following, some of which are doubtless due to local dialectic variation. ‡

#### *Changes of J.*

into *d* and *z*. NGÁNDEH = NGÁNJEH: SYÁJGAI = SYÁDGAI = SÁZDAI.

into *zh* and *y*. ZHO'B = JO'B = YO'B.

into *z*. ZAI (the termination) = ZO'I = JAI = JÍ.

into *sh*. KHÚSHLÁK = KHUJLÁK.

\* Or PUKHTO. KH (خ) and SH (ش) are convertible sounds in the language.

† This is especially the case in the Bo'RAI Valley and in the country approaching the Belóch Border. But this might be due to the propinquity of the Belóchhi dialects in which *t* and *q* are very hard.

‡ All such interchanges are valuable for comparing and identifying the names given by various authors to places along the same route.

*into ch.* KHUNCHAGAI = KHUNJAGAI.

*Changes of Z.*

*into d.* DARGAI = ZARGAI : MANZAKAI = MUNDAKAI : SANDAR  
KHE'L = SANZAR KHE'L,

*into ḡ.* TO'R KHAIZE' = TO'R KHAIDE'.

*into zh.* ZAWAB = ZHAWAB : ZADÚN = ZHADÚN.

*into g.* MULÁZAI = MALAGAI.

*Changes of R and Ṛ.*

*r into ṛ.* BO'RAI = BO'RAI : WARIÁGAI = WARIÁGAI.

*r and ṛ into ł.* MÚLTAT = MURTAT : KALA = KIRE' = KILE' :  
SHNAGÁL = SHNAGHAR = SHNAGHÁL.

*ṛ into ḡ.* KHWÁRA = KHWÁPA.

*ṛ into zh.* KIZHDAI = KIRDAL.

*Changes of D.*

*into g.* ANGÁND = NGÁNG = NIGÁND : STÁJGAI = STÁJDAL.

*Changes of G.*

*into k.* KO'T = GO'T.

*into gh.* SHNAGÁL = SHNAGHÁL : GHWAND = GUND : GHUNDAMARAI  
= GUNDAMARAI.

*into kh.* GWÁJA = KHWÁJA.

*Changes of KH.*

*into k.* KSHO'I KÁRE'Z = KHSHO'I KÁRE'Z.

*into gh.* IGHBAṚG = IKHBAṚG.

*Changes of F.*

*into v and b.* ISAF = ISAB = ISAV.

*Changes of B.*

*into p.* ALAB = ÁLIP.

*Changes of S.*

*into sh.* LASTAI = LASHTAI.

*Changes of TS.*

*into ch.* TSAMAULANG = CHAMÁLANG.

*Changes of V.*

*into w.* VATA'KRI = WATA'KARI.

Instances of the loss and addition of consonants are :

*of G.* PLA'NGZHARA = PLA'NZHARA.

*of D and G.* ANGA'ND = NIGA'N = NGA'NG.

*of R.* DUMAR = DUMA' : BAGHA'WA = BAGHAWAB.

*of K.* LASHTAI = LASHTKAI.

And instances of the transposition of syllables and consonants are :

*of B.* SURGHWAND = SBAGHA'ND.

*of Gh.* GHOBARGAI = OGHBARGAI : ZAGHLÚN = GHAZLÚN.

*of N.* ANGA'ND = NIGA'ND = INGA'ND.

From the above examples it will be observed that the most unstable consonants are *J, z, ZH, B, D, G, KH, F, B, S, TS,* and *v*, with their counterparts *SH, CH, ZH, K, GH, B,* and *w*.

Regarding consonantal interchanges peculiar to the Pushto language, Raverty (*Gram. Pushto*, p. 3) has noticed that *kh* (خ) is changed into *sh* (ش), *g* (گ) into *zh* (ژ), *ts* and *dz* into *ch* and *j*. And of the *KHAI-BARIS* he observes that they so transpose their letters as to be almost unintelligible. In his *Dict. of Pushto* (xxii) he further notices the interchange of *z* into *dz*.

Of vowel sounds I noticed as peculiar an *o* pronounced in several words as the close German *ö*, thus, *UZHDÖ, MA'ZHWÖ*. And also the common termination *ai* (written by Raverty *aei*) which is sounded with a closed mouth and sharply as one syllable, though it partakes of the nature of two; thus, *ai*. The frequent recurrence of this last gives the language an uncouth sound, and, coupled with the prevalence of guttural consonants, an unpleasant harshness to English ears.

The vowel changes are not important, the following being the most noticeable.

*Changes of A and A'.*

*a into i.* ANGÁND = INGÁND: KAZHDÁI = KIZHDÁI: KALA = KILÉ' = KIRÉ': TSAMAULANG = CHIMÁLANG: ALAB = ALIP.

*a into u.* MULÁZAI = MALAGAI: MANZAKAI = MUNDAKAI.

*a and á into au.* TSAMAULANG = CHIMALANG = CHIMÁLANG.

*Changes of AI.*

*into i and o'i.* ZAI = ZO'I = ZÍ: LÁKAI = LÁKÍ: BO'RAI = BO'RÍ: LÚNAI = LÚNÍ: DARGAI = DARGÍ.

*into a.* MANGAL = MAINGAL.

*Changes of U.*

*into o.* LÚNAI = LO'NAL.

*Changes of I.*

*into e.* ISAF = E'SAF.

*Changes of WA.*

*into au.* WARÍA = AURÍA.

*into u and au.* GHWAND = GUND: WARIÁGAI = URIÁGAI = AURIÁGAI.

*into á.* SURGHWAND = SURGHÁN.

*into o.* BAGHÁWA = BAGHÁO.

Among local peculiarities a tendency to shorten and nasalize long vowel syllables was frequently to be noticed, thus—

AMANDÚN for AMADÚN: ADINZAI for ADIZAI: BÁNZAI for BÁZAI: AJJÍ KHÁN for HAJÍ KHÁN: HANUMBAR = ANUBAR: ANGÁND and NINGÁND =

NIGÁ'N: BAHGÁ'WA = BAGHAWAR: and numerous other instances could be adduced.

The Persian silent w Raverty (Gram. Pushto 4) observes is always sounded in Pushto; thus خراب is pronounced KHWA'B, not KHA'B, خولن; is KHWA'N, not KHA'N. My observations in Kákar-land did not quite bear him out in this; for the following I found to be synonymous pronunciations. AKHUND and AKHWAND: ZARKHA'N and ZWARKHA'N: SURKHWA'B and SURKHA'B, (where the w is a gratuitous insertion, the word being SURKH + A'B, red water): SURGHWAND and SURGHA'N.

Before leaving the vowels a curious insertion of y in the following word is worthy of remark. CHO'TIA'LI is locally CHO'TA'LAY: ZAKHPYÉ'L and ZAKHPYE'L are synonymous and so are STA'JGAI and SA'ZGAL.

The following is a list of the various forms under which place names were found by myself and on which the foregoing observations are based.

1. ANGA'ND = NGA'NJEH, NIGA'NJEH, NIGÁ'N, INGAN, NINGÁ'N, NGA'NG, NIGA'ND, ANGAND, NGA'NDEH.\*
2. MUZARAI = MZARAI.
3. AJJÍ KHA'N = HA'JÍ KHA'N.
4. GWA'JA = KHWA'JA.
5. SKAN = ISKAN.
6. ZAI = JAI, JÍ, ZO'í. †
7. ZHO'B = JO'B, YO'B.
8. ISAF KACH = ISAB KACH, E'SAB KACH, E'SAF KACH, YÚSUF KACH. ‡
9. KHARZANGAI = KHABARZANGAI.
10. ALLA'HDA'D = KHA'LAKDA'D. §
11. KHÚSHLA'K = KHUJLA'K.
12. KIZHDAI = KIRDAI, KAZHDAI, KIZHDÍ. ||
13. KALA = KILE', KIRÉ', KO'R. ||
14. SURKHWA'B = SURKHA'B.
15. KHUNCHAGAI = KHUNJAGAI.
16. GO'T = KO'T, ||
17. KHSHO'Í KA'RE'Z = KSHO'Í KA'RE'Z.

\* JEH is for DEH, a village. These words represent the LúR ANGÁNG and KÚZ ANGÁNG of the map (Do'F Valley).

† To show pronunciations of ai: this is a termination not a word.

‡ These names arise from the confusion between ISAV and YÚSUF (Isau and Joseph).

§ These words have the same meaning, viz. God-given: there is a similarly named village near Kandahár.

|| These are not place names.



18. ZHAWAR = ZAWAR.
19. IGHARG = IKHARG.
20. AMADÚN = AMANDÚN.
21. ADIZAI = ADINEAL.
22. ZADÚN = ZHADÚN.
23. MANGAL = MAINGAL.
24. BA'ZAI = BA'NEAL.
25. SURGHWAND = SURGHA'N, SURGHA'ND, SRAGHA'ND, SURGHAN,  
SURGHAND, SRAGHAND.
26. SHNAGA'L = SHNAGHAR, SHNAGHAL, SHNAGAI, SHNA' KHORAI.
27. WARIA KACH = AURIA KACH.
28. WARGAI = BARGAL.
29. MULA'ZAI = MALAGAL.
30. ZAKHPÉ'L = ZAKHPYE'L = ZAKHWAL.
31. GHOBARGAI = OGHBARGAI.
32. DUMAR = DUMA'.
33. SYA'JGAI = SYA'DGÍ, SYA'DGAI, SA'ZAI, SYA'JDAL, SAZDAI.
34. KHWA'RA = KHWA'PA, KHWA'R.
35. ZAGHLÚN = GHAZLA'NA, GHAZLÚN.
36. DARGAI = ZARGAI, DARGÍ.
37. GHUNDAMARAI = GUNDAMARAL.
38. GHWAND = GUND.
39. PLA'NEHARA = PLA'NGEHARA.
40. SURMASTAILI = SURMASTA'LI.
41. BAIANAI = BIANÍ.
42. SANDAR KHE'L = SANZAR KHE'L.
43. TO'R KHAIZE' = TO'R KHAIDE'.
44. CHO'TIA'LI = CHO'TA'LAL.
45. BO'RI = BO'RAI, BO'RAL.
46. LASHTAI = LASTAI, LASHTKAI.
47. WARIA'GAI = WARIA'GAI, URIA'GAI, AURIA'GAL.
48. HANUMBA'R = ANUBA'R, ANUMBA'R, HANUBA'R.
49. MÚLTAT = MURTAT.
50. LÚNI = LO'NAI, LÚNAL.
51. LA'KAI = LA'KÍ.
52. TSAMAU LANG = CHIMALANG, CHAMALANG, CHAMAU LANG, CHA-  
MA'LANG, CHA'MALANG.
53. ALAB = ALIP.
54. SOBA'H = SOBA'T.
55. BAGHA'WA = BAGHA'O, BAGHAWWA'R.
56. VATA'KBI = WATA'KARI.
57. ZARKHA'N = ZWARKHÁN.

58. TO'R TSAPPAR = TO'R TSUPPRÍ.\*  
 59. PASTE' = PASTO'.  
 60. MANZAKAI = MUNDAKAI.

The frequent recurrence of certain names on the map leads to the supposition that many of them are merely descriptive and on examination the meanings of a great portion become apparent, the descriptive words having changed very little on becoming names of places.† And though it is always treading on dangerous ground to give derivations of place names, I think the following are worth hazarding :

1. TANGAI means a gorge or pass, so SPÍR TANGAI would be the White Gorge (SPÍR for SPÍN) and TÚR TANGAI the Black Gorge (TÚR for TO'R.)

2. GHUND is round, globular and the GHUND Peak would mean the Round Hill, and Mt. SURGHWAND the Red Round Hill. Again GHUNDA is a detached hill and GHUNDAMARAI is Adam's apple in the throat, and as applied to a village would mean the village by the round detached hill.

3. LWÁ'RA means hilly and as applied to a valley would signify the hilly or upland valley.

4. CHOR means a ravine or water furrow and is applied to a steep-banked stream in the Pishin.

5. SIBE' KHILA would be the Inn or Caravanserai Fort. It was the old rendezvous of the HÁRÚN TARÍNS in the Pishin. This is probably also the meaning of ZARA KHILA in the Pishin.

6. The GAZ Hills might mean the Long Hills from كز a yard-measure or the Tamarisk Hills from غز a tamarisk.

7. MZARAI means a particular kind of reed and is applied to a river, a valley, and some marshy springs and the hills near these last.

8. SURKHA'B is the Red River.

9. ZARGHÚN means green, verdant, fresh and is applied to a range of mountains covered with forest in the heights and to a village by a stream.

10. LÚR means Upper and KÚZ, Lower, when found in composition with place-names. Lo'WE' and Lo' mean Greater : KUCHNAI and KAUN, Lesser.

11. In MEHTARZAI, MEHTAR is Persian meaning "master, ruler." MEHTARZAI would mean the Ruling Clan.

12. GHWAZH means a sluice and also the ear, and is found applied to a stream and a range of the hills, the SPÍN GHWAZH, (?) the White Ear Hills. ZHWAZH means the murmuring of a brook and may be the deriva-

\* A corruption of KÁLF CHUPPRÍ the Belóch name for the same place with the same meaning, viz., Black Rock. Thus TRÍKH KURAM is called also So'R KURAM, which has the same meaning, Salt Springs.

† I do not here refer to such purely men's names as HABÍBULLAH, KHÚSHDL KHÁN, transferred to the villages owned by the persons of these names.

tion of the river name, whence perhaps also ZHIZHA TANGAI (?) the Rippling Pass.

13. Mt. KAND may derive its name from KAND a chasm or KANDAI broken ground.

14. Mt. PFL from its fancied resemblance to an elephant, PFL or FFL.

15. SHARAN KA'REZ and SHARAN occurring two or three times and once as SHE'RIN, are probably for SHIRIN, sweet.

16. SÜR or SURAI is red and is met with in several words. SURAI also means a passage and the so-called SURANA'BI Pass (the SURAI Pass of my maps) is for SURAI NARAI, the Slender Passage. Cf. also LA'NDAL SURAI (?) the Lower Passage. MO'MAND SARA'I (?) the Momand's Passage.

17. The word GHARG, as in OGHARG, IKHARG, IHARG and in the plural forms GHOBARGAI and OGHOBARGAI, occurs several times. It means the flat land between two hills, and upland valley: also double, two, twins. In which latter sense it is probably used when applied to hills. And hence also NARAIGHARG Hills may mean the Narrow Valley Hills.

18. RO'D means merely a river: RO'DBA'E, a valley stream.

19. KSHAI means in, between, etc. and KSHO'I KABEZ might mean the Middle Karez.

20. KHWARA is probably for KHWARA, a sandy stream-bed, as several such beds debouche into the SHOR valley at the spots so named.

21. SAGAR, SEAGHAR, SARGHAR, SURGHAR all common names mean the Red Hills (SUR + GHAR). So the SAGARBAND Pass would be the Red Hills Pass.

22. SURKAI ZANGAL is the Red Forest.

23. DARGAI, a very common name, is the plural of DARGA, a copse, a place where trees and brush-wood grow together. DARGA also means a shrine and this may account for its application to villages.

24. GURKHAI is applied to a mountain stream and its defile and may mean rattling, noisy, as GARKAI is the rolling of a carriage and GARKANPA a rolling stone from a mountain.

25. ZAWAR or ZHAWAR (ZAWAR) is a slope, declivity. LWAR ZWAR is uneven ground. ZHAWAR also means a deep or hollow place.

26. USH or UKH is the camel. The USH Pass means the Camel's Pass, and the UKHMUGHDAI Pass the Camel's Mouth Pass. (UKH + MAKH).

27. UZHDÖ, the name of a peak, is apparently the plural of UZHD, UZHD and UKD, long, lengthy, stretched out.

28. TSA'RU Peak = ? the Look-out Peak.

29. The MO'SAI Pass may derive its name from MO'SAI, a child's marble, a round stone, or from MO'ZI', troublesome.

30. KACH is the cultivation by a stream-bed and is seen not only by itself as a name for a stream, a village and a hill, but constantly in compo-

sition, as ISAF KACH, Esau's Plot, TA'ZI' KACH, Greyhound Plot, KO'SH KACH, Crooked Plot, WARIA KACH, the Free Plot, SÚR KACH, the Red Plot, ZAGAN KACH (?) the Rough Plot.

31. SHO'RA which constantly appears as a name is probably for SHO'RA or KHO'RA, saltpetre, nitre: a common property of the soil along the route. It appears again in SO'R KÚRAM, the Salt Springs.

32. SHNA' KHORAI occurring as a synonym for SHNAGHA'L, a village name, would mean a Mastic Eater.

33. TRI'KH is salt, bitter, and appears in TRIKHA'DAGH, the Salt Hill-side, if DA'GH is for TA'K, or the Salt Plain, if DA'GH is for DA'G: and in TRI'KH KÚRAM, the Salt Springs.

34. CHAPPAR or TSAPPAR, a corruption of Hind. CHHAPPAR a thatched roof appears as a hill name in Mt. CHAPPAR and in TO'R TSAPPAR, the Black Roof, a hill in the Han Pass. Both peaks have rounded tops. It is worth mentioning here that TSAPA means a wave, billow.

35. CHI'NAI is a common village name and is the plural of CHI'NA, a spring, fountain.

36. GHAR, a hill, appears in Mt. SPINSKHAR, the White Hill: SPÉ'RA-GHAR Hills, the Grey Hills: TANG GHAR, the Narrow Hills. ZHAR, appearing in several hill names, is probably for GHAR: ZHARPITAU Peak, the Sunny Peak, PLA'NZHARA Hills, the Broad Hills; ZHARUBAND Peak, Hills End, is given to the last hill of a line in the SHO'R Valley.

37. ISPIRA RA'GHA, the Open Meadow (SPARAI + RA'GH); the place is an open spot near Mt. MA'ZHWÖ. SPARAI, open, also turns up once or twice as SAPURAI.

38. Mt. SURLO' (?) the Red Tablet.

39. TANG TO'R Peak, the Narrow Black Peak.

40. SURTAK Peak, the Red Precipice.

41. MALE'WA Peak (?) The Camel Sack (MALAV).

42. LA'NDAL Peak, the Lower Peak.

43. PLA'N Springs, the Wide Springs.

44. KHÚNI' Hills, the Bloody Hills.

45. SHAKA'RE'Z (?) The Back Kárez and JALKA'RE'Z, the Thorn Kárez; two villages near each other in the BO'RAI valley. SHAKA'RE'Z occurs twice.

46. KUTSA or KUCHA Valley means perhaps the Little Valley.

47. TSA'HAN Wells. TSA'HAN is the plural of TSA', a well, pit. The word appears again as UCHSAHA'N Springs. (?) The Upper (ÚJ) Springs.

48. BA'GHU TO'R Peak (?) The Black Bogie. BA'GÚ is a bugbear, bogie.

49. BA'LA DHA'KA (?) The Upper Plain (PA'G).

50. HANOKAI is probably a diminutive of HAN, the two passes being near each other.

51. TOGHAI, a river name, is Turkí for a reedy plain.

In a former paper in this Journal\* I remarked that a village may be called by six different names by guides, those thoroughly acquainted with the locality would recognise it by any one of them, others less well acquainted will only know it by some of them. Thus a village may be called (1) after the district or tract of land in which it is situated. TAKHT-I-PŪL is such a name, MEL MANDA is another; villages 10 miles apart are called TAKHT-I-PŪL and MEL MANDA simply because they are situated in the tracts so called. (2) It may be called after the section of the tribe which inhabits it, thus, BA'RAKZAI; (3) after the subdivision, thus, KHUNSE'ZAI or MOHAMMADZAI, (4) after its late owner if recently dead, (5) after its present owner, thus, KALA-I-NŪR-UD-DI'N KHAN merely means NŪR-UD-DI'N KHAN's village, and the owner's is usually the proper name of a village, (6) after its own name. To give an example; the village marked AMI'N KALA in my map of the ARGHISA'N valley was named to me as BA'RAKZAI, MUHAMMADZAI, AMI'N KHAN and LATI'F KHAN. LATI'F KHAN is its present owner: AMI'N KHAN was the late owner, MUHAMMADZAI is the subdivision and BA'RAKZAI the section of the tribe inhabiting it. It will be easily seen that the more general terms are known at a distance and the more specific ones only in the immediate neighbourhood of a village. Complicated as this system of nomenclature looks, it is natural enough in a country where the individual occupies such an important place in men's minds and nationality so little. It is not difficult to deal with in practice, after a slight knowledge of the country is acquired, but it accounts for the great apparent discrepancy in names and distances met with on maps and in routes. These remarks are true also of the TARI'N and KA'KAR country. Thus in the PISHIN, GANGALEAI and SHA'HDA'D are names for the same place, and so are URUMZAI and SAYAD SA'LO and also BRIJA'N KALA and AULKA KALA. Several villages are called BRAHAMZAI, viz., SAYAD DO'ST MOHAMMAD, SAYAD KHAMA'NDAI, SAYAD LA'L. Three are called LŪB (Upper) KHA'NIZAI, viz., MOHAMMAD SA'DIK, VAKI'L, and LA'L MOHAMMAD and two BAGAREZAI, viz., SAYAD ALAB and SAYAD PAIYO; two YA'SINGZAI, viz., SAYAD SHE'RBAT and SAYAD TO'TI. The more specific are the malik's (or owner's) names. In the case of the BRAHAMZAI villages, that of DO'ST MOHAMMAD may be called BRAHAMZAI proper, and the same is to be observed of the three KA'KOZAI villages in the same neighbourhood, one is called KA'KOZAI and the other two also MADAT and ATA' MOHAMMAD. On entering the DO'F valley the two villages known in the Pishin by several variations of the word ANGA'NG or NINGA'ND are found to be locally LŪB and KŪZ ANGANG, Upper and Lower ANGA'NG. Names, however, are more specific in the DO'F, and villages of the same name are distinguished by the tribal name in addition, thus TLARAI (TSA' KHE'L) and

\* Rough notes on the Distribution of the Afghán Tribes about Kandahár. Vol. XLVIII, pt. I, 1879.

TLARAI (MEHTARZAI). In the BO'RAI valley, however, WAZIA'GAI and KHANKAI seem to be general names for groups of villages and we have two MÚRS and two WAHA'RS. In the wilder parts names become more general and merely descriptive, everything in the neighbourhood, valley, river, village and hills, all being known by the same name. Such are, O'BUSHTKAI, KHWA'RA, CHIMJA'N, KACH, BAI'NAI in the SHO'R valley, and in still wilder regions NANGALÚNA, TO'POBARGH, TRI'KH KÚRAM, TSAMAULANG and BA'LA DHA'KA. Towards the Belóch Border double names, the Pathán and the Belóch are met with, as TO'R TSAPPAR and KA'LI' CHUPPEI, both of the same meaning, the Black Hill: and BA'HAN KUND (Pathán) = BANI'WA'LA' KACH (Belóch).

Some names are corruptions and abbreviations; such as SAYAD SA'LO and SA'YAD ÁTU probably, and perhaps SKAN and ISKAN for Alexander (ISKAN-DAR): AJJI' for HA'JI': SAMA'LZAI for ISMA'ILZAI: BRAHAMZAI for IBEA'HIMZAI: ÁLIP and ALAB for HALAB (ALEPPO): and perhaps SOPA'NZAI for ISFAHA'NZAI.

In places there seems to be a tendency to call villages after the names of celebrated places, thus we have DI'LAI, LA'HO'R and MÚLTAT in the BO'RAI valley.

Before leaving this point I would remark that across the Belóch Border in BA'RKHO'M (or BA'RKHA'N) a similar if not a greater confusion of nomenclature exists. Thus the place called LUGA'RI BA'RKHA'N is also called BANGALA': HASNI' KO'T = TA'NKHI SHAHR: CHA'HE'N = BA'BUL KHA'N KA KO'T or SHAHR: NA'NDHA' = SHE'KH KO'T while all the NA'HAR villages are sometimes grouped as NA'HAR KO'T, and finally the valley itself is variously called BA'RKHO'M, BA'RKHA'N, LUGA'RI BARKHÁN, LÚNDI'ÁN and KAHO.

Having now explained as far as possible the reasons why the nomenclature of travellers\* along the same route in Afghanistan should differ so greatly, and in order to clear the way for future students of this particular route, I close this paper by a comparison and identification of names found in the journals of other travellers with those to be found in my maps. Included among these are the nomenclature in Capt. Holdich's plane-table sketch-map of the Route and in the Quarter Master General's Departmental sketch-map, and also the names given in Major Waterhouse's paper in this Journal.†

\* Capt. Heavyside remarks on the difficulty of obtaining Afghan names, in Major Waterhouse's report, pp. 58. J. A. S. B. Vol. XVIII, pt. II, 1879.

† The works referred to in the comparison are Notes on the Survey Operations in Afghanistan in connection with the Campaign of 1878-9 by Major Waterhouse, J. A. S. B. 1879. Mackenzie's Routes in Asia, Sec. II, Afghanistan. Macgregor's Gazetteer, Afghanistan, Leech's Route: Dera Gházi Khán to Kandahár. Lumsden's Mission to Kandahár. A more detailed identification of the names along the route will be found in the appendix to my paper in the J. R. G. S. above referred to.

| Temple.           | Maogregor.         | Sandeman.    | Holdich.    | Q. M. G.     | Waterhouse.   |
|-------------------|--------------------|--------------|-------------|--------------|---------------|
| MA'R PASS         | MA'R               | ...          | MA'R        | MA'Z         | ...           |
| ISHA'NI           | ISA'NI             | ...          | ...         | ...          | ...           |
| DA'KA (BA'EKHA'N) | DAKKU KOT          | ...          | DAKKU KHA'N | DAKKA        | ...           |
| TO'B TSAPPAE      | KA'LA CHAPRI       | ...          | ...         | ...          | ...           |
| KA'LI' CHUPPRI    | KA'LA CHAPR        | ...          | ...         | ...          | ...           |
| HANOKAI PASS      | HANKI' SAR         | ...          | HANNOKAI    | HANNAKOI     | HANUKAI.      |
| KUTSA Valley      | KUCHA              | ...          | ...         | ...          | ...           |
| TRI'KH KURAM      | SO'B KURAM         | ...          | TREK KURAM  | TREKH KURAM  | TREKH KURAM.  |
| PAIND KHA'N KOT   | PAINDEH KHA'N KOT  | ...          | ...         | ...          | ...           |
|                   | PAINDEH KHA'N LUNI | ...          | ...         | ...          | ...           |
|                   | PAINDEH KHAN SHAHR | ...          | ...         | ...          | ...           |
|                   | PAINDEH KHA'N KOT  | ...          | ...         | ...          | ...           |
|                   | LI'NI              | ...          | ...         | ...          | ...           |
|                   | PAINDEH SHAHR      | ...          | ...         | ...          | ...           |
| BA'LA DHA'KA      | BA'LA DA'KA        | BA'LA DHA'KA | BA'LA DA'KA | BA'LA DA'KA  | BA'LLA DA'KA. |
| BA'LA DHA'KI      |                    |              |             |              |               |
| CHO'E TARAP       | CHO'E TRAP         | ...          | ...         | CHO'E KI TAP | ...           |
| JA'NDHRA'N Hills  | JA'NDRA'N          | ...          | JA'NDRA'N   | JA'NDRA'N    | ...           |
| DHAULA Hills      | DHA'OLA            | ...          | DHOWLA      | DHOWLAH      | ...           |
| R. KA'HAN         | R. KA'HA           | ...          | ...         | ...          | ...           |
| TSAMAULANG        | CHUMA'LANG         | ...          | CHAMA'LANG  | CHAMA'LANG   | CHAMA'LANG.   |
| R. LA'KI          | R. LA'KI LAHAR     | ...          | ...         | ...          | ...           |
| BA'EKHO'M         | BA'EKHA'N          | BA'EKHA'N    | BA'EKHA'N   | BA'EKHA'N    | BA'EKHA'N.    |
| BA'EKHA'N         |                    |              |             |              |               |

| Temple.                  | Macgregor.        | Sandeman.                   | Holdich. | Q. M. G.          | Waterhouse. |
|--------------------------|-------------------|-----------------------------|----------|-------------------|-------------|
| MIYTHÍ KHÚFN             | MITA KOH          | ..                          | HAN KÚA  | HAN KÚ'A          | ...         |
| BA'HAN KUND              | BA'HANWA'LA' KACH | ...                         | ...      | BA'HANWA'LA'KA'OH | ...         |
| BARBÚZ HILLS             | BARBO'J           | ...                         | ...      | ...               | ...         |
|                          | BARBO'Z           | ...                         | ...      | ...               | ...         |
| BAGHA'O                  | BIRBO'Z           | ...                         | ...      | ...               | ...         |
| SRAGHAR<br>(LÚNI Valley) | BAGHA'O           | ...                         | ...      | ...               | ...         |
|                          |                   | ? SHINGHAR }<br>? SANGHAI } | ...      | ...               | ...         |

II.—*Tal, Chotiali, and Neighbourhood.*

| Temple.    | Macgregor.        | Sandeman.  | Holdich.   | Q. M. G.   | Waterhouse. |
|------------|-------------------|------------|------------|------------|-------------|
| CHO'TIA'LI | CHO'TA'LI         | CHO'TA'LI  | CHO'TIA'LI | CHO'TIA'LI | Waterhouse. |
| KO'LU      | KO'LU             | KO'LU      | KO'LU      | KO'LU      | CHO'TIA'LI  |
| TAL        | TAL               | TAL        | TULL       | TULL       | THAL.       |
| RA'HA      | RA'H }<br>RA'HI } | ...        | RA'HA      | REHI       | REHL.       |
| BAGHA'WA   | BAGHA'O           | ...        | BAGHA'O    | BAGHA'O    | BAGHA'O.    |
| SMALAN     | SMALAN            | ...        | SMALAN     | SMALAN     | SMALAN.     |
| SHINLE'Z   | ...               | SHINJA'ZAI | SHINLAZE   | SINGLAZI   | ...         |
| SINZA'VAI  | ...               | SHINJA'VI  | SINGA'WI   | SANJA'WI   | SAGA'WE.    |





| Temple.     | Macgregor.                       | Sandeman.  | Holdich. | Q. M. G.                             | Waterhouse. |
|-------------|----------------------------------|------------|----------|--------------------------------------|-------------|
| KACH        | ? KATGAH                         | ...        | ...      | KATS                                 | ...         |
| DUMAR       | DHUMAD                           | ...        | ...      | DUMAR                                | ...         |
| SPE'ZHANDAI | ...                              | SPINZANDAI | ...      | SPE'ZANDAI                           | ...         |
| YSAF KACH   | { YU'SAF KACH }<br>{ ISAB KACH } | YSAB KACH  | ...      | YU'SUF KACH YU'SAF KACH EUSAF KATCH. |             |
| NINGA'ND    | ...                              | NAGA'ND    | ...      | ANGA'ND                              | NINGA'N.    |
| ANGA'NG     | ...                              | KA'KAR     | ...      | KA'KUR                               | KA'KAR.     |

V.—Pishin Valley and Neighbourhood.

| Temple.                  | Macgregor. | Sandeman. | Holdich. | Leech.  | Lumsden. | Q. M. G.                  | Waterhouse.        |
|--------------------------|------------|-----------|----------|---------|----------|---------------------------|--------------------|
| AMAND KHE'L              | SANATYA    | ...       | ...      | ...     | SIMANTHA | ...                       | ...                |
| SHA'HA'D                 | ...        | ...       | ...      | ...     | SHA'HA'D | ...                       | ...                |
| KALA-I-ABDULLA-<br>KHA'N | ...        | ...       | ...      | ...     | ...      | { KILA ABDUL-<br>LA KHA'N | KILA ABDUL-<br>LA. |
| PISHIN                   | PESHIN     | PISHIN    | PESHIN   | PESHIN  | PESHIN   | PESHIN                    | PISHIN.            |
| KHO'JAK                  | KHO'JAK    | KHO'JAK   | KHO'JAK  | ...     | ...      | KO'JAK                    | KHO'JAK.           |
| BABHO'R                  | BABHO'RA   | ...       | ...      | BABHO'R | ...      | ...                       | ...                |
| SAYAD PAIND              | PAIN KALA  | ...       | ...      | ...     | ...      | SAIPA'N                   | ...                |
|                          |            | SAIPA'N   | SAIPA'N  | ...     | ...      | SAIPA'N                   | ...                |

A comparison of the names to be found on the three latest maps of this route, namely, those of my own, Capt. Holdich, and the Quarter-Master General's Department, will complete my observations.

*From the Pishin eastwards.*

| Temple.                    | Holdich.                      | Quarter-Master General. |
|----------------------------|-------------------------------|-------------------------|
| KADANEI Valley             | KADANAI                       | KADANEI.                |
| KHO'JA AMRA'N Hills        | KHO'JA AMRA'N                 | KHO'JEH AMRA'N.         |
| KHWA'JA AMRAN Peak         | KWA'JA AMRAN                  | ...                     |
| KALA ABDULLAH KHA'N        | KILLA ABDULA                  | KILA ABDULA KHA'N.      |
| GWA'JA Pass                | GWA'JA                        | GWAJA.                  |
| TANGAI                     | TANGI                         | ...                     |
| KHO'JAK Pass               | KHO'JAK                       | KO'JAK.                 |
| ARAMBI                     | ARUMBI                        | ARUMBI.                 |
| RAHAMDIL KHA'N             | RA'MDIL KHA'N                 | ...                     |
| BADWA'N                    | BUDWA'N                       | BADWA'N.                |
| TURKHE'L                   | TURKHE'L                      | TURKHAIL.               |
| BRIJA'N KALA               | MAISAI & PAIZI                | ...                     |
| SAYAD SALO }<br>URUMZAI }  | URAMZAI                       | ...                     |
| SHA'HDA'D }<br>GANGALZAI } | GANGALZAI                     | ...                     |
| AJABZAI                    | AJABZAI                       | AJABZAI.                |
| SAYAMZAI                   | SE'MZAI                       | SE'MZAI.                |
| ALIZAI                     | ALAZAI                        | ALI'ZAI.                |
| R. TO'GHAI                 | TO'GHAI                       | ...                     |
| R. MUZARAI                 | MUZARAI                       | ...                     |
| SOPA'NZAI                  | ZE'BI'                        | ...                     |
| BRHAMZAI                   | { BRAHAMZAI }<br>{ BRAINZAI } | ...                     |
| MA'LIKAI                   | MA'LIZAI                      | ...                     |
| BAGARZAI                   | BAGGARZAI                     | BAGARZAI.               |
| SAMA'LEZAI                 | SMA'LEZAI                     | SMA'LEZAI.              |
| SAYAD PAIN                 | SAIPA'N & SAIPAIN             | SAIPA'N & PAIN KALA.    |
| NOA' BA'ZA'RB              | ...                           | NOA' BA'ZA'RB.          |
| MANZAKAI                   | MANZAKAI                      | MANZAKAI.               |
| KHA'NZAI                   | KHA'NZAI                      | KHA'NZAI.               |
| SHE'KHA'LEZAI              | SHEIKHA'RI                    | SHEIKHAHA'RL.           |
| KHU'SHDIL KHA'N            | KUSHDIL                       | KHUSHDIL.               |
| R. BARSO'                  | BARSO                         | BARSO'.                 |
| MA'LIKYA'RB                | MA'LIKYA'RB                   | MA'LIKYA'RB.            |

| Temple.           | Holdich.                   | Quarter-Master General. |
|-------------------|----------------------------|-------------------------|
| KAMA'LZAI         | KAMA'LZAI                  | KAMA'LZAI.              |
| NU'RZAI           | NA'RIA'N                   | NA'RIA'N.               |
| YA'SINGZAI        | ASIMZAI                    | ASIMZAI.                |
| TABI'N            | TURI'N                     | TURI'N.                 |
| SUBAI Pass        | SURINA'RI                  | SURUNA'RI.              |
| ANGA'NG           | ANGA'ND                    | NINGA'ND.               |
| R. SURKHA'B       | SURKHA'B                   | SURKHA'B.               |
| MOHAMMAD SHARFI   | SARIA'DA KA'RE'Z           | SABEA'DA KA'RE'Z.       |
| MT. KAND          | KUND                       | KAND.                   |
| MEHTARZAI         | ME'TRAZAI                  | ME'TRAZAI.              |
| TLARAI            | TALARAI                    | LARAI.                  |
| MURGHAI           | MURGHA'                    | MURGHA'.                |
| SHARAN            | SHIRAN                     | ...                     |
| NARI'N            | ...                        | NARI'N.                 |
| BALUZAI KA'RE'Z   | BALUZAI                    | BULOZAI.                |
| SA'GHAI           | SARGAI                     | SARGAI.                 |
| SAMA'WAN          | ZEMIRSTA'N                 | ZEMIRSTA'N.             |
| KHA'NIZAI KA'RE'Z | KHA'NZAI                   | KHA'NZAI.               |
| SHAKAR            | SAKKAR                     | SAKKAR.                 |
| ZARGHU'N KA'RE'Z  | ZERGU'N KA'RE'Z            | ...                     |
| KSHO'I KA'RE'Z    | KUSO'I                     | KUSO'I.                 |
| R. RO'D           | TO'GAI                     | TO'GAI.                 |
| GWA'L             | GWA'L                      | GWA'L.                  |
| PISHIN            | PISHIN                     | PE'SHIN.                |
| MT. TAKATU'       | TAKATU'                    | TA'TUCKA.               |
| WOCHAKHLA         | TURA KALA                  | ...                     |
| UKHMUGHDAI Pass   | OKHMUKHZAI                 | UCHMUCHZAI.             |
| R. ZADU'N         | ...                        | ZERDU'N.                |
| AMADU'N           | AMADU'N                    | AMADU'N.                |
| MT. ZARGHU'N      | ZERGHU'N                   | ZERGHU'N.               |
| KA'KAR            | KA'KUR.                    | KA'KUR.                 |
| ISAF KACH         | YUSUF KACH                 | YUSAF KACH.             |
| USH Pass          | USHTA'RA                   | USHTA'RAH.              |
| MT. MAZHWO        | MASHKWAB                   | MASHKWAB.               |
| SPE'ZHANDAI       | SPE'ZANDAI                 | SPE'ZANDAI.             |
| ISPIRA RAGHA      | { SPIRARAGHA<br>SPIRARGH } | SPIRARAGHAH.            |
| MT. SPINSKHAR     | ...                        | SPINSKHAR.              |
| DUMAR             | DUMAR                      | ...                     |
| MT. SURGHWAND     | SURKAND                    | ZERGU'N.                |
| ZHO'B Valley      | ZHO'B                      | ZHO'B.                  |

| Temple.            | Holdich.                    | Quarter-Master General. |
|--------------------|-----------------------------|-------------------------|
| NANGALU'NA Pass    | MO'MANDGAI                  | MAMANAGI.               |
| MO'MAND SARA'I     |                             |                         |
| MO'MAND            |                             |                         |
| O'BUSHTKAI         | O'BOSKOI                    | O'BOSKOL.               |
| CHIMJA'N           | CHIMJA'N                    | CHINJA'N.               |
| PA'LKAI Pass       | PA'LKI'                     | PA'LKI'.                |
| WARGHAS            | WERGUS                      | ...                     |
| HINDU BA'GH        | HINDU BA'GH                 | HINDOO BA'GH.           |
| GURMAI             | GURMI'                      | GURMI'.                 |
| Mt. MASHKHILAR     | MASHKHILAR                  | MASHKILAR.              |
| Mt. SIA'JGAI       | SIA'SGAI                    | SIA'SGAI.               |
| DARGAI             | DARGAI                      | DARGAI.                 |
| CHINA'LI           | CHINA'LI                    | CHINA'LI.               |
| SENGALU'N          | SHUNDLU'N                   | SHU'N LU'N.             |
| KA'SAI Hill        | MANA'RA                     | MANA'RA'.               |
| KACH               | KATS                        | KATS.                   |
| BIA'NAI            | BIA'NI                      | BIA'NI.                 |
| SARKAI ZANGAL      | SKAIJANGAL                  | SKAIJANGAL.             |
| NINGA'ND           | NIMGA'N                     | NINGA'N.                |
| GHOBARGAI Hill     | GOBARGI'                    | GOBARGI'.               |
| SMALAN             | SMALAN                      | SMALAN.                 |
| SINZAWAI           | SINGA'VI                    | SANJA'VI.               |
| SHINLE'Z           | SINGLAZE                    | SINGLAZI.               |
| BAGHA'WA           | BAGHA'O                     | BAGHA'O.                |
| JALKA'RE'Z         | KA'RE'Z                     | KA'RE'Z.                |
| SHAKA'RE'Z         | SHAHKA'RE'Z                 | SHAHKA'RE'Z.            |
| To'r KHAIZE' Hills | { DURGAINNI<br>DARMANGARH } | DURGUNNY.               |
| LASHTAI            | LASHTAI                     | LUSHTAI.                |
| WARIA'GAI          | URIASGAI                    | URIAGAI.                |
| ZANGIWA'L          | ZANGIWA'L                   | ZANGIWA'L.              |
| KHANKAI            | { KONKAI<br>CHAPLAI }       | { KONKAI<br>CHAPLAI. }  |
| RO'DLI'N           | KUDISAI                     | ...                     |
| NAVGIYVA'LA        | MALAIYAM                    | MALAIAN.                |
| LA'HO'R            | LA'HOR                      | LAHORE.                 |
| DILAI              | DELHI                       | DELHI.                  |
| MU'LTAT            | MUDDUK                      | MUDDUH.                 |
| DARGAI             | DARGAI                      | DARGAI.                 |
| SHABOZAI           | SHABOZAI                    | SHABOZAI.               |
| SHARAN             | SHO'RA'N                    | SHORA'N.                |

| Temple.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Holdich.                                                                                                                                                                                                                                                                                                                                                                                                                 | Quarter-Master General.                                                                                                                                                                                                                                                                                                                                                                           |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| BARMINAI }<br>DA'LO'R }<br>SAGHARAI }<br>CHINA' KO'T }<br>KACHAI }<br>KANA' }<br>KACH }<br>SHARAN }<br>SHA'BA'N }<br>KAUN WAHA'B }<br>KURU }<br>HANUMBA'E }<br>GADIWA'E }<br>SARGHAR Peak }<br>LU'NI }<br>SHAUGWA'L }<br>TRI'KH KURAM }<br>RAHA }<br>TAL }<br>CHO'TIA'LI }<br>KO'LU }<br>BRAHAMZAI KHELA'T }<br>MA'E Pass }<br>TSAMAULANG }<br>HANOKAI Pass }<br>BA'LA DHA'KA }<br>MITTHI' KHU'I'N }<br>HAN Pass }<br>JA'NDHRA'N Hills }<br>CHO'R TARAP }<br>BA'HAN KUND }<br>CHAPAR Hills } | BARANMAI }<br>BA'MEMAI }<br>DALU'B }<br>SAGRE' }<br>CHINNA }<br>KATSAI }<br>KHANA }<br>KATS }<br>... }<br>SHAMURLAK }<br>AWAHA'E }<br>KHURU }<br>ANUMBA'E }<br>GADBA'E }<br>TATRI }<br>LU'NI }<br>SHAHGOLAI }<br>TREKH KURAM }<br>RAHA }<br>TULL }<br>CHO'TIA'LI }<br>KO'LU }<br>PA'RAMZAI }<br>MA'E }<br>CHAMA'LANG }<br>HANNOKAI }<br>BA'LLADA'KA }<br>HANKU'A }<br>HAN }<br>JA'NDRA'N }<br>... }<br>... }<br>CHAPAR } | BAMEMAL<br>DALUR.<br>SAGRE'.<br>CHINNA.<br>KATSAI.<br>KHANA.<br>KHAS.<br>SHORAN.<br>SHAMARLAK.<br>AWA'HAR.<br>KHURU.<br>ANAMBAR.<br>GADBAR.<br>TATARI.<br>LU'NI.<br>SHAHGOLAI.<br>TREKH KURRAM.<br>REHI.<br>TAL.<br>CHO'TIA'LI.<br>KO'LU.<br>BA'RAMZAI.<br>MA'E.<br>CHAMA'LANG.<br>HANNAKOI.<br>BA'LLADA'KA.<br>HANKU'A.<br>HAN.<br>JA'NDRA'N.<br>CHO'R KI' TAP.<br>BA'HANWA'LA' KACH.<br>CHAPAR. |

*On the Sūryaprajñapti.*—By DR. G. THIBAUT, *Principal, Benares College.*

PART II.

(Continued from p. 127.)

Although ancient Indian astronomy was chiefly interested in the moon and although the greater part of the *Sūryaprajñapti* treats of her, especially of the places she occupies at different times in the circle of the nakshatras, a detailed connected account of her motions is not given anywhere, and we must combine the hints we meet with here and there, in order to understand the theory by which the old *tīrthan-kīras* tried to explain to themselves her motion. In doing this we are of course greatly aided by the full and unambiguous account given of the sun's motion, since it will not be presuming too much that the theory which had been applied to the one luminary would be applied to the other one also. As we have seen above, the sun's daily apparent motion is regarded to be his true one and considered to take place round Mount Meru; his yearly motion is the consequence of his moving more slowly than the stars; his motion in declination is the result of his describing round Mount Meru circles of varying diameter. All this is applied to the moon too. The moon describes (or the two moons describe) circles round Mount Meru at the height of eight hundred and eighty yojanas above the earth, so that her place is eighty yojanas above that of the sun. She moves slower than the stars and slower than the sun; while the latter describes during one yuga 1,830 (or strictly speaking 915) circles, the moon describes only 1,768 (or again on the assumption of two moons 884) such circles; the difference of the two numbers = 62 indicates the number of times the moon enters into conjunction with the sun. During the same period, *viz.*, the quinquennial yuga, the moon completes sixty-seven sidereal revolutions. Each of these revolutions is, analogously to the sun's revolutions, divided into two *ayan*as, an *uttarāyana* and a *dakṣiṇāyana*, according as the moon is proceeding towards the north or the south (of the equator as we should add). In reality, it is true, the motion of the moon is much more complicated, as it is not only oblique to the equator, like the ecliptic in which the sun is moving, but also inclined to the ecliptic itself at an angle of about 5°, while moreover at the same time the points in which the moon's path cuts the ecliptic are continually receding. One of the consequences of the revolution of the nodes did, as we shall see below, not escape the observation of the author of the *Sūryaprajñapti*, but he was manifestly unable to account for it by a modification of his theory. According to him the moon, like the sun, simply describes concentric circles round Mount Meru, some-

times approaching it sometimes receding from it. While, however, the period of the sun's progress from and towards Mount Meru comprises one year—the time which the sun employs in arriving again at the same star—the corresponding period of the moon embraces one nakshatra month = 27 days,  $9\frac{4}{7}$  muhūrtas. From this it is easy to find the number of the circles the moon describes. She performs during one yuga 1,768 complete revolutions, consequently during one nakshatra month  $\frac{1768}{67} = 26\frac{26}{67}$  revolutions, and during one ayana or sidereal half month  $13\frac{13}{67}$  revolutions. The moon therefore proceeds towards the north during the time which she wants for describing  $13\frac{13}{67}$  circles, and after that she proceeds towards the south for the same length of time. From this it follows that, while the sun has 184 different circles to describe, the moon has fifteen such circles only. At the beginning of the yuga she leaves the outermost circle and begins her uttarāyana, describes the thirteen circles intermediate between the outermost and the innermost ones and enters into the fifteenth (innermost) circle, through  $\frac{13}{67}$  parts of which she passes. After that the sidereal half moon has elapsed, and the moon has to retrace her steps towards the south. She therefore leaves the innermost circle unfinished, returns into the next one, passes again through the 13 intermediate circles and enters into the 15th (outermost) circle. After she has passed through  $\frac{13}{67}$  parts of the latter, the sidereal half moon is again over and the progress towards the north recommences. Thus the moon moves in 15 circles of different diameter, but only 13 she passes through in their entirety while a fractional part only of the two exterior circles are touched by her. We have seen above that the vikampa-kshetra of the sun, *i. e.*, the extent to which the sun moves sideways in his northern and southern progress is estimated at 510 yojanas ( $= 183 \times 2\frac{48}{61}$ ; the latter quantity being the amount of the daily vikampa); the vikampa-kshetra of the moon is estimated at nearly the same amount, *viz.*,  $509\frac{53}{61}$  yojanas (it has been already remarked that the inclination of the moon's path to the ecliptic is not known to the Sūryaprajñapti). The diameter of the moon herself is estimated at  $\frac{56}{61}$  yojanas, the interval between consecutive circles described by the moon at  $35 + \frac{80}{61} + \frac{4}{7 \times 61}$  yojanas; the sum of these two quantities is  $36 + \frac{25}{61}$



$+\frac{4}{7 \times 61}$ , which multiplied by 14, gives the above stated amount  $\left(509 \frac{53}{61}\right)$  as the whole vikampakshetra during one lunar half month.

Here—as likewise above with reference to the sun—the Sūryaprajñapti does not directly speak of the diameter of the moon, but of the measure of the breadth of the circle described by the moon; but the two things come to the same. The manner in which the moon, after having completed one of her circles, passes over into the next one is not expressly detailed; we must imagine it similar to that of the sun.

In connexion with this account of the moon's motion, the Sūryaprajñapti enters into a curious calculation, of no practical, and it can hardly be said any theoretical interest, which, however, may be mentioned here as a specimen of the accuracy with which the system is worked out into its minutest details. The question is raised: what circles are common to the sun and moon and how far are those of the moon's circles which belong to the sun also touched by the latter? As the moon's circles are elevated above those of the sun by the amount of eighty yojanas, strictly speaking not any circle is common to both; common to both are, however, said to be those circles of the moon which when projected upon the plane in which the sun describes his circles partially or entirely coincide with the latter. The vikampa-kshetras of the two being nearly equal, while 15 circles of the moon correspond to 184 circles described by the sun, the consequence is that the by far greater portion of the sun's circles do not coincide with the moon's circles, but fall into the wide intervals separating the latter, one from another. Thus for instance the first (innermost) circle of the sun coincides with the first circle of the moon, so that when both luminaries move in their innermost circles their distance from Mount Meru is equal; only the circle of the moon overlaps that of the sun by  $\frac{8}{61}$  yojanas, this being the difference of the breadth of the circles described by the two (of the diameters of the two bodies). The next twelve circles of the sun all fall into the interval between the first and the second circle of the moon; for this interval (plus the overlapping  $\frac{8}{61}$  of the first circle) amounts to  $35 + \frac{38}{61}$   $+\frac{4}{7 \times 61}$  yojanas, while the vikampa-kshetra of twelve solar circles amounts to  $33 \frac{27}{61}$  yojanas only. After that two yojanas are occupied by the interval between the 13th and the 14th solar circles, and then the fourteenth solar circle begins, which therefore partly coincides with the second lunar circle. By continuing these calculations for all lunar circles, it is

found that the first up to the fifth inclusive, and again the eleventh up to the fifteenth inclusive are "sūrya-sammisráni," i. e., partly coincide with solar circles, while the sixth up to the tenth do not coincide with solar circles, the latter falling entirely into the intervals between the named lunar circles. To reproduce here all the details of the calculation would be purposeless.—That the preceding account of the moon's motion agrees with the ideas of the author of the Sūryaprajñapti is to be concluded from the formulas given in different parts of the work for the performance of certain calculations. Thus for instance the question is raised, in what ayana and what circle each parvan takes place, i. e., how many ayanas have elapsed at the different times when the moon enters into conjunction or opposition and in which of the fifteen circles she is moving just then. This question is answered by some ancient gáthás quoted in the commentary, according to which the calculation has to be made as follows. The constant quantity—the  $\text{भुवरात्रि}$ —which is to be used for the calculation of each parvan, is equal to  $1 + \frac{4}{67} + \frac{9}{31 \times 67}$ , viz., of one of the circles described by the moon.

This quantity is of course easily found by the following consideration. The moon which describes in one yuga 1,768 circles describes in one parvan  $\frac{1768}{124} = 14 \frac{8}{31}$  circles and in one ayana  $13 \frac{13}{67}$  circles; the difference of these two quantities is the above mentioned constant quantity. The rule for finding the places of the parvans is now as follows: The way accomplished by the moon during one parvan being equal to the way accomplished during one ayana plus  $1 + \frac{4}{67} + \frac{9}{31 \times 67}$  circles, take at first as many ayanas as the number of the parvan whose place is wanted indicates, multiply then the constant quantity by the number of the parvan, and if the result exceeds  $13 \frac{13}{67}$ , deduct it from this latter quantity (which subtraction

if necessary has to be repeated until the remainder is less than  $13 \frac{13}{67}$ ); as often as this subtraction is performed as many unities are to be added to the number of ayanas found above and—unless the subtraction leaves no remainder—one additional unity is to be added; add two to the remainder; the resulting sum will indicate the circle in which the moon stands at the parvan. Regarding this latter point it is to be remembered that the circles are to be counted from the innermost circle when the number of the parvan is an even one and from the outermost circle when it is an odd one. To illustrate this let us take one of the many examples given by the Commentator. Required the place of the moon at the fourteenth parvan. Multiply at first one by fourteen, that means: fourteen ayanas have elapsed

at the time. Then multiply  $1 + \frac{4}{67} + \frac{9}{31 \times 67}$  by fourteen; the result is  $14 + \frac{56}{67} + \frac{126}{31 \times 67} = 14 + \frac{60}{67} + \frac{2}{31 \times 67}$ . This is the number of circles which the moon has passed through during fourteen parvans in addition to fourteen ayanas. As this number exceeds the number of circles passed through in one ayana (*viz.*,  $13 \frac{13}{67}$ ), the latter number has to be deducted from it and one has to be added to the number of ayanas. So we see that the moon has performed 15 ayanas at the end of the 14th parvan. The remainder left after the above deduction shows the number of circles which the moon has passed through in addition to the 15 complete ayanas; in our case these amount to  $1 + \frac{47}{67} + \frac{2}{31 \times 67}$ . As there is an excess above 15 complete ayanas, we have according to the rule to add one to their number, *i. e.*, the parvan takes place in the sixteenth ayana. And since the moon enters at the beginning of the ayana into the second circle (the circles being counted from the innermost as well as the outermost) and since in our case the moon has completed more than one full circle, two has to be added to the number of circles found above in order to obtain the ordinal number of the circle in which the moon stands at the expiration of the 14th parvan. The full answer is therefore: the 14th parvan takes place in the sixteenth ayana, in the third circle (reckoning from the innermost circle),  $\frac{47}{67} + \frac{2}{31 \times 67}$  of this circle having already been passed through. In the same manner the places of all other parvans may be easily found; the commentator gives the places of parvan I—XV; but it would serve no purpose to extract them here. What has been given will suffice to justify the hypothetical account of the moon's motion detailed above.

The question regarding the relative velocity of sun, moon and stars which is raised in the 15th book finds its answer in accordance with the general principles of the system. The apparent daily motion being considered as the real one, it follows that the nakshatras travel faster than the sun, and the sun again faster than the moon; the space passed through by each of these bodies during a month, day, muhūrta, etc. is calculated and exhibited in detail; we need, however, only remember that the sun describes in one yuga 1,830 circles, while the moon describes only 1,768 and the nakshatras—through whose circle the sun passes five times—describe 1,835. From these relations all special values can be easily derived. It is just mentioned—no details being given—that the planets (graha) travel faster than the sun and the stars (tārāḥ) faster than the nakshatras. It is needless to discuss the former of these two assertions; the latter is of course

entirely indefensible and no reason leading to it can well be imagined. This is the only time that the stars—excluding the nakshatras—are mentioned in the Sūryaprajñapti as far as we can judge from the commentary.

The next point to be considered is the information the Sūryaprajñapti furnishes with regard to the nakshatras. Incidentally it has already been remarked that the number of the nakshatras is invariably stated as being twenty-eight, and that the nakshatras are as invariably treated as being of different extent. The particulars are as follows :

According to their extent or, to look at it from another point of view, according to the time during which sun and moon are in conjunction with them, the nakshatras are divided into four classes. Firstly, those with which the moon is in conjunction during one ahorātra = thirty muhūrtas; to this class belong Revatī, Aśvinī, Kṛittikā, Mṛigaśīras, Pushya, Maghā, Pūrvaphālgunī, Hasta, Chitrā, Anurādhā, Mūla, Pūrvāśāḍhā, Śravaṇa, Śṛaviṣṭhā, Pūrvabhādrapadā. The one ahorātra for which the conjunction lasts may be expressed as  $\frac{2010}{67}$  muhūrtas, the convenience of which

expression will appear at once. The second division comprises those nakshatras which are in conjunction with the moon for half a nycthemeron = fifteen muhūrtas =  $\frac{1005}{67}$  muhūrtas; to this division belong Śatabhishaj,

Āśleshā, Bharanī, Jyeshṭhā, Ārdrā, Svātī. To the third division belong those nakshatras with which the moon is in conjunction for one and a half nycthemeron = 45 muhūrtas =  $\frac{3015}{67}$  muhūrtas; these nakshatras are

Uttarāśāḍhā, Uttarahālgunī, Uttara-bhādrapada, Punarvasu, Viśākhā, Rohiṇī. The fourth division comprises one nakshatra only, *viz.*, Abhijit, with which the moon is in conjunction for  $9\frac{27}{67} = \frac{630}{67}$  muhūrtas. We see now

for what reason the time of conjunction has been expressed throughout in sixty-sevenths of a muhūrta; it was done for the purpose of obtaining homogeneous expressions for all nakshatras. At the same time these fractions furnish us with an easy means for calculating the time during which the sun is in conjunction with each nakshatra; for five revolutions of the sun occupying the same time as sixty-seven revolutions of the moon, we have only to replace the denominator of the above fractions by five. The result of this operation having been turned into nycthemera, we find as the expression for the time during which the sun is in conjunction with the nakshatras of the four divisions the four following terms: 13 days, 12 muhūrtas; 6 days, 21 muhūrtas; 20 days, 3 muhūrtas; 4 days, 6 muhūrtas.—According to the space the nakshatras occupy they are either samakshetra, occupying a mean (medium) field or apārdhakshetra, occupying

half a field or *dvyardhakshetra*, occupying one field and a half. There is no special name for the extent of *Abhijit*.

In connexion with this division of the *nakshatras* into different classes according to the space they occupy or the time during which they are in conjunction with the moon, there is another one referring to the time of the day or the night at which they enter into conjunction. This classification is, however, connected with considerable difficulties. It is nowhere clearly stated on the conjunctions of what particular month this division is based; that such a statement ought to have been given, appears from the consideration that the periodical month during which the moon passes through all *nakshatras* comprises 27 days plus  $\frac{27}{67}$  days, and that there-

fore in the second, third, fourth, etc. months the times at which the moon enters into conjunction with the single *nakshatras* will all differ from the times of the first month. If for instance the moon at the beginning of the first month enters into conjunction with *Abhijit* in the early morning, she will at the beginning of the second month again enter into conjunction with it  $9\frac{27}{67}$  *muhūrtas* later, that is, in the afternoon and so on. Other

difficulties will appear from the following detailed reproduction of the *Sūryaprajñapti's* account concerning this point. The *nakshatras* are either "*pūrvabhāga*" *i. e.*, such as enter into conjunction with the moon during the forenoon; or "*pāśchādbhāga*" *i. e.*, such as enter into conjunction during the afternoon or "*naktambhāga*" *i. e.*, such as enter into conjunction during the night or "*ubhayabhāga*" which term will be explained further on. The *nakshatras* of the two first classes are the *samakshetras*, those of the third class the *apārdhakshetras*, those of the fourth class the *dvyardhakshetras*. It certainly does not appear why the *samakshetras* should enter into conjunction with the moon during the day only and the *apārdhakshetras* during the night only; in reality there is no connexion between the extent of a *nakshatra* and the time when the moon enters into it. Let us, however, follow the detailed statements about each single *nakshatra*. The first aphorism of the *Sūryaprajñapti* appears to be "*Abhijit and Śravaṇa are pāśchādbhāga samakshetra.*" To this the commentator rightly objects that *Abhijit* is neither *samakshetra*, since it occupies only  $9\frac{27}{67}$  *muhūrtas* of

the moon's periodical revolution, nor *pāśchādbhāga*, since at the beginning of the *yuga* the moon enters into conjunction with it in the early morning. At the same time he tries to obviate these objections by remarking that *Abhijit* is called *samakshetra* and *pāśchādbhāga*, because it is always connected with *Śravaṇa* to which both these attributes rightly belong, or that it may be called *pāśchādbhāga* with a view to conjunctions other than the

first one which may take place in the course of the yuga. But these both attempts at reconciling contradictions are very unsatisfactory. Howsoever this may be, the commentator goes on to explain that Abhijit and Śravaṇa, after having finished their conjunction with the moon, hand her over to Dhanishṭhā at evening (Abhijit-śravaṇo dve nakshatre śāyam-samayād śrabhya ekām rātrim ekam cha sātirekam divasam chandreṇa sārddham yogam yuktaḥ etāvantaṃ kālam yogam yuktvā tad-anantaram yogam anu-parivartayataḥ ātmanāś chyāvayataḥ yogam chānuparivartya śāyam divasasya katitame paśchādbbhāge chandram dhanishṭhāyāḥ samarpayataḥ). For this reason Dhanishṭhā also is paśchādbbhāga. After having been in conjunction with it for thirty muhūrtas the moon enters Śatabhishaj at the time when the stars have already become visible (parishphuṭanakshatramanḍalāvaloke); Śatabhishaj is therefore naktambhāga. How Śatabhishaj enters into conjunction at night, while exactly one ahorātra before Dhanishṭhā has been said to enter into conjunction during the afternoon, is not explained. Śatabhishaj being apārdhakshetra, the moon remains in conjunction with it for fifteen muhūrtas only and enters on the next morning into conjunction with Pūrva-proshṭhapada, which being samakshetra remains in conjunction during one whole ahorātra. On the following morning the moon enters Uttara-proshṭhapada, which therefore would be pūrvabhāga. But the matter is looked at in a different light, Uttara-proshṭhapada is dvyardhakshetra, i. e., remains in conjunction for 45 muhūrtas. If we now deduct from this duration the fifteen first muhūrtas and imagine Uttara-proshṭhapada to be samakshetra, the conjunction of the moon with it—looked at as samakshetra—may be said to take place at night and in consequence one—the real—conjunction taking place during the day and the other—the fictitious one—taking place at night the nakshatra is called ubhayabhāga (idam kilottarabhādrapadākhyam nakshatram uktaprakāreṇa prātas chandreṇa saha yugam adhigacchhati, kevalam prathamān pañchadaśa muhūrtān adhikān apaniya samakshetram kalpayitvā yadā yogaś chintyate tadā naktam api yogo 'stīty ubhayabhāgam avaseyam). Uttara-bhādrapada remains in conjunction for one day, one night and again one day, on the evening of which the moon enters Revatī; Revatī is therefore paśchādbbhāga. After it has remained in conjunction for one nycthemeron the moon passes into Aśvinī at evening time. Aśvinī is therefore likewise paśchādbbhāga. From it the moon passes on the next evening into Bharanī, at the time, however, when the stars have become visible and night may be said to have begun; Bharanī is therefore naktambhāga. Being at the same time apārdhakshetra, the moon leaves it on the next morning to enter Kṛittikā, which therefore is pūrvabhāga. On the next morning the moon enters Rohiṇī which is dvyardhakshetra and, on account of that, ubhayabhāga. Mṛigaśīras which she enters forty-five muhūrtas

later at evening is paśchādbhāga; Ardrā which enters into conjunction thirty muhūrtas later, at the time when the stars have come out, is naktambhāga; Punarvasu into which the moon enters on the next morning, being dvyardha, is ubhayabhāga. Pushya comes into conjunction on the evening of the following day and is paśchādbhāga; Āślesha thirty muhūrtas later, when the stars have come out, and is naktambhāga; Maghā and Pūrvaphalgunī into which the moon enters on the mornings of the two following days are pūrvabhāga; Uttara-phalgunī which comes into conjunction on the morning after that is ubhayabhāga, because it is dvyardhakshetra. Hasta and Chitrā enter into conjunction on the evenings of the two following days, before night has set in, and are therefore paśchādbhāga. Then again follows one naktambhāga nakshatra, viz., Svātī which enters into conjunction after nightfall, and upon this a dvyardhakshetra and consequently ubhayabhāga nakshatra, viz., Viśākhā. Then Anurādhā paśchādbhāga, after this Jyeshthā, apārdhakshetra and naktambhāga, remaining in conjunction from nightfall to the morning only; after this two samakshetra and pūrvabhāga nakshatras, viz., Mūla and Pūrvāshādhā. And finally Uttarāshādhā, which enters into conjunction on the morning, is, however, as a dvyardhakshetra, reckoned among the ubhayabhāga. It remains in conjunction for one nycthemeron and the following day, in whose evening the moon arrives at Abhijit whence she had started a (periodical) month ago.

The difficulties involved in all the preceding statements are increased by an assertion made in another chapter of the Sūryaprajñapti, viz., that no nakshatra always enters into conjunction with the moon at the same time of the day. This is indeed true, but it contradicts the preceding statements. It may be that this whole classification of the nakshatras according to the time of the day at which they enter into conjunction with the moon is a remainder of an earlier stage of knowledge, when the periodical month was supposed to last just twenty-seven days without an additional fraction, and when it therefore was possible to assign to each nakshatra one fixed hour at which it entered into conjunction during each periodical revolution of the moon. It is true that actual observation would speedily have shown the error of such an assumption, but this remark would apply to almost all hypotheses of the Indians of that period, and we may therefore suppose that in this point too the desire of systematizing prevailed during a certain period over the testimony of the eyes. Later on when the duration of the periodical month had become better known, the old classification lost its foundation entirely and ought to have been dropped; but through the force of custom it maintained its place and was justified some how, although not with the best success, as we have had occasion to observe above.

On the places of the nakshatras with regard to the moon we receive

A A

the following information (X. 11). Six nakshatras, *viz.*, Mṛigaśiras, Ardrá, Pushya, Āśleshá, Hasta, Múla always stand to the south of the moon whenever she enters into conjunction with them. Twelve nakshatras—Abhijit, Śravaṇa, Dhanishṭhá, Śatabhishaj, Púrva-bhádrapadá, Uttara-bhádrapadá, Revatí, Ásviní, Bharaní, Púrva-phálguní, Uttara-phálguní, Svátí always stand to the north of the moon. Seven nakshatras—Kṛittiká, Rohiní, Punarvasu, Maghá, Chitrá, Visákhá, Anurádhá—sometimes stand to the north of the moon entering into conjunction with them; sometimes, however, the moon enters into conjunction with them “*pramardarúpeṇa*” *viz.*, in such a manner that she passes right through them. To this class, the commentator remarks, some teachers holding an opinion different from that of the Sūryaprajñapti add also Jyeshṭhá. Two nakshatras, *viz.*, the two Āshádhás stand at the time of conjunction either to the south of the moon or the latter passes right over them. Both these nakshatras consist of four stars each, two of which are situated inside, *viz.*, to the north of the fifteenth circle of the moon, while the two remaining ones are placed outside, *viz.*, to the south of the same circle. Now whenever the moon enters into conjunction with either of the two nakshatras, she passes right between the former pair of stars and may therefore be said to be in conjunction “*pramardarúpeṇa.*” Finally one nakshatra, *viz.*, Jyeshṭhá, always enters into conjunction with the moon *pramardarúpeṇa.* Regarding the relation of the nakshatras to the fifteen circles of the moon, the following statements are made. Eight circles always are “undeprived” (*avirahitáni*) of nakshatras. The twelve nakshatras mentioned above, beginning with Abhijit, are in the first circle; in the third circle there are Punarvasu and Maghá; in the sixth, Kṛittiká; in the seventh, Rohiní and Chitrá; in the eighth, Visákhá; in the tenth, Anurádhá; in the eleventh, Jyeshṭhá; in the fifteenth, Mṛigaśiras, Ardrá, Pushya, Āśleshá, Hasta, Múla and the two Āshádhás. For although the first six of the last mentioned class in reality move outside the fifteenth circle, they are—the commentator says—so near to it that they may be said to be in it. In order to form a right estimate of the meaning and the value of these statements, we must recall to our mind what has been remarked above about the Sūryaprajñapti’s theory of the moon’s motion. The moon is supposed to proceed alternately towards the south and the north in the same way as the sun does, following—as the Sūryaprajñapti seems to assume—the same path; that she in addition to the movement in declination has a movement in latitude, and that the points in which her orbit cuts the ecliptic are continually receding is ignored, theoretically at least, although it had been observed that the position of the moon with regard to some nakshatras is different at different times, that she sometimes passes on the north or south-side of a constellation and at other times moves right through it. Now comparing the particulars



with the information given about the position of the nakshatras in the Siddhāntas, we find that the Sūryaprajñapti agrees with the latter with regard to five out of the six nakshatras said always to stand south of the moon (*Mṛigaśīras*, *Ardrā*, *Āśleshā*, *Hasta*, *Mūla*), the latitude of all of them considerably exceeding the highest latitude the moon ever reaches. The case lies differently with regard to *Pushya*, which according to the Siddhāntas lies in the ecliptic, so that it almost appears as if the *Pushya* of the Sūryaprajñapti were an altogether different asterism. From among the twelve nakshatras said to stand always north of the moon ten (*Abhijit*, *Sravaṇa*, *Sṛaviṣṭhā*, *Pūrva-Bhādrapadā*, *Uttara-Bhādrapadā*, *Aśvinī*, *Bharanī*, *Pūrva-Phālgunī*, *Uttara-Phālgunī*, *Svāti*) may be identified with the nakshatras of the Siddhāntas whose latitudes—excluding *Abhijit*—vary from  $9^{\circ}$  to about  $39^{\circ}$  north. Strange it is only that these nakshatras occupying a zone of about  $21^{\circ}$  breadth are said to be in one and the same circle of the moon, and still stranger that *Abhijit* too is classed among them, the latitude of the latter—if identical with the *Abhijit* of the Siddhāntas—exceeding the latitudes of the other nakshatras, with which it is here thrown into one class, by about  $30^{\circ}$ . The *Satabhishaj* and *Revatī* of the Siddhāntas are situated in and close to the ecliptic; here too therefore we might doubt if the Sūryaprajñapti denotes by these two names the same stars as the Siddhāntas. The remaining nakshatras may be identified with those of the Siddhāntas, the latitude of none of the latter much exceeding the greatest latitude reached by the moon; a considerable margin must of course be allowed for the inaccuracy of the observations on which the statements of the Sūryaprajñapti are based. Quite unfounded is the statement about the moon always passing right through *Jyeshṭhā*; it looks as if it had originated at some period when one of the moon's nodes had about the same longitude as that asterism.

The order of succession of the nakshatras is treated in X. 1. Of five different *pratipattis* regarding this point the author details only one, *viz.*, that one according to which *Kṛittikā* stands first. The author of the Sūryaprajñapti for his part calls *Abhijit* the first nakshatra, since according to his system at the beginning of the yuga on the day of the summer solstice early in the morning the moon which is full at that time stands in *Abhijit*. He therefore altogether abandons the principle, sometimes followed, according to which the enumeration of the nakshatras begins with that nakshatra in which the sun stands on the day of the vernal equinox; if he too had chosen this principle he would of course have begun his enumeration with *Aśvinī*. It may here be mentioned by the way that the Sūryaprajñapti does not occupy itself at all with the equinoxes, the name of which is not even mentioned in the whole work.

We now proceed to consider some specimens of the numerous cal-

culations, rules for the performance of which are contained in the Śúryaprajñapti itself as well as in a great number of old *karana-gáthás* quoted by the commentator; remarking at once that the rules contained in the *gáthás* presuppose exactly the same system as the rules of the Śúryaprajñapti itself. A comparison of these calculations with those contained in the *vyotisha-vedānga* shows the extreme likeness and in many cases the complete identity of the two sets; a result which supplies another reason for looking on the Śúryaprajñapti as—in all essential points—a fair representative of Indian astronomy anterior to the period of the *Siddhántas*. Several of these calculations have already been reproduced above incidentally; in the following a detailed account of the more important ones among those not yet touched upon will be given.

It appears that before the influence of Greek astronomy made itself felt in India, the division of the sphere into 27 or 28 *nakshatras* was the only one employed and that no independent subdivisions of the *nakshatras* were made use of. This want was, however, supplied by a simple transfer of the subdivisions of time to the *nakshatras*. In accordance with this principle the Śúryaprajñapti divides the sphere into  $819 \frac{27}{67}$  *muhúrtas*, this

being the duration of the periodical revolution of the moon, and allots to each *nakshatra* a certain number of *muhúrtas* according to its greater or smaller extent. Fixed subdivisions of the *muhúrta* such as are commonly met in Indian astronomical works are, however, nowhere employed by the author of the Śúryaprajñapti; he apparently preferred to keep himself perfectly free from restrictions of this kind and uses throughout those fractions of the *muhúrta* only which were immediately suggested by the various calculations in hand. From the general nature of the *yuga* it is manifest at once which fractions will present themselves most readily; they are sixty-seconds and sixty-sevenths ( $62 =$  number of synodical months in a *yuga*,  $67 =$  number of periodical months) and, whenever lunar months of both kinds enter into the calculations, sixty-sevenths of sixty-seconds.

One of the most important rules is that which teaches how to find the place of the moon on any *parvan*. In the following the details of the calculation furnished by the commentator will be stated in *extenso*, so that at least one complete specimen of computations of this kind may be exhibited.—If we wish to devise a rule for calculating the place of the moon in the circle of the *nakshatras* at any *parvan*, we must at first find the constant quantity—the *dhruvarási*—entering as a multiplicand into all calculations of this kind. This in our case is clearly the space passed through by the moon during the lunar month, or more simply, because entire revolutions which bring the moon back to the same place can be neglected, the excess of the lunar synodical month above the periodical

month. From what is known about the general constitution of the yuga this quantity is of course readily found to be equal to  $66 + \frac{5}{62} +$

$\frac{1}{62 \times 67}$ . The commentator calculates this quantity as follows. If the sun performs during 124 parvans five complete revolutions, how much does he perform during 2 parvans (= one synodical month); answer:  $\frac{5 \times 2}{124} =$

$\frac{5}{62}$  rev. This therefore is the excess of the synodical month above the periodical one. In order that the division can be carried out, the  $\frac{5}{62}$  rev.

are turned into nakshatras by multiplying them by  $\frac{1830}{67}$  (i. e. by  $27 \frac{21}{67}$ ,

the duration in ahorátras of the periodical month or, if we like, the extent of the nakshatras; 27 entire nakshatras plus the fractional nakshatra Abhijit). Result of the multiplication  $\frac{9150}{4154}$ . Again—in order to

turn the days or nakshatras into muhúrtas—the numerator is multiplied by 30. Result =  $\frac{274500}{4154}$ . This division being performed gives as result

66 muhúrtas. The remainder 336 is multiplied by 62 and the product again divided by 4154. Result =  $\frac{5}{62}$  muhúrtas. The remainder—62—

should again be multiplied by 67 (the fractions employed being throughout sixty-seconds and sixty-sevenths) and divided by 4154; but 4154 being itself =  $62 \times 67$ , it is seen at once that the result is 1. Thus the

whole quantity is  $66 + \frac{5}{62} + \frac{1}{62 \times 67}$  muhúrtas. If now the place of

the moon at any amávasyá or púrñamásí is wanted, the above quantity has to be multiplied by the number of the parvan; for instance, by one if the moon's place at the first full moon after the beginning of the yuga is wanted. The product shows how far the moon at the time has advanced beyond the place she had occupied at the beginning of the yuga, if full moons are concerned, or beyond the place she had occupied at the new moon preceding the beginning of the yuga, if new moons are concerned, (the new moon immediately antecedent to the beginning of the yuga having been selected as starting-point for all calculations concerning new moons). So far the place of the moon is expressed in muhúrtas only; now in order to find from these the nakshatra in which the moon stands at the time, we should

have to deduct from the muhúrtas found the extent of all the nakshatras through which the moon has passed one after the other, until the sum would be exhausted. Thus, for instance, if we wanted to find the place of the moon at the third new moon after the beginning of the yuga, the constant quantity  $66 + \frac{5}{62} + \frac{1}{62 \times 67}$  would have to be multiplied by 3, so that we should have  $198 + \frac{15}{62} + \frac{3}{62 \times 67}$  muhúrtas. Now the moon standing at the new moon preceding the beginning of the yuga in Punarvasu, of which she has still to pass through  $22 \frac{46}{62}$  muhúrtas, we should have to deduct this last quantity from  $122 + \frac{10}{62} + \frac{2}{62 \times 67}$ ; from the remainder we should have to deduct 80 muhúrtas (the extent of Pushya); from the remainder again 15 (Āśleshá); again from the remainder 30 (Maghá), and so on, until in the end the fact of the remainder being smaller than the next following nakshatra would show that new moon takes place in that nakshatra.—In order, however, to shorten this somewhat lengthy process, certain subtrahends are formed out of the sum of the extent of several nakshatas, which materially alleviate the work by substituting one subtraction for a number of subtractions. Thus with reference to new moon—the subtrahend (śodhanaka) for Uttara-phálguní is said to be 172, for Viśákhá 292, for Uttara-áshádhá 442; *i. e.*, if from the product of the constant quantity by the number of the new moon 172 can be deducted, we see at once that the moon has advanced beyond Uttara-ashádhá; if 292 can be deducted, she has passed the limits of Viśákhá and so on. The subtrahends are not carried on from Punarvasu beyond Uttara-áshádhá, but make a fresh start from Abhijit, apparently in order to make them available for the calculation of the places of the full moons too. Thus the subtrahend for Abhijit is 9 and a fraction, of Uttara-bhádrapadá 159, of Rohiní 309, of Punarvasu 399, of Uttara-phálguní 549, of Viśákhá 669, of Múla 744, of Uttara-ashádhá 819.

The places in which the different full moons of the yuga occur are found by an exactly similar proceeding; only all calculations have to start not from Punarvasu, but from the beginning of Abhijit where the first full moon which coincides with the beginning of the yuga takes place. The text enumerates the places of all full moons and new moons of the yuga at length, carrying in each case the calculations down to sixty-sevenths of sixty-seconds of muhúrtas. It is needless to reproduce these lists here in extenso, as any place wanted can be calculated with ease from the general rule given above.

The same result, *viz.*, to find the place of the moon on a given parvan is obtained by following another rule contained in some gāthās quoted by the commentator. Their purport is as follows. Multiply sixty-seven (the number of periodical revolutions which the moon makes during one yuga) by the number of the parvan the place of which you wish to find and divide this product by one hundred and twenty-four (the number of parvans of one yuga). The quotient shows the number of whole revolutions the moon has accomplished at the time of the parvan. The remainder is to be multiplied by 1830 (*viz.*, 1830 sixty-sevenths which is the number of nycthemera of one periodical month) or more simply by 915 (reducing 1830 as well as the denominator *viz.*, 124 by two). From the product (remainder multiplied by 915) deduct 1302, which is that part of a whole revolution which is occupied by Abhijit (Abhijit occupies  $\frac{21}{67}$  days, but as this amount

is to be deducted from the numerator of a fraction the denominator of which is 62, 21 is to be multiplied by 62; product = 1302). The portion of Abhijit, from which the moon's revolutions begin, is deducted at the outset, because it is greatly smaller than the portion of all other nakshatras and would disturb all average calculations. After it is has been deducted the remainder is divided by  $67 \times 62$ ; the quotient shows the number of nakshatras beginning from Śravaṇa which the moon has passed through, in addition to the complete revolutions. The remainder is again multiplied by thirty, the product divided by 62; the quotient shows the number of muhūrtas during which the moon has been in the nakshatra in which she is at the time. And so on down to small fractions of nakshatras. The following is an example. Wanted the place of the moon at the end of the second parvan. Multiply 67 by 2; divide the product by 124. The quotient (1) indicates that the moon has performed one complete periodical revolution. The remainder (10) is multiplied by 1830 or more simply by 915 (see above); from the product (9150) the portion of Abhijit (1302) is deducted. The remainder (7848) is divided by  $67 \times 62 = 4154$ ; the quotient (1) shows that after Abhijit the moon has passed through one complete nakshatra, *viz.*, Śravaṇa. The remainder (3694) is multiplied by 30; the product (110820) again divided by 4154; the quotient (26) shows that the moon has moreover passed through 26 muhūrtas of Śravishṭhā. By carrying on this calculation we arrive at the result that at the end of the second parvan the moon stands in Śravishṭhā, of which she has passed through  $26 + \frac{42}{62} + \frac{2}{62 \times 67}$  muhūrtas.

Analogous calculations are made for the sun too. For instance, in what circle does the sun move at the time of each parvan? The rule here is very simple. Multiply the number of the parvan by fifteen (the number

of tithis of one parvan) and from the product deduct the number of avamātrās (excessive lunar days) which occur during the period in question. If the parvan occurs during the first ayana of the sun, the remainder immediately indicates the number of the solar circle which is in fact the same as the number of the civil day on which the parvan happens; if the parvan takes place during one of the other nine ayanas, the remainder must at first be divided by 183 (number of circles described by the sun during one ayana); etc. The rule is simple and needs no illustration.

The rule for finding the nakshatra in which the sun stands at the time of each parvan (the sūryanakshatra) is quite analogous to the rule given above for the moon. The sun makes in one yuga five complete revolutions, in one parvan  $\frac{5}{124}$  revolutions. This quantity is to be multiplied by the number of the parvan and then we have as above to descend by continued multiplication and division to nakshatras, sixty-second parts of nakshatras and sixty-seventh parts of sixty-second parts. Instead of deducting the portion belonging to Abhijit at the beginning of which the moon stands on the first day of the yuga, we have to deduct that part of Pushya which the sun has not yet passed through at the beginning of the yuga; it amounts to  $\frac{44}{67}$  of a nychthemeron. All the remainder of the calculation is the same as in the moon's case and illustrative examples are therefore not wanted.

Besides there is another and considerably simpler method for finding the sun's place at the end of a parvan; it is likewise contained in some old *karana-gāthās*. The rule again assumes a "dhrubarāśi", a constant quantity, to be used in all calculations of this kind. This quantity is  $33 + \frac{2}{62} + \frac{34}{62 \times 67}$  muhūrtas; for if we divide the whole circle of the nakshatras into  $819 \frac{27}{67}$  muhūrtas (which is the time occupied by a complete revolution of the moon) the above amount expresses the way the sun accomplishes during one parvan. This quantity has therefore to be multiplied by the number of the parvan required, and by subtracting from the product at first the  $19 + \frac{48}{62} + \frac{33}{67 \times 62}$  muhūrtas belonging to Pushya, after that the 15 muhūrtas of *Āśleshā*, after that the 30 muhūrtas of *Maghā* etc., we find in the end the nakshatra in which the sun completes the parvan. In order to facilitate these somewhat lengthy subtractions, the muhūrtas of a certain number of nakshatras are again added and presented in a tabular form. So for instance 139 muhūrtas ( $19 + 15 + 30 + 30 + 45$ ) lead us up to

the end of Uttara-phālgunī, and if therefore the product found in the manner shown above exceeds 139, we may at once subtract 139 instead of performing five separate subtractions and know that the sun has at the time passed beyond Uttara-phālgunī. The procedure is analogous to the one described above and needs no further illustration.

For finding how many seasons have elapsed on a certain tithi, the commentator quotes some gāthās of the old teachers. The rule they contain is as follows. Multiply the number of the parvans which have elapsed since the beginning of the yuga by fifteen, and add to the result the number of tithis which have elapsed in addition to the complete parvans; deduct from this sum its sixty-second part; multiply the remainder by two and add to the product sixty-one; divide the result by one hundred and twenty-two; the quotient shows the number of seasons elapsed (which when exceeding six will have to be divided by six, since so many seasons constitute a solar year); the remainder divided by two shows the number of the current day of the current season. This rule seems not very well expressed, although it may be interpreted into a consistent sense. At first it must be remembered that the yuga does not begin with the beginning of a season, but with the month śrāvāṇa, while the current season—the rainy season—has begun a month earlier with āśhāḍha. The calculation would then, strictly expressed, be as follows. Take the number of parvans which have elapsed since the beginning of the yuga, add to it the tithis which have elapsed of the current parvan and add again to this sum  $30\frac{1}{2}$  tithis (the tithis of āśhāḍha plus half a tithi of the month preceding āśhāḍha) and deduct from this sum its sixty-second part, *viz.*, the so-called avamarātra, *i. e.*, the lunar days in excess of the natural days (according to the Śūryaprajñapti's system each sixty-second tithi is an avamarātra). The remainder of the calculation needs no explanation; the formula enjoins the addition of 61 instead of  $30\frac{1}{2}$  and division by 122 instead of 61 (the number of days of a season) in order to get rid of the fractional part of  $30\frac{1}{2}$ .

In order to find the number of the parvan during which an avamarātra occurs and at the same time the tithi itself which becomes avamarātra, the following rule is given. The question is assumed to be proposed in the following manner. In what parvan does the second tithi terminate while the first tithi has become avamarātra, or in what parvan does the third tithi terminate while the second is avamarātra? and so on, (kasmin parvani pratipady avamarātrībhūtāyām dvitīyā samāptim upayāti, etc.) The answer is: if the number of the tithi which becomes avamarātra is an odd one, one has to be added to it and the sum to be multiplied by two; the result shows the number of parvans elapsed before the first tithi becomes avamarātra. If the number is an even one, one is added to it, the sum multiplied by two, and to the product thirty-one is added; the result again shows the

number of parvans elapsed. Thus for instance if it is asked: when does the first tithi become avamarātra? add one to one (number of the tithi) result two; this multiplied by two gives four; therefore pratipad is avamarātra in the fifth parvan, after four parvans have elapsed. Or again it may be asked: when does the second tithi become avamarātra? add one to two; result three; this multiplied by two gives six, to which thirty-one are added. The result—thirty-seven—shows that in the thirty-eighth parvan the second tithi is avamarātra. Thus all the avamarātras for the first half of the yuga are found and the same numbers recur during the second half. The rationale of this rule is obvious.

A simple rule is given for finding the tithis on which the ávrittis of the sun, *i. e.*, the solstices take place. Multiply the number of the solstice whose date you wish to know by 183 and add to the result three plus the number of the solstice; divide this sum by fifteen; the quotient shows the number of parvans elapsed, the remainder the number of the tithi of the current parvan. This rule—being based on the relation of tithis to sāvana days needs no explanation. The following list for the whole yuga results from these calculations.

1st Summer solstice (= 10th solstice of the preceding yuga).

|                           |                            |
|---------------------------|----------------------------|
|                           | 1st dark half of śrávāṇa.  |
| 1st Winter solstice,..... | 7th " " " mágha.           |
| 2nd S. S.,.....           | 13th " " " śrávāṇa.        |
| 2nd W. S., .....          | 4th light half of mágha.   |
| 3rd S. S.,.....           | 10th " " " śrávāṇa.        |
| 3rd W. S., .....          | 1st dark half of mágha.    |
| 4th S. S.,.....           | 7th " " " śrávāṇa.         |
| 4th W. S., .....          | 13th " " " mágha.          |
| 5th S. S.,.....           | 4th light half of śrávāṇa. |
| 5th W. S., .....          | 10th " " " mágha.          |

The places which the sun occupies in the circle of the nakshatras at the time of the solstices have been mentioned before; the places of the moon at the same periods can of course be easily calculated when it is remembered that at the beginning of the yuga the moon just enters Abhijit. It is unnecessary to reproduce here the rule given for that purpose; it may only be mentioned that the  $\frac{7}{10}$  of a sidereal revolution which the moon

performs during one solar ayana in excess of six complete revolutions constitute the "dhruva rāsi" for our case. The Sūryaprajñapti likewise states the places in which the lunar ávrittis take place; from the circumstance that at the beginning of a yuga the moon is full in the first point of Abhijit and at the same time commences her progress towards the north, it follows



that her next progress towards the south takes place exactly on the same spot on which the sun was standing at the beginning of the yuga. At all following lunar ávrittis the places of the two first ones of course recur.

Incidentally another rule is mentioned which certainly was of frequent application, *viz.*, how to find on what natural day and at what moment of time during that day a given tithi terminates. The rule which is contained in an old *karana-gáthá* is of course very simple. Add together all tithis which have elapsed from the beginning of the yuga up to and including the tithi in question; divide this sum by sixty-two; multiply the remainder by sixty-one and divide again by sixty-two. The remainder is then the wanted quantity. The first division by sixty-two has the purpose to shew by its quotient—the number of complete *avamarátras* elapsed since the beginning of the yuga; this number has therefore to be deducted from the number of tithis elapsed. The remainder of the above division shows the number of tithis which have elapsed since the occurrence of the last *avamarátra*; to find by how much they remain behind the same number of natural days, they are multiplied by 61 and divided by 62 (61 natural days = 62 tithis); the remainder then indicates how many sixty-second parts of the current natural day have elapsed at the moment when the tithi in question terminates.

Another old rule has the purpose of teaching how to find the number of *muhúrtas* which have elapsed on the *parvan-day* at the moment when the new *parvan* begins. When the number of the *parvan* divided by four yields one as remainder (in which case it is called *kaly-oja*) we must add ninety-three to it; if divided by four it yields two (in which case it is called *dvápara-yugma*), we add sixty-two to it; if it yields three (*tretá-oja*), we add thirty-two; if there is no remainder (*kṛita-yugma*), we add nothing. The sum which we obtain in each case is halved, then multiplied by thirty, finally divided by sixty-two. The quotient shows the number of *muhúrtas* of the *parvan-day* which have elapsed at the moment when the new *parvan* begins. The rationale of this rather ingenious rule is as follows. The

duration of one *parvan* is  $14 \frac{94}{124}$  days. The first *parvan* therefore terminates when  $\frac{94}{124}$  of the day =  $\frac{94 \times 30}{124} = \frac{47 \times 30}{62}$  *muhúrtas* have elapsed. The number 94 may be obtained by adding 93 to 1, the number of the first *parvan*. The second *parvan* ends  $29 \frac{64}{124}$  days after the beginning of the yuga; 64 equals 62 + 2, the number of the second *parvan*. The third *parvan* terminates  $44 \frac{34}{124}$  days after the beginning of the yuga; 34

equals 81 + 3, the number of the third parvan. The fourth parvan terminates  $59 \frac{4}{124}$  days after the beginning of the yuga ; 4 without any addition is the number of the parvan. The fifth parvan again terminates  $73 \frac{98}{124}$  days after the beginning of the yuga ; 98 is equal to 93 + 5, the number of the parvan. And so on through the whole yuga.

The above examples fairly represent the more important rules contained in the Sūryaprajñapti. Now it will be apparent to every one who is to some extent familiar with the Jyotisha-vedāṅga\* that the rules contained in the, as yet partly unexplained, verses of the latter refer to calculations exactly analogous to those contained in the Sūryaprajñapti and the old gāthās quoted by the commentator.

From this it might be concluded that it is now easy for us to explain whatever has up to the present remained unexplained in the Vedāṅga, possessing as we doubtless do a clear insight into the general nature of the calculations for which it furnishes rules. But close as the connexion between the contents of the two treatises manifestly is, there are two reasons which preclude the direct application of the rules of the Sūryaprajñapti to the elucidation of the Vedāṅga. In the first place the Vedāṅga divides the sphere into twenty-seven nakshatras only and, as far as has been ascertained up to the present, these twenty-seven nakshatras are considered to be of equal extent ; while as we have seen above the Sūryaprajñapti throughout employs the division of the sphere into twenty-eight nakshatras of unequal extent. In the second place the starting point for all calculations (*viz.*, the places of the winter and summer solstices) is not the same in the two works. The consequence of these two fundamental discrepancies is that although the questions treated of are essentially the same and although the modes of calculation are strictly analogous the results arrived at in the two treatises necessarily differ in all cases, that for instance the place of a certain full or new moon during the quinquennial yuga can never be the same according to the Sūryaprajñapti as it is according to the Vedāṅga, etc. Nevertheless it is highly probable that somebody who should apply himself to the study of the obscure portions of the Vedāṅga after having made himself thoroughly conversant with the contents and methods of the Sūryapra-

\* Since the publication of the paper on the Jyotisha-vedāṅga in the 46th volume of this Journal, the writer has received some very important contributions to the explanation of the Vedāṅga from Dr. H. Oldenberg, the well-known editor of the Vinayapīṭakam, who working altogether independently had succeeded in explaining a number of hitherto obscure rules. The writer intends to revert to the Vedāṅga before long and will then avail himself of the new results most kindly placed at his disposal by Dr. Oldenberg.

jñapti, would succeed in solving some more of the riddles presented to us by the former work.

It must be remembered that there is no indissoluble connexion between that part of the system of the Sūryaprajñapti, which might be called the chronometrical one, *viz.*, the doctrine of the quinquennial yuga and its various subdivisions and that part which propounds the theories accounting for the apparent motions of the sun and the moon; it might therefore be that the Vedāṅga agrees with the Sūryaprajñapti only in the former point and follows a different course with regard to the latter. There occurs, however, one expression in the Vedāṅga which makes it appear likely that the analogy between the two books extends to the second point also, *viz.*, the "sūryamaṇḍalāni" mentioned in verse 22.

वर्तीतपर्वभागेभ्यः श्रावयेद् दिग्गुणां तिथिम् ।

तेषु सण्डलभागेषु तिथिभिर्द्धां जतो रविः ॥

It certainly looks as if by these "sun circles" in which the sun is said to be at the end of a tithi, we had to understand daily circles of the same kind as those which, according to the Sūryaprajñapti, the sun describes round Mount Meru.

A few words may here be added on the principal feature common to the cosmological systems of the Purāṇas, Buddhists and Jinas, *viz.*, the doctrine of sun, moon and constellations revolving round Mount Meru. In order rightly to judge of these conceptions we must remember that they arose at a time when the idea of the sphericity of the earth had not yet presented itself to the Indian mind, at a time (—if we may assume that the Purāṇic-Buddhistic cosmological system is not later than the period of the rising of Buddhism—) when this then truly revolutionary idea first suggested itself to the early Greek philosophers. And if we carry our thoughts back to that early stage of the development of scientific ideas and try to realize the conceptions which then were most likely to present themselves to enquirers, the old Indian system will lose much of its apparent strangeness and arbitrariness. How indeed could men ignorant of the fact that the earth is a sphere freely suspended in space explain to themselves the continually recurring rising and setting of the heavenly bodies? what could their ideas be regarding the place to which sun and moon went after their setting, and the path which unseen by man they followed so as to return to the point of their rising? Certainly the difficulty was a very great one to those as well who had some vague notion about the earth extending in all directions to an unlimited distance as to those who imagined it to be bounded at a certain distance by a solid firmament surrounding and shutting it in on all sides. We may recall, as one of the fancies to which the difficulty of this question gave rise, the old poetical idea, pre-

served, for instance, in a beautiful fragment of Stesichorus, of Helios when he has reached Okeanos in the west embarking in a golden cup which carries him during the night round half the earth back to the east whence he rises again. Under these circumstances we must admit that the old Indian idea of the constitution of the world, according to which the rising and setting of sun, moon and stars is only apparent, cannot by any means be called an unnatural one, and it is interesting to consider the counterparts it finds among what is known of the opinions of the oldest Greek philosophers.\* So it is reported of Anaximenes that he supposed the sun not to descend below the earth, but to describe circles above it and to pass during the night behind high mountains situated in the north; an exact parallel to the Indian conception. Of Xenophanes we hear that he declared the sun, moon and stars to be only accumulations of burning vapour, fiery clouds kindling and extinguishing themselves by turns, that these clouds move in reality in straight lines and only appear to us to rise and to set in consequence of their varying distance, in the same way as the common clouds seem to rise from the horizon when they first become visible to us and seem to sink under the horizon when they pass out of our field of vision. These opinions too find their exact counterpart in the *Sūryaprajñapti* and kindred works where the rising and setting of the heavenly bodies is declared to be an appearance caused by their consecutive approaching and receding, and where their movement is said to take place not indeed in a straight line but at any rate in a plane parallel to the plane of the earth. The first mentioned opinion of Xenophanes about the constitution of the heavenly bodies finds its analogon in one of the different *pratipattis*, mentioned in the *Sūryaprajñapti*, according to which the sun is nothing but a “*kiraṇasamghāta*,” an accumulation of rays forming itself every morning in the east and dissolving itself in the evening in the west. The cognate views held by Heraclitus concerning the nature of the sun are well known. Of Xenophanes it is further reported that he supposed different climes and zones of the earth, far distant from each other, to have different suns and moons; which is another striking parallel to the view held by the Jainas with reference to the different suns, moons and stars illuminating the different concentric *dvīpas* of which the earth consists. In both cases the assumption of the rising and setting of the heavenly bodies being an appearance, caused by their becoming visible and invisible in turns when having approached us or receded from us by a certain amount, seems to have led to the conclusion that the light of the one sun and the one moon appearing to us cannot illumine the whole vast earth, since it only reaches to a certain limited

\* For the particulars mentioned in the following: comp. Mullach's collection of the fragments of the Greek philosophers, Zeller's history of Greek philosophy, Lewis's historical survey of the Astronomy of the Ancients.

distance.—On the other hand it is true enough that, notwithstanding these similarities of Indian and Greek ideas, books of the nature of the *Sūryaprajñapti* serve clearly to show the difference of the mental tendencies of the two nations. Both in an early age conceived plausible theories, in reality devoid of foundation, by which they tried to account for puzzling phenomena; but while the Greeks controlled their theories by means of continued observation of the phenomena themselves and replaced them by new ones, as soon as they perceived that the two were not in harmony, the Hindus religiously preserved the generalisations hastily formed at an early period, and instead of attempting to rectify them, proceeded to deduce from them all kinds of imaginary consequences. The absurdity of systems of the nature of the Jaina system lies not in the leading conceptions—these can as a rule be accounted for in a more or less satisfactory manner—but in the minute detail into which the followers of the system have without scruple and hesitation worked it out.

Before this paper is brought to a conclusion, the writer wishes to draw attention to the—in his opinion very striking—resemblance which the cosmological and astronomical conceptions, contained in an old Chinese book, bear to the early Indian ideas on the same subject, more particularly to the Jaina system as expounded in the *Sūryaprajñapti*. The Chinese book alluded to is the *Tcheou-Pei* of which a complete translation was published for the first time by Edward Biot in the *Journal Asiatique* for 1841, pp. 592—639. It consists of two parts of different ages; the first part which apparently is of considerable antiquity, has been known since the time of Gaubil, who inserted a translation of it into his history of Chinese astronomy, published in the *Lettres édifiantes*; that part, as is well known, shows that the ancient Chinese were acquainted with the theorem about the square of the hypotenuse of a right-angled triangle. The second and more recent part, which E. Biot thinks cannot be later than the end of the second century of our era, contains a sort of cosmological and astronomical system, and here the traits of resemblance alluded to above are to be found. As the arrangement of topics in the *Tcheou-Pei* is by no means systematic, so that it is not easy to form a clear conception of the essential points, a short abstract of the work, as far as it lends itself to a comparison with the Jaina system, is given in the following.

According to the *Tcheou-Pei* the sun describes during the course of the year a number of concentric circles of varying diameter round the pole of the sky. On the day of the summer solstice the diameter of this circle is smallest; it then increases during the following months, up to the day of the winter solstice when it reaches its maximum. Beginning from this day the solar circles again decrease, until on the day of the next summer

solstice they have reached the original minimum. On the day of the winter solstice the diameter of the solar circle amounts to 476,000 li (the li is a certain Chinese measure of length); its circumference to  $3 \times 476,000 = 1,428,000$  li. The corresponding numbers for the circle, described on the day of the summer solstice, are 238,000 and 714,000. Between the innermost and the outermost circle there lie five other circles, which the sun describes in the months intervening between the two solstices, so that there are altogether seven circles; the six intervals between these are said to correspond to the months of the year ( $2 \times 6 = 12$ ). So it appears that the Tcheou-Pei assumes separate solar circles for each month only, not for each day. Each circle is at the distance of  $19,833\frac{1}{2}$  li from the two neighbouring circles.

The terrestrial place for which all the calculations of the Tcheou-peï are made is said to have such a situation that it is distant 16,000 li from the spot lying perpendicularly under the sun on the day of the summer solstice and 135,000 li from the spot lying perpendicularly under the sun on the day of the winter solstice; the distance of the place of observation from the pole, *i. e.*, the spot at the centre of the earth which lies perpendicularly under the celestial pole, is said to amount to 103,000 li. Round the terrestrial pole there extends a circle of 11,500 li radius, which is the terrestrial counterpart of the circle described by the polar star round the celestial pole. The light of the sun extends 167,000 li in each direction, so that on the day of the winter solstice when the sun moves in the exterior circle it extends at midday only 32,000 li beyond the place of observation and so does not reach up to the polar circle. On the days of the two equinoxes when the sun is moving in the fourth circle—the diameter of which amounts to 357,000 li—the rays of the sun just reach up to the polar circle. On the day of the summer solstice when the sun moves in the interior circle his rays reach beyond the pole to the extent of 48,000 li, so that then the whole polar circle is continually illuminated. When the sun in his daily revolution has reached the extreme north point, it is midday in the northern region and midnight in the southern region; when he has reached the east point, it is midday in the eastern, midnight in the western region; when he has reached the south point, it is midday in the southern, midnight in the northern region; when he has reached the west point, it is midday in the western, midnight in the eastern region. As the light of the sun always reaches 167,000 li each way, we must add  $2 \times 167,000$  to the diameter of the circle, described on the day of the winter solstice, in order to obtain the diameter of the circle representing the outmost limit reached by the rays of the sun; the diameter of this circle is therefore 810,000 li.

On the day of the winter solstice the space illuminated by the sun

stands to the space not reached by his rays in the relation of three to nine ; this proportion is to be reversed for the day of the summer solstice. The day of the winter solstice is the shortest during the year ; the day of the summer solstice the longest. On the day of the winter solstice the shadow of the gnomon is 13·5 feet long ; beginning from this day it goes on diminishing by equal quantities during equal spaces of time up to the day of the summer solstice when its length is reduced to 1·6 feet. It then increases again in the same uniform manner up to the day of the next winter solstice.

The circumference of the sky is divided into twenty-eight stellar divisions of unequal extent, through the circle of which sun and moon are performing their revolutions. Kien-nieou is the asterism in which the sun stands at the winter solstice ; Leou the asterism of the vernal equinox etc. A procedure is taught how to find the place of the sun at any time. The whole circle of the asterisms is divided into  $365\frac{1}{4}$  degrees corresponding to the number of the days of the year. A year is the period which the sun requires for returning to the same star from which he had set out. The meeting of sun and moon constitutes a month. A period of nineteen years of  $365\frac{1}{4}$  days each contains 235 lunations. Arithmetical rules are given how to find the place of the moon at the beginning of each year etc.

The Teheou-pei contains some additional matter about observations of the polar star etc., but by far the greater part of the topics it treats have been touched in the above summary. The similarity of this system and the old Indian systems particularly, as far as some details are concerned, the Jaina system is obvious. The same supposition is made use of in both to account for the alternating progress of the sun towards the north and the south. In the Jaina system the sun revolves round Mount Meru, in the Chinese system, to which the idea of a central mountain seems to be foreign, round the pole of the sky ; Mount Meru finds, however, a curious counterpart in the Chinese polar circle, the projection of the circle described by the polar star. Both systems state the dimensions of the circles described by the sun ; both state in figures the extent to which the rays of the sun reach. Both hold the same opinion about the alternation of day and night in the different parts of the earth. Both are interested in finding out what places sun and moon occupy in the circle of the nakshatras. Both teach the increase of the shadow by an equal quantity in each month. On the other hand there are important points in which the two systems differ. The Chinese appear from comparatively ancient times to have had a knowledge of the fact that the approximate duration of the solar year amounts to  $365\frac{1}{4}$  years and that a period of nineteen years comprises 325 lunations. This of course makes the system of the Teheou-pei to differ from the Jaina system in all those details which depend on the fundamen-

tal period and the advantage is of course altogether on the side of the Chinese. On the whole the Tcheou-pei is much superior to works of the stamp of the Sūryaprajñapti, as in midst of all the fantastical and unfounded ideas it contains there are found some positive elements, observations of stars which admit of control etc., features altogether absent in the Sūryaprajñapti. But in spite of these points of difference the similarities of the two works remain striking, especially if we take as one member of the comparison not the Sūryaprajñapti itself but some hypothetical older work of the same class, less elevate and more moolerate in the statement of dimensions, figures etc. That such works if not existent at present must have existed at same earlier period is manifest from the remarks the Sūryaprajñapti in many places makes about the opinions of other teachers, several of which have been extracted above. That two different chronological periods, the quinquennial yuga and so called Metanic cycle, from the foundation of the two systems does after all not interfere very much with their similarity. We might imagine the Jainas adopting the more correct cycle of nineteen years instead of the quinquennial one and work out all the new details necessitated by such a change, calculate all the places of moon and full moon during nineteen years instead of five etc., nevertheless the new system would immediately suggest the idea of the old one. An essential feature in the resemblance of the Chinese and the Hindu system is more over the circumstance of both limiting themselves to the treatment of a certain number of topics. The following paragraph of the Tcheou-pei (p. 603) which shortly states the questions to be treated in the work, might with hardly any change be taken as a summary of the contents of the Sūryaprajñapti.

“I have heard people speak of the knowledge of the great man. I have heard it said that he knows the height and the size of the sun, the extent which his light illuminates, the quantity by which he moves in the course of one day, the quantity by which he recedes and approaches, the extent which the eye of man embraces, the position of the four extreme (cardinal) points, the divisions of the stars arranged in order, the breadth and length of the sky and the earth.”

The question whether the similarity of the two systems justifies us in assuming a historical connexion between the two or would be an interesting one, but cannot be treated in this place, especially as its solution could only be attempted together with the solution of a number of cognate problems.





*Coins supplementary to Thomas' "Chronicles of the Pathán kings of Delhi."*—By CHAS. J. RODGERS. (With a Plate.)

Steady research is always followed by constant results. These results are as a rule insignificant discoveries which are individually small, but collectively they all go to swell the sum of human knowledge. In my last small supplement to Thomas' "Chronicles of the Pathán kings of Delhi" I promised to give some additions which I had then in hand. But as I went on with two other papers and my researches for them, I found that incidentally my matter for the second supplement grew more interesting, and at last I found to my surprise that I had more coins in hand than would fill two plates; so I began to draw at once and simultaneously to put away for a third supplement all coins for which I could not now find a place. Strange to say just as I had made up my mind about these plates a find of about 500 coins of five Ghazni kings, all struck at Lahore, came to hand, some quite new and unpublished, and after that a batch of silver coins of Ala-uddin Khwárizmí of whose coins I gave three new types in my first supplement and of whose I give one great beauty in my present paper. These silver coins were struck at *Ghazni* and *Farwán* or as Thomas calls it '*Perwán*.' He gives no drawings of them and only alludes to them as giving us the mint of *Perwán*. These Ghazni kings' and the Khwárizmí king's coins must stand over for the present. I scarcely dare make a promise about them. About a year ago I came across a find of Ghazni coins, in number about 500, and up till now I have had no time to work at them and say what was in them, although there were several novelties of historic value. As I personally go to the bazars I see for myself what comes into them. And when I see what comes into them and what finds a lodgement in our museums, I am astonished and dumb-founded to think that coins of whose existence we are unaware are daily being brought in from the villages and fields and ruins which abound here and there in the country and are simply handed over to the smelting pot as common silver,—bullion in fact which is purchased at a little less than its intrinsic value. And all this, while there is in India no Imperial Cabinet of Coins and no one appointed to collect for it and arrange it and make it a thing worthy of the historical associations, India as an Empire and as a collection of ancient kingdoms and states, possesses. India is a continent: but it is too poor to possess one Imperial Cabinet of coins which would serve as a metallic record of past emperors and rulers, past glories and shames, in fact, which would be a history of the past in metal manuscripts. With the present rage for melting down

everything it is high time something were attempted. Our only relics will soon be empty, worn out, burnt up smelting pots.

In the present supplement the coins I give are chiefly varieties of coins already known. The inscriptions are sometimes longer than those given in Thomas: sometimes they correct his readings; sometimes the coins reveal new mints, sometimes they are quite new types of coins.

Plate I, No. 1. Obv. *Tāj ud daulat Khusrau Malik.*

Rev. Bull with new mark on its *jhūl*.

This coin is quite a new type of Khusrau Malik's coins.

No. 2. Obv. (*As sultān ul*) *Azim Tāj ud Daulat Khusrau Malik.*

Rev. Bull with new mark on its *jhūl*.

No. 3. Obv. (*Us sultān al*) *Azim Rukn ud dunyā wa ud Dīn Fīroz (Shāh).*

Rev. Remains of a horseman and his steed.

Thomas gives three coins belonging to this king (Pl. I, fig. 24, 25, 26). I ascribe these three to Rezia. The *Rukn* is unmistakable in my coin. I give in No. 4 a drawing of a coin I have, which is exactly like one of Thomas' (No. 24). A careful study of it will at once show that it reads Obv. "*Us sultān al Muazzim Rezia ud Dunyā wa ud Dīn.*" Rev. Horseman and steed, exactly like Thomas'. In my coin the *zwād* (ض) is more fully developed and it must be a coin of Rezia's.

In Pandit Ratan Narain's list of coins I find a rupee of *Rukn ud Dīn Fīroz Shāh's*. Obv. *As sultān ul 'Azim Shams ud Dunyā wa 'd Dīn, abī'l Muzaḥḥar Rukn ud Dunyā wa 'd Dīn Fīroz Shāh.* Rev. *Fī'ahd il Imām Al Mustansir, Amīr ul Mominīn, fī shahūr i san thalāth wa thalāthīn wa sita mi'ata.* In this rupee the letters of *Rukn* are exactly as in my coin. It has no margins, the date is given in the square area. This rupee is quite unique. I should very much like to know its whereabouts. Such a coin should by no means leave the country. I may add that Ratan Narain gives in his list a copper coin like mine, and, being misled by Thomas, gives also two of Rezia's coins as *Rukn ud Dīn's*. I have four coins of Rezia's of this kind, as well as four of the type I published in my last paper, and one each of Thomas' Pl. I, figs. 28 and 29. On comparing them I have no hesitation whatever in assigning Thomas' Pl. I, Nos. 24, 25, 26 to Rezia.

In my last paper I gave a coin of Sanjar and Bahrām Shāh. In it the title of *Muazzim* was given to Sanjar. In my present paper I give coins which shew that this title was given to several kings, who rejoiced however, as is shown by their numerous coins, in the title *al Azim*.

No. 5. Obv. "*As sultān ul Muazzim, Alā ud Dunyā wa 'd Dīn.*" Rev. Horseman and steed.

No. 9. Obv. *As sultān ul Muazzim Eitatomah as Sultān.* Rev. Horseman and steed and remains in Hindi of *Srī Hamīrah*.

Plate II, No. 2. Rev. *Us sultán ul Muazzim.*

Obv. *Gyás ud Dunyá wa ud Dín.*

In these three coins Alá ud Dín (Masaud Sháh) and Shams ud Dín Altamsh and Gyás ud Dín (Balban) we have the title *Muazzim*. And it comes also in No. 6 which I now proceed to describe.

No. 6. Obv. in florid Kufic "*As sultán ul Muazzim Shams ud dunyá wa 'd dín Abú 'l Muzaffar (Eltamsh?)*". Rev., in a rayed circle, the Kalimah, under which (*Al Mustansir*) *biamri 'Ulah Amír ul Mominín*. This coin weighs 62 grs. only. It is therefore a tankah. It came to hand with three *Bahá ud Dín Sám's* silver tankahs.

No. 7. A rupee of Shams ud Dín Altamsh.

Obv. "*As Sultán ul Azim Shams ud Dunyá wa 'd Dín Altamsh as Sultán Násir i Amír ul Mominín.*" Rev. *Fí ah'd il Imám Al Mustansir Amír ul Momanín.* Margin illegible alas!

No. 8. Obv. in Hindí above bull, *Samasa Dín.*

Rev. above horse *Ha* and no other letter of *Hamírah*.

This type is quite new.

No. 10. Obv. *As Sultán ul Azim Shams ud Dunyá wa 'd Dín.*

Rev. Horseman, to right of which *Eltatamsh*, and above horseman *us Sultán*. Thomas' coin had not any inscription in front of the horse. I have seen several of this type.

No. 11. Obv. (*Shams*) *ud Dunyá wa (ud Dín) Elttatamsh as Sultán.*

Rev. Horseman and *Srí Hamírah*.

No. 12. Obv. *As sultán ul 'Azim Elttatamsh as sultán.*

Rev. Horseman at charge.

No. 13. Obv. *Shams ud Dunyá wa 'd Dín Abú 'l Muzaffar us Sultán.*

Reverse, not given.

These three coins Nos. 11, 12 and 13 give more than do Thomas' Nos. 47, 46, and 48. A comparison of them with Thomas' coins will at once show the additional information these supply.

No. 14. This is the same as Thomas' No. 50, with the addition of the word *as Sultán* on the obverse plainly visible.

Nos 15, 16, 17, 18 show at one view four types of coins of Elduz, the general of Muhammad bin Sám. Three of them are binominal.

No. 15. Obv. *Muizz ud Dunyá wa 'd Dín, Abd Yalduz.*

Rev. Bull over which "*Srí Muj,*" in Hindí.

There cannot be much doubt about the reading of the Hindí. *Srí Hamírah* it cannot be. It is an attempt I think by a Musalmán at *Srí Muizz*.

No. 16. Obv. *Muizz ud Dunyá wa 'd Dín.*

Rev. *Abd Yalduz.*

There are floral ornaments about the inscriptions.

No. 17. A similar coin to *Ariana Antiqua*, Pl. XX, fig. 18, but much fuller.

Obv. "*As Sultán ul Azim Muizz ud Dunyá wa 'd Dín.*"

Rev. '*Abdu 'l Malik ul Muazzim, Táj ud Dunyá wa 'd Dín Yalduz.*

No. 18. Obv. "*As sultán ul. Muazzim Abú 'l Fath Yalduz as Sultán.*

Rev. Horseman with remnants of *Sr' Hamírah* and Star underneath horse.

Plate II. No. I. Gold Mohur of Sher Sháh. Obv. in Mahrábí area "*As Sultán Sher Sháh, khallad Allah Mulkahu.*" Rev., in square area, the Kalimah. Both margins are illegible: this is a great pity, as the coin is in every other respect one of great beauty.

No. 3. Obv.—"*Sultán Sher Sháh, zarb i Sambhal.*" Margin obliterated. Rev. not given.

No. 4. Obv.—"*Sultán Sher Sháh, zarb i Alwar.*"

These are two new mints of Sher Sháh.

No. 5. Rupee of Sher Sháh. Circular areas on both sides. Obv. "*Sher Sháh Sultán, khallad Allah &c.*

Margin:—" *Farid ud Dunyá wa 'd Dín abú 'l Muza'ffar*"

and in Hindí, *Sher Sháh*, and in Arabic figures 940. Rev. the Kalimah: Margin, the names of the four companions: and "*As Sultán ul Adil, zarb Ujain.*" This is also a new mint of Sher Sháh's.

No. 6. Rupee of Sher Sháh's: Square areas surrounded by double lines.

Obv. *Sher Sháh Sultán, khallad Allah mulkahu.*" Margin "*Farid ud Dunyá wa 'd Dín, zarb i Shergarh*, in Hindí "*Sher Sháhi.*"

Rev., kalimah in area. Margin, the names of the four companions and their titles. This coin has not been figured before. Unfortunately mine has lost a piece out of its centre and it has not been mended very cleverly. But the workmanship is very superior.

No. 7. Rupee of Kutub ud Dín Mubárah Sháh. New type.

Obverse: "*Al Imám ul Azim, Kutub ud Dunyá wa 'd Dín, Abú 'l Muza'ffar, Khalífatu'lláh.*"

Rev. central area: "*Mubárah Sháh as Sultán, ibn us Sultán Al Wásiq billah, Amír ul Momínin.*"

Margin.—"*Zarb házá il Fizzat bi Hazrat dár il Khiláfat, F' sanat, saba ashrata wa saba miáta.*

This coin has on it exactly the same as Thomas' No. 146. But his is a square piece. On Mr. Delmerick's coin are similar inscriptions, with the mint place however termed "*dár ul mulk,*" not "*dár ul khiláfat.*"

No. 8. Gold coin of Gyás ud Dín Tuglaq. This coin is the same as Thomas' No. 158. In his coin the margin stops short when it gets to the mint. This goes on three words "*fi mulk i Talang.*" It was struck in Telingana.

No. 9. A gold mohur. Rev. *Mahmúd Sháh, bin Muhammad Sháh bin Tuglaq Sháh as Sultán 752.*"

Obv. *Fi zaman i Amír ul Mominín, Gyás ud Dunyá wa 'd Dín, Abú 'l Muzaffar.*"

When Muhammad Tuglaq died, Fíroz Sháh was with him at Tatta in Scinde. Ahmad Ayáz Khwájah i Jahán set up in Dehli a boy of six years of age as king. Ferishta says that he was called Gyás ud Dín *Muhammad*, but the coin shows that his name was *Mahmúd*. On Fíroz Sháh's arrival in Dehli *Mahmúd* was deposed.

No. 10. New type of Alá ud Dín Khwárizmí's coin struck at *Kishm*. Obv. "*Kishm, Ala ud Dunya wa 'd Dín, Muhammad bin us Sultán.*" Rev. horseman by side of spear "*(A)mír.*" Above the horse "*ul Azim.*"

No. 11. Obv. "*(Saif) ud dunyá wa 'd Dín, Abú ul Muzaffar, al Hasn, bin Muhammad.*"

Rev. Bull on which "*Kirmán,*" over it in Hindí *Srí H?*"

No. 12. Obv. "*Násir ud dunyá wa 'd Dín, Abú 'l Muzaffar.*"

Rev. "*Muhammad bin Hasn Karlagh.*"

No. 13. Obv. in Hindí round a bull "*Srí Jalál ud Dín.*" On the bull in Arabic "*Kirmán.*"

Rev. Horseman over which words which may be Hindí "*Srí Hamí-rah,* but they look like Persian "*Farmán rawá.*"

These last four coins are all new types. *Kirmán*\* may be the Persian province and town. Jalál ud Dín Khwárizmí went there by way of *Mekrán* after he left India. At least so says the author of the "*Rauzat us Safa.*"

No. 14. Obv. "*Khalífatu Rabb il Alámín Kutub ud Dunyá wa 'd Dín.*"

Rev. "*Abú 'l Muzaffar Mubárah Sháh as Sultán ibn us Sultán Al wásiq billah.*"

No. 15. Obv. "*Al Mujáhid fi sabíl i 'llah Muhammad Tuglaq.*" Above, "*Abubakr;*" to right, "*Alí;*" to left "*Umr*" under "*Othmán.*"

Rev. the Kalimah in a circle. Margin: "*Zarb házá us Sikka, bi Hazrat Dehlí, fi sanat Khams asharin wa saba miata.* This coin is a very

\* Thomas identifies it with *Kurru* near Bunu. *Kishm* is I suppose the island and town at the entrance to the Persian Gulf. If so, there is no reason why *Kirmán* should not be the Persian one, except this one, that here we have coins struck in Hindí.

much better specimen than the one given in Thomas which was struck in *Dár ul Islám.*" Thomas calls his *unique*, but I have one also struck at "Dár ul Islám," and during the last five years I have seen about half a dozen of them. *Dehli* and *Dár ul Islám* were favourite mints of Muhammad Tuglaq, but I have coins of the type of No. 159 in Thomas that were struck at not only these two places, but at "*Takhtgáh i Dehli*," "*Arsa i Satgawn*," and at "*Iqlím i Tuglaqpúr urf* (known = *i. e.*) *Tirkut.*" There are coins extant which were struck at *Daulatábád.* Thus there were six mints of this one type of coins. The simply *Dehli* marked coins and the *Tuglaqpúr* and *Satgawn* types have not yet been published. Thomas' No. 173 was struck at Dehli. The Lahore Museum possesses three similar gold mohurs. Of these, two were struck in 784 and one in 785 and all at *Satgawn* in Bengal.

In Sir Alexander Burnes' "*Travels in Bukhara*" Vol. II, two plates of coins are given. This book was printed in 1834. Masson's researches in Afghanistan produced over 60,000 coins. From them Wilson compiled the *Ariana Antiqua* which contains 21 plates of coins, Grecian, Greco-Bactrian, Indo-Scythian, Sassanian and Indian. General Cunningham in his "*Coins of the Successors of Alexander in the East*" gives fourteen plates which deal only with Grecian and Greco-Bactrian coins. Late discoveries have produced so many new coins that a supplement equal in size to the original book might easily be published. The coins of each dynasty that has reigned in India supply matter enough for a volume. These coins are purchased by private individuals and of course kept in their cabinets, each new type being hailed with numismatic delight. When these private individuals go home, of course they take their acquisitions with them. So that private enterprise in Indian numismatics simply robs the country of its treasures. When a poor student wishes to see the coins about which he reads, he cannot do it. The museums have not got them. The Calcutta Museum is I am credibly informed destitute of coins. It seems to me there is only one way of meeting this difficulty. The Museums of India must have grants made to them for the purchase of coins just the same as Museums at home have. The Berlin museum gets everything good in Europe, simply because it gives good prices. Here in India those who can pay get the best coins. And if the Government of India desires that the museums should possess cabinets of coins, men must be appointed and money granted, or nothing will ever be done except opportunities lost.

I have shown above how our knowledge of the different kinds of coins has increased. What I desire to see is an increase in the number of coins in our museums.

*Copper Coins of Akbar. By CHAS. J. RODGERS, Amritsar.*

(With two Plates.)

In this paper I propose first to make a list of the coins I have drawn in the two plates accompanying this paper and secondly to offer a few remarks which seem to suggest themselves from a study of the inscriptions on the coins.

No. Wt. in gra.

|    |     |                                                                                                               |
|----|-----|---------------------------------------------------------------------------------------------------------------|
| 1  | 108 | { Obv. <i>Do tánke i Akbar Sháhi.</i><br>Rev. <i>Zarb i Agrah, (Shahrevar ?) 50 Ilahí.</i>                    |
| 2  | 109 | { Obv. <i>Do tánke i Akbar Sháhi.</i><br>Rev. <i>Zarb i Agrah, Azr 46 Ilahí.</i>                              |
| 3  | 59  | { Obv. <i>Yak tánke i Akbar Sháhi.</i><br>Rev. <i>Zarb i Láhor (?) 46 Ilahí.</i>                              |
| 4  | 76  | { Obv. <i>Dám.</i><br>Rev. <i>33 Ilahí.</i>                                                                   |
| 5  | 326 | { Obv. <i>Zarb i Fulús i Nárnol.</i><br>Rev. <i>Fí san i Nuhsad wa shast, 963.</i>                            |
| 6  | 318 | { Obv. <i>Zarb i Fulús i dár us saltanat, Ahmadábád.</i><br>Rev. <i>Fí san i Nuhsad wa hashtád wa shash.</i>  |
| 7  | 311 | { Obv. <i>Zarb i Fulús i Dehlí.</i><br>Rev. <i>Nuhsad wa hashtád wa yak.</i>                                  |
| 8  | 319 | { Obv. <i>Zarb i Fulús i Dár us saltanat, Fathpúr.</i><br>Rev. <i>Fí san i nuhsad wa hashtád wa nuh, 989.</i> |
| 9  | 325 | { Obv. <i>Fulús i Dár us saltanat Láhor.</i><br>Rev. <i>Fí san i nuhsad wa hashtád wa haft, 987.</i>          |
| 10 | 314 | { Obv. <i>Zarb i Fulús i Hissár Firozah.</i><br>Rev. <i>Fí san i nuhsad wa nawad wa shash, 996.</i>           |
| 11 | 317 | { Obv. <i>Fulús i Dár ul Khiláfat, Lakhnau.</i><br>Rev. <i>Fí san i nuhsad wa hashtád wa nuh, 989.</i>        |
| 12 | 321 | { Obv. <i>Urdú Zafarfarín.</i><br>Rev. <i>Zarb i Fulús. Alif = 1000 A. H.</i>                                 |
| 13 | 317 | { Obv. <i>Zarb i Fulús i Láhore.</i><br>Rev. <i>Farwardín, 39 Ilahí.</i>                                      |
| 14 | 312 | { Obv. <i>Zarb i Fulús i Multán.</i><br>Rev. <i>Urd i bihisht, 41 Ilahí</i>                                   |
| 15 | 318 | { Obv. <i>Zarb i Ilahábás.</i><br>Rev. <i>San i, 36 Ilahí.</i>                                                |
| 16 | 308 | { Obv. <i>Zarb i Fulús i Dehlí.</i><br>Rev. <i>Farwardín, 38 Ilahí.</i>                                       |
| 17 | 315 | { Obv. <i>Zarb i Fulús i Urdú i.</i><br>Rev. <i>Zafarfarín, 42 Ilahí.</i>                                     |
| 18 | 327 | { Obv. <i>Zarb i (Gobí)ndpur, Sikka i Akbar Sháhi.</i><br>Rev. <i>Urd i Bihisht, 46 Ilahí.</i>                |
| 19 | 315 | { Obv. <i>Dokáni ? or Dogánw ? Sikka i Akbar Sháhi.</i><br>Rev. <i>Urd i Bihisht, 44 Ilahí.</i>               |

D D

| No. Wt. in gra. |       |                                                                                           |
|-----------------|-------|-------------------------------------------------------------------------------------------|
| 20              | 316   | { Obv. <i>Zarb i Fulús i Attak Banáras.</i><br>Rev. <i>Amr Dád, 37 Ilahí.</i>             |
| 21              | 295   | { Obv. <i>Zarb i Fulús i Láhor.</i><br>Rev. <i>Shahrewar, 43 Ilahí.</i>                   |
| 22              | 39    | { Obv. <i>Zarb i Fulús i Láhor.</i><br>Rev. ————— 38 <i>Ilahí.</i>                        |
| 23              | 37    | { Obv. <i>Zarb i Fulús i Nármol.</i><br>Rev. <i>Nuhsad wa shast wa nuh.</i>               |
| 24              | 149   | { Obv. <i>Fulús i Kábul.</i><br>Rev. <i>San, 33 Ilahí.</i>                                |
| 25              | 385   | { Obv. <i>Fulús.</i><br>Rev. <i>Urdú zafarfarín.</i>                                      |
| 26              | 140   | { Obv. <i>Zarb i Dár ul Khiláfat, A'grah.</i><br>Rev. <i>Fí san i nuhsad wa shast wa.</i> |
| 27              | 40    | { Obv. <i>Damrí.</i><br>Rev. 33 <i>Ilahí.</i>                                             |
| 28              | 625·5 | { Obv. <i>Zarb i Dehlí, Sikka i Akbar Sháhi.</i><br>Rev. <i>Máh i zí, 43 Ilahí.</i>       |

28a. The space between the two lines shows the thickness of No. 28.

It will be at once seen that each of these coins with the exception of No. 26, has its own designation upon it. Thus Nos. 1 and 2 are called *do tánke* pieces; No. 3 is a *yak tánke* piece. No. 4 is a *dám*. Nos. 5—17 inclusive and Nos. 22—25 inclusive are *fulús* pieces. No. 27, is a *damrí*. Nos. 18, 19 and 28 are called *Sikka i Akbar Sháhi*. The term *fulús* is applied to coins varying from 37 to 326 grains, one struck at Kábul weighing 149. The word *falas* in Arabic means want, indigence, hence *fals* or *filis*, a small coin, an obolus, money given to relieve poverty, or small change or copper, as we say in English.\* *Fulús* is the plural of *fals*. The first coin I have seen with *fulús* upon it is dated 946 A. H. It is evident that a term used so loosely as is this one could never have been brought forward in accounts or revenue statements.

Again the *sikka* has three weights 625·5 grains and 327 and 315 gra. I have three which I have not figured which weigh little more than 37 grains each. Hence *sikka* could not well be used as a definite value.

We have left the *dám*, *damrí* and *tánke*. We know that the last of these was a name applied to coins from the time of Mahmúd of Ghazní. We know also that *tánkes* were of two kinds, silver and copper. The weights of *tánkes* varied as did also their values. The *tánkes* of Sikandar Lodí were of different mixtures of silver and copper. Sometimes they contained only a little more than a grain and a half of silver in each, sometimes as much as eight grains and sometimes as much as sixteen, seventeen or even thirty-two. Hence it is evident that such coins could

\* [This derivation is doubtful. For *fals* signifies a fish scale as well as a copper coin. Ed.]



not be used in revenue returns. It became incumbent on Akbar, therefore, when he made a demand from his ministers for revenue returns to fix a standard. The *yak tánke i Akbar Sháhí* seems to be such a standard value. In the *Ain i Akbarí* we are told that the *dám* was a coin of the value of five *tánkes*. And further we are told that there were forty *dáms* to the rupee. Hence we may judge that there were 200 *tánkes* to the rupee. Now the total revenues of Akbar are put down by Nizám-uddín at 640,00,00,000 *tánkes*. This at the rate of 200 to the rupee would be equal to 3,20,00,000 rupees or £3,200,000.

Now in our list of coins we have a *dám* which weighs only 76 grains. And Abúl Fazl gives Akbar's revenues as 5,67,63,83,383 *dáms*. Now if a coin of 59 grains is valued at 200 to the rupee, a coin of 76 grains would be worth about 160 to the rupee. According to this account Abúl Fazl's statement stands at about 3 krors 54 lacs of rupees or £3,540,000.

These statements are small compared with those arrived at by Thomas who makes the first equal to 32 millions and the latter to 16 millions, a discrepancy rather startling. And the magnitude of the sums is somewhat appalling. For when we turn to the prices of the produce of the land we are astonished to find that wheat sold for two maunds per rupee, barley at four maunds, mutton at about a fortieth of a rupee per lb. And we must remember that nearly all Akbar's revenues were from land.

Now if things sold so cheaply there must have been a vast amount of land under cultivation, in order to realize a revenue of £32,000,000, which is only a fractional part of the value of the whole of the crops. And India in those days must have been an enormously rich country, for Akbar had only a fraction of it in hand.

Thomas in his calculations does not give one coin of Akbar's. He gives statements from contemporary writers. These men were often wrong. Certainly five *yak tánke* pieces of 59 grains could not be equal to the *dám* of 76 grains.\*

Akbar's copper coins seem to follow the copper coins of the Súrí dynasty. Sher Sháh put an end to a mixed currency. But on no one of Sher Sháh's copper coins have I as yet been able to find a coin-name.

Abúl Fazl's statement is for the year 1003 A. H. or Akbar's 40th year and Nizám-uddín's is for 1002 or for his 39th year. The *dám* I figure is for the 33rd year and the *yak tánke* piece is for the 46th year. It is quite possible that these values were those the authors had in view.

I leave this part of the subject. It is one of great importance and one on which authorities differ widely. If Akbar out of the portion of India which he conquered could realize three hundred years ago 32 millions sterling, he in fact realized more than the English Government of India now does. For if we take away from the revenue all the extra sources

\* See note on page 191.

which have accrued to it since the time of Akbar we leave a much smaller amount for land revenue simple than that realized by the third Mogul. I strongly suspect that the whole of these returns are paper sums which were never realized.

Let us now look at some other features in the coins:—the mint towns claim a word. They are A'grah, Láhor, Nárnol, Ahmadábád, Dehli, Fathpúr, Hissár Firozah, Lakhnau, Urdu Zafarfarín, Multán, Ilahábás, Gobindpur, Dogánw (?), Attak Banáras, Kábul, in all sixteen mints. I have in my cabinet some half dozen to-me-illegible mints more of Akbar. In the Lahore Museum is a great heap of Akbar's large copper *fulús*, as yet unarranged.

Nárnol is not given in Thomas, neither is Fathpúr or Dogánw or Gobindpúr. Fathpúr is Fathpúr Sikrí near Ágrah. It rejoices in the title of Dár us Saltanat on both gold and silver coins of Akbar. I have one rupee of Sháhjahán struck at the same place. Attak Banáras is undoubtedly Attock on the Indus; for interesting remarks on this place I must refer the reader to General Cunningham's Archæological Survey Report, Vol. II, pp. 93, 94.

The years and months deserve notice. No sooner had Akbar proclaimed the change in the year than he began to strike coins according to his new system. The coins of the year 80 Ilahí are very rare indeed. I have two rupees of that year but no copper coins. (This was the year of the change.) Akbar reverted to Kalimah rupees after this. His square rupees with *alif* (= in Arabic 1000) are somewhat common. They all have the Kalimah on them. I have two square rupees of 1000 and 1001, with the date *in figures*, and with the Kalimah on them. The months also figure on the coins. Thus we have *Shahrewar*, *Azr*, *Furwardín*, *Urd i Bihisht*, *Amr Dád*, and *Zí*, or six months out of the twelve on the few copper coins here put forward. In rupees I have all the months. I am going to try to complete one year, having already of some years four months. I suppose the dies used must have needed constant replacing. Some of them were very sharp and deep and would soon be the worse for wear.

Of some places I have only figured one coin. I have several of most of them. Thus of Narnol I have four and five of 963, and one of an illegible mint of 966. The whole of the 50 years of Akbar's reign are I believe obtainable in all the metals, gold, silver and copper. I have every year in rupees, except 965. During the last five years I have come across many mohurs of different years. Some of these are of rare beauty. Systematic research ought to bring these to light. The British Museum has *dirhams* of the Khalifahs which go year by year from the commencement of their minting to the time when they ceased striking. And what makes these series the more interesting is the fact that each mint is thus represented year by year, sometimes for nearly a hundred consecutive years. In India, one

object to be had in view is a complete series of coins of all the Sultáns whether Pathán or Mogul, and of the Mahárájahs and Rájahs. Another object should be series of local mints. Thus Lahore, from the time of Mahmúd of Gazní to that of the latter Moguls, was a very famous mint town. But in the museum of that city no attempt has been made to secure complete series of Lahore coins. Those of the early Moguls are of great beauty and deserve to be gathered. The large mohurs and square rupees of Jabáingír struck at Lahore are most especially worthy of notice. Of course the price of such coins would amount to a large sum. But if a museum is worthy of being kept up, surely the things in it should be worth looking at. The coins in the Lahore Museum are now being catalogued, and when the catalogue is issued, the deficiencies and redundancies of the collection will be seen at once. It is to be hoped that when the deficiencies are made manifest, some attempt will be made to make them good.

For coins Nos. 1 and 3, I am indebted to Dav. Ross, Esq., Traffic Manager, Scinde, Punjab and Dehli Railways for permission to make copies of them. For permission to draw No. 28, I am indebted to Mr. Ibbettson, C. S. of Kurnál.

With respect to the *fulús* coins I may add that these are probably the coins of which Bernier says that Aurungzíb had bags of 1000 *peyssas* ready for distribution. In a loose fashion the term *dám* seems also to have been given to the large *fulús* pieces. And generally we see that with respect to Akbar's copper coins there was a want of definiteness which precludes the possibility of arriving at exactness with respect to his revenues. For we must always remember that copper was the standard of value in Akbar's time.

*Note.*—There is some confusion in the names of the copper coinage of the East India Company. Accounts are kept in rupees, annas and pies. There are 12 pies to an anna. But on the quarter anna we have in Persian distinctly *يك پاي* one pie. According to this therefore there are only four pies in an anna. The coin we call a pie has on it in Persian *ثلث پاي* *gulá pái*, the third part of a pie. If the accounts of the Company had been kept in pies only, there would have been tremendous confusion until the value of the pie had been fixed.

The modern pice weighs about 100 grains. Hence a rupee is worth about 6400 grains. If a *dám* weighed 320 grains and a rupee were worth forty *dáms* then in Akbar's time a rupee represented 12,800 grains. But if also the *dám* weighed 80 grains only, and there were 160 of them, the same result is arrived at. Now nearly the same result is arrived at with reckoning the rupee to be worth 200 *tankas* at 60 grains each.

If the relative values of silver and copper were the same in Akbar's time as now, then taking our coins the *tánke* and *dám* at 60 and 80 grains we have 106 and 80 to the rupee respectively. Taking these values, which are probably the correct ones, the revenues of Akbar according to Nizám-uddín and Abúl Fazl are \$6,000,000 and \$7,095000 respectively.



# I N D E X

TO

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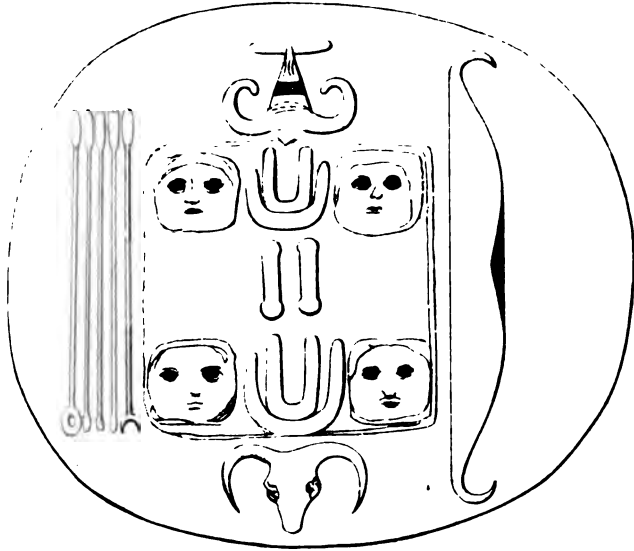
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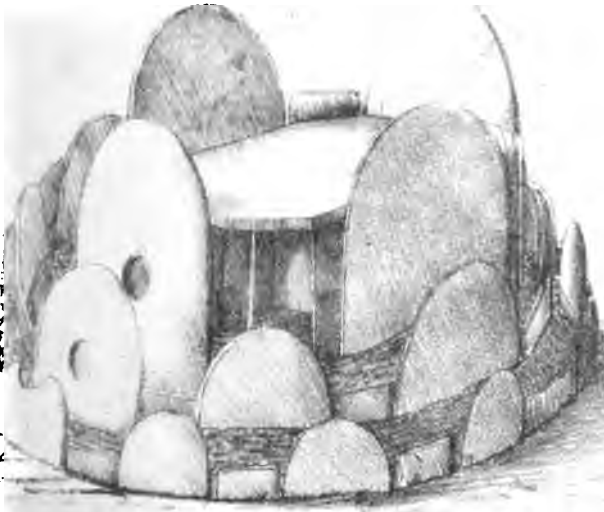
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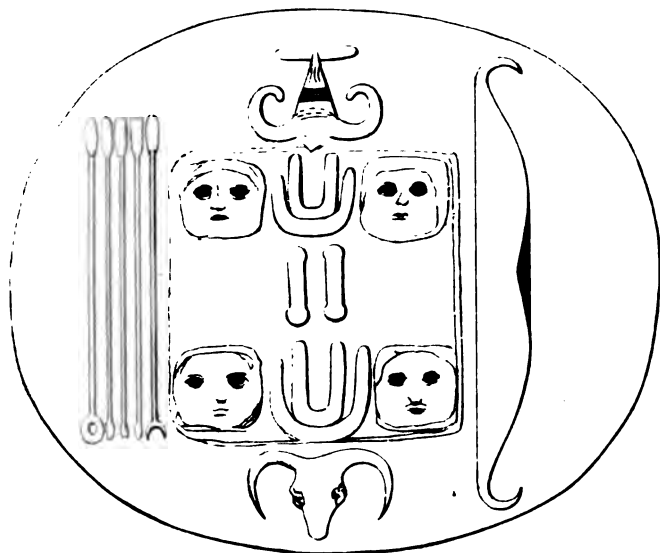


*Rudely sculptured (sacrificial) stone, lying before Temple of Kamala-kanni-yamman at Chenji or Sanji-kottas ("Gingee") S. Arcot.*

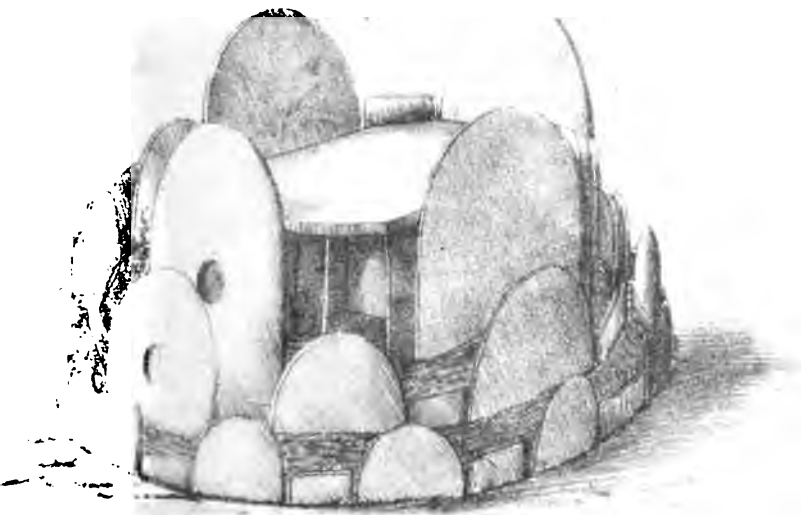


*Rude sepulchral monument of stone slabs at Irabalanda-Bipanattam, in North Arcot District of Madras. Restored slightly.*



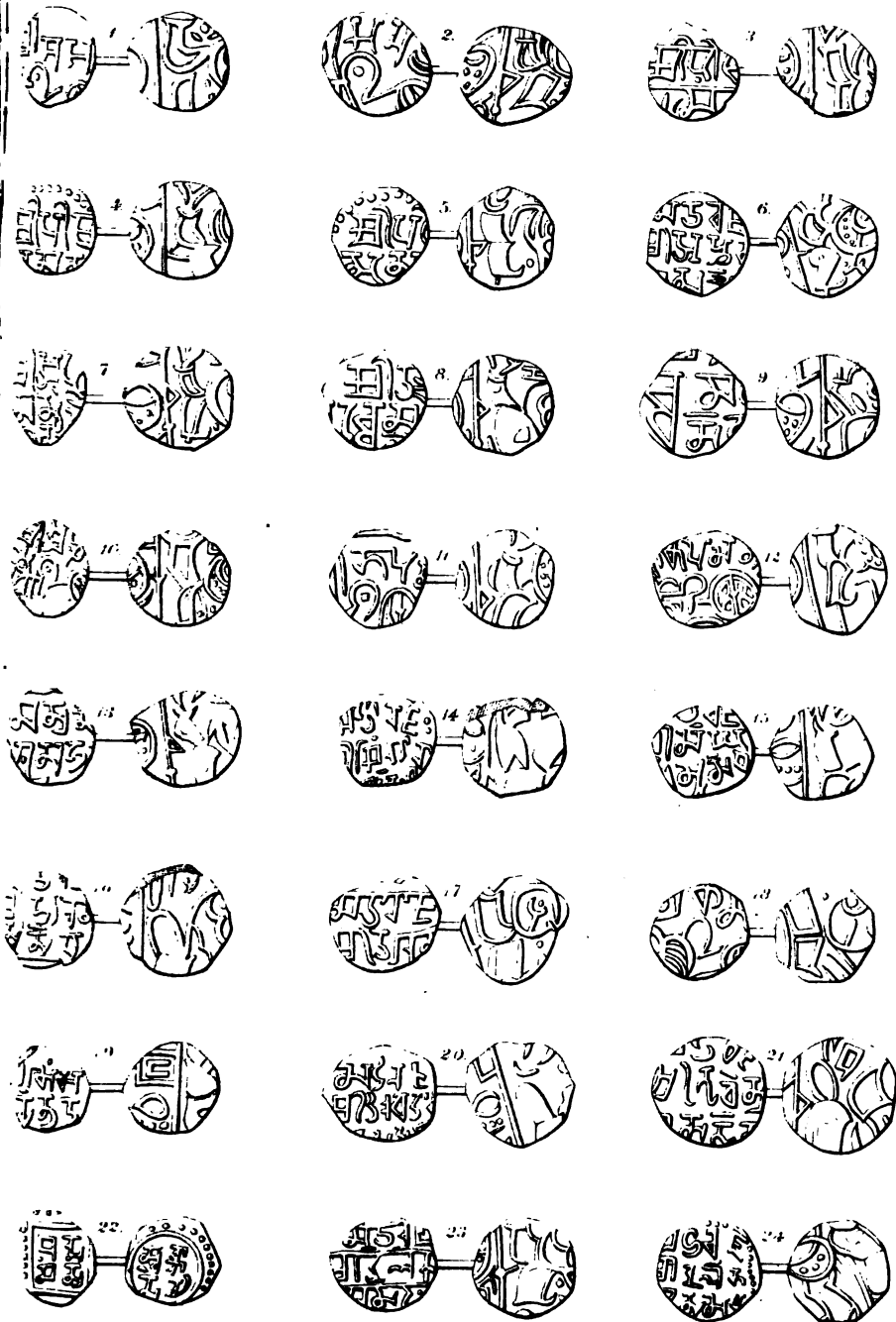


Kaly sculptured (sacrificial) stone, lying before Temple of Kamala-kanni-yamma at Chenji or Sanji-kittai ("Gingee") S. Arcot.

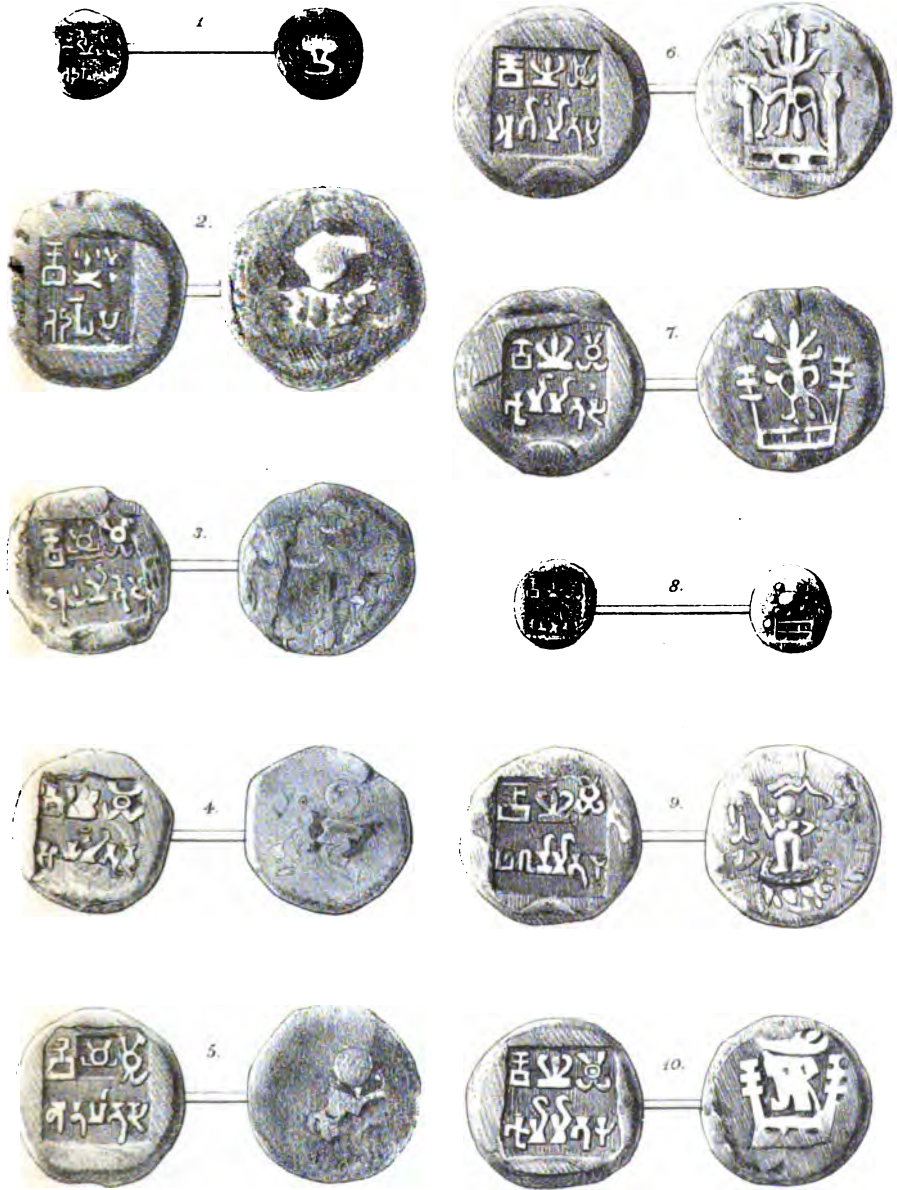


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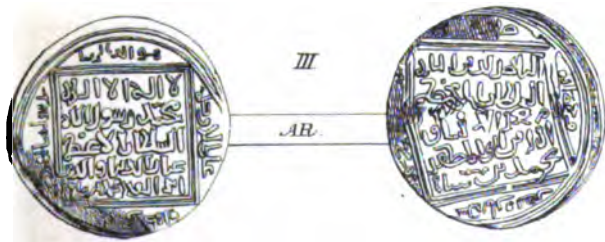
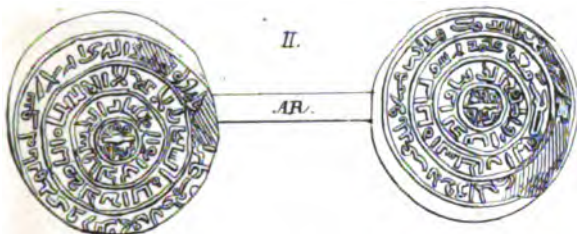
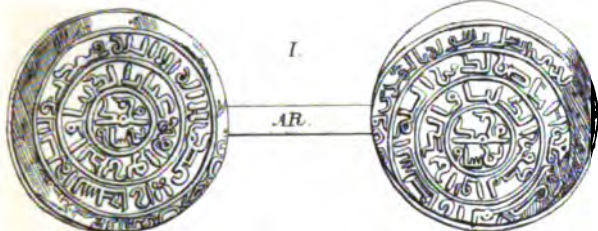




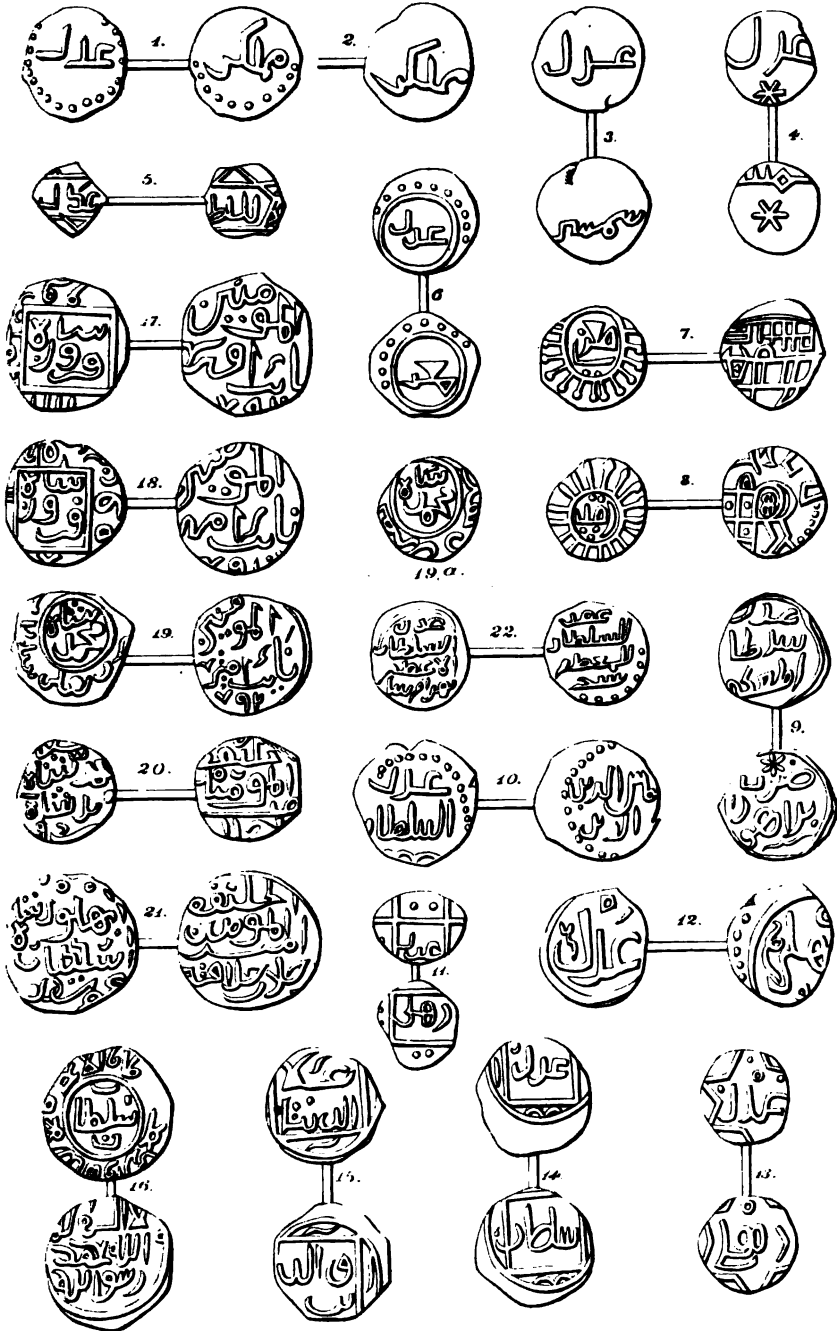


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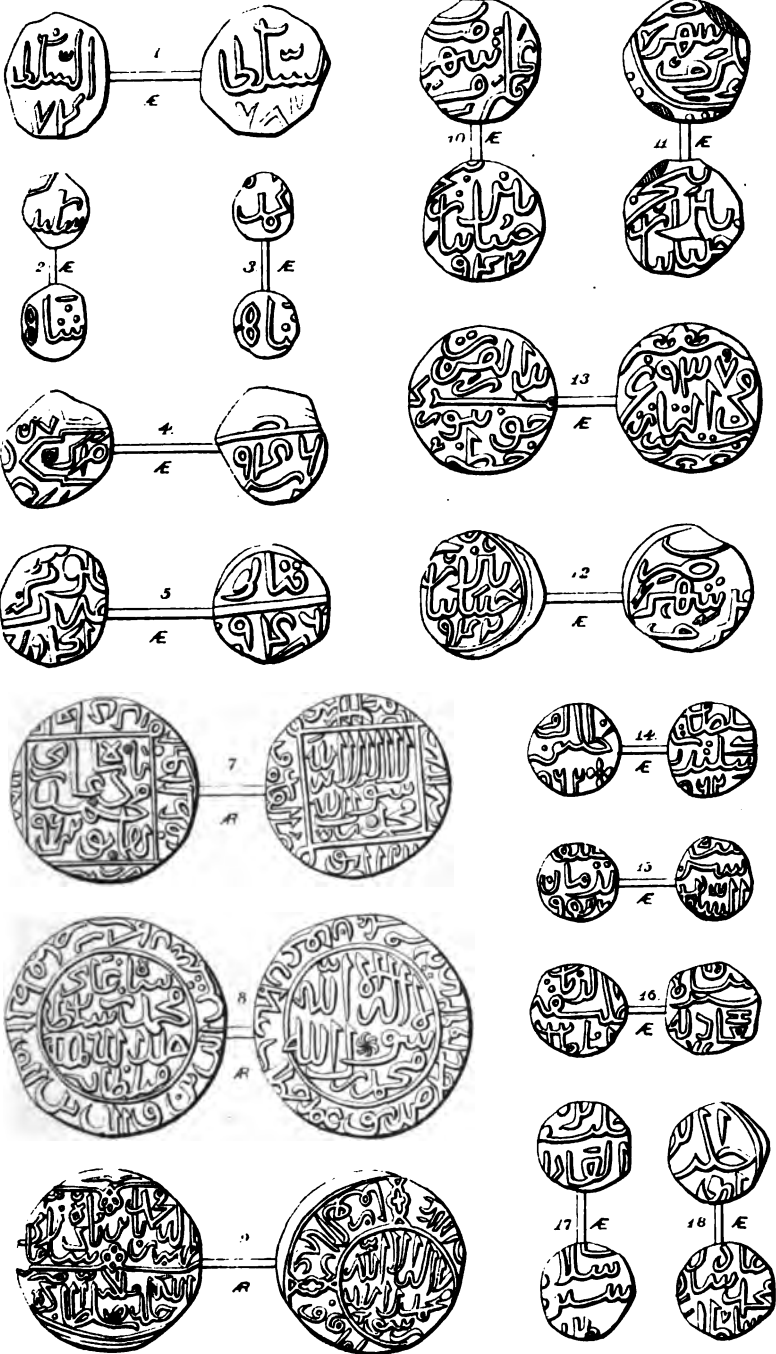
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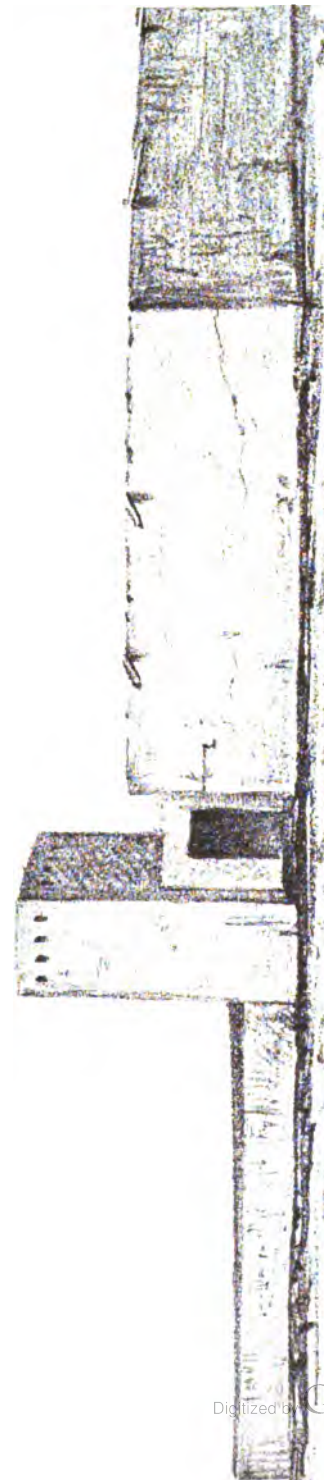
Fig. 9. Utman Khel (Kákar) Hut. Ghazgai Valley. Ningánd.



Fig. 10. Sandar Khel (Kákar) House. Bórai Valley. Wariágai.



Fig. 12. Sand Bóra



Zincographed

Fig. 11. Sandar Khel (Kákar) House. Bórai Valley. Wariágai.

SKETCHES FROM AFGHANISTAN.

R. O. Temple, del.





Fig. 1. Pathán Hut. Kandahar District.



Fig. 2. Pathán Hut. Pishin Valley.



Fig. 3. An Achakzai Kizhdai or semi-permanent tent. Pishin and Kadancei Valleys.

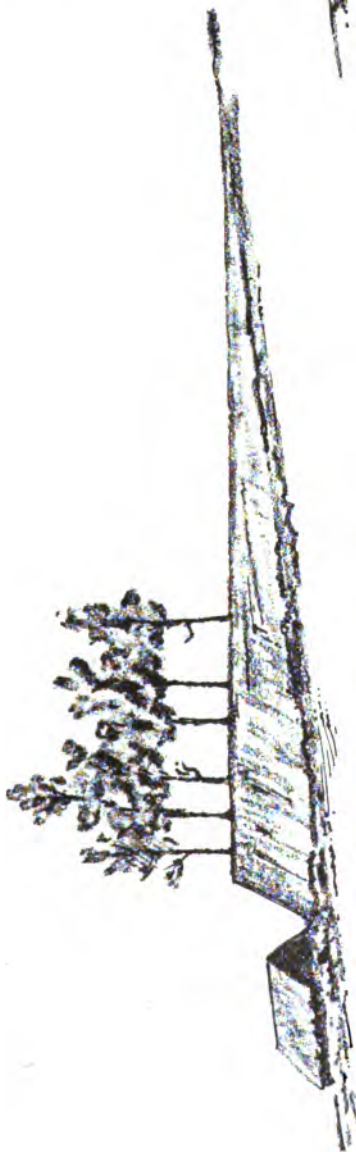


Fig. 4. Ásyá (watermill) with embanked stream. Pishin Valley.



Fig. 5. Kákar Hut. Lower Gorge of the R. Ród (Ísaf Kach.)



Fig. 6. Kákar Hut. Upper Gorge of the R. Ród (Zagan Kach.)



Fig. 7. Mt. Syáigai, 9,000 feet (a landmark in the Shór Valley, near Chimján) from Khwáya looking East. (No Scale.)



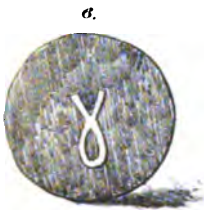
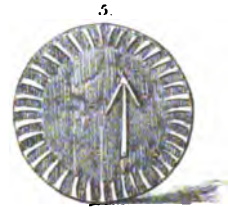
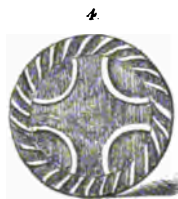
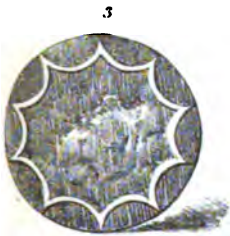
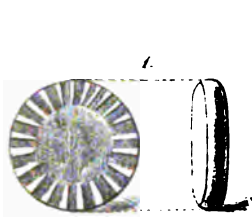
Fig. 8. Zákbpél (Kákar) Hut. Shór Valley. Chimján. Photographed at the Surveyor General's Office, Calcutta.



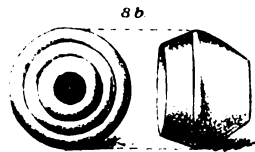
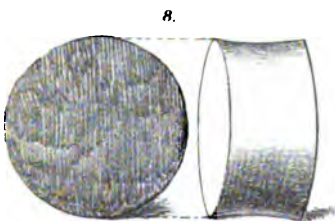






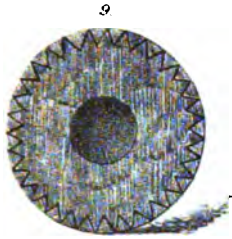


From Alabaster's ..  
The wheel of the Law.

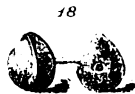
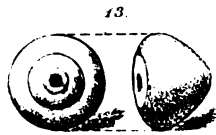
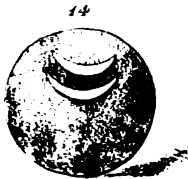
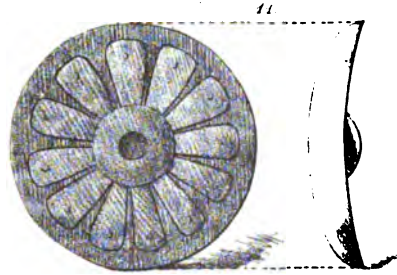
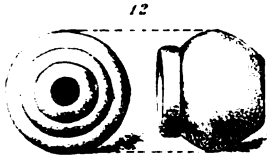


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10 From Schliemann, P. 137



19. Glass Enameled bead.

SPINDLE WHORLS ETC FOUND AT SANKISA BEHAR AND OTHER BUDDHIST RUINS.



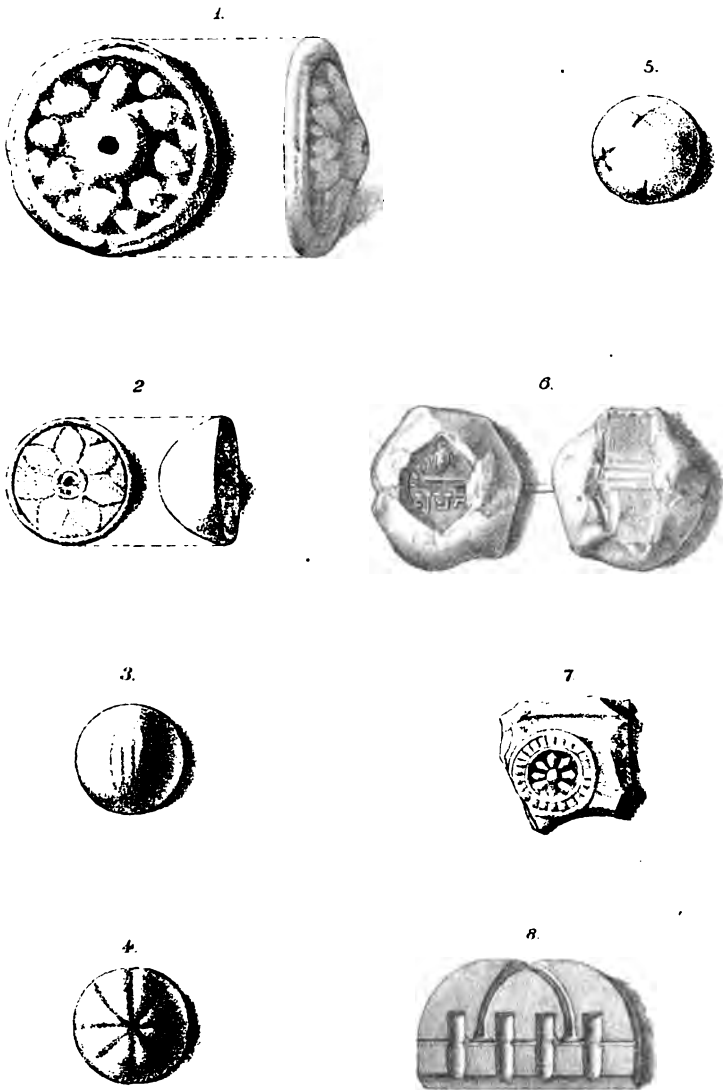


Length 5 inches.

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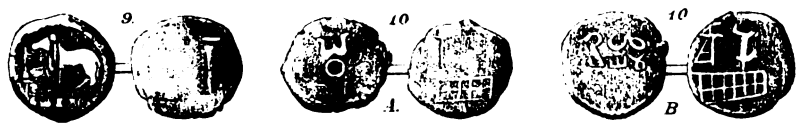
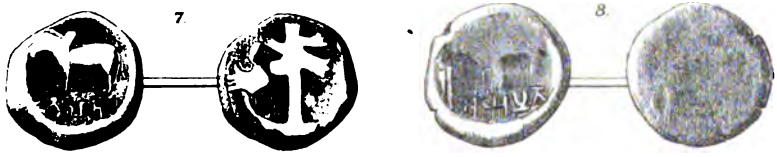






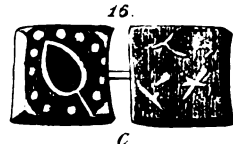
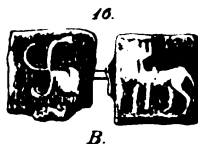
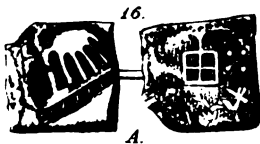
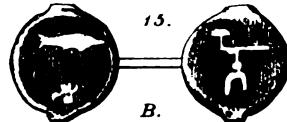
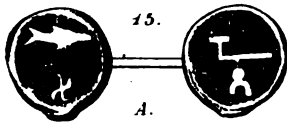
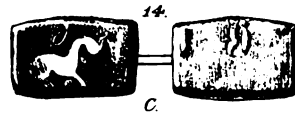
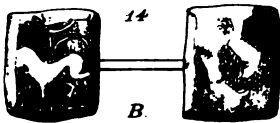
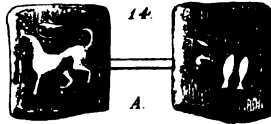
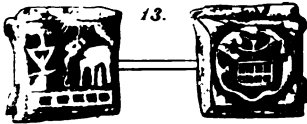
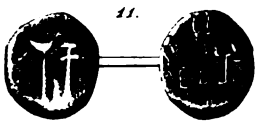
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COPPER BUDDHIST COINS.





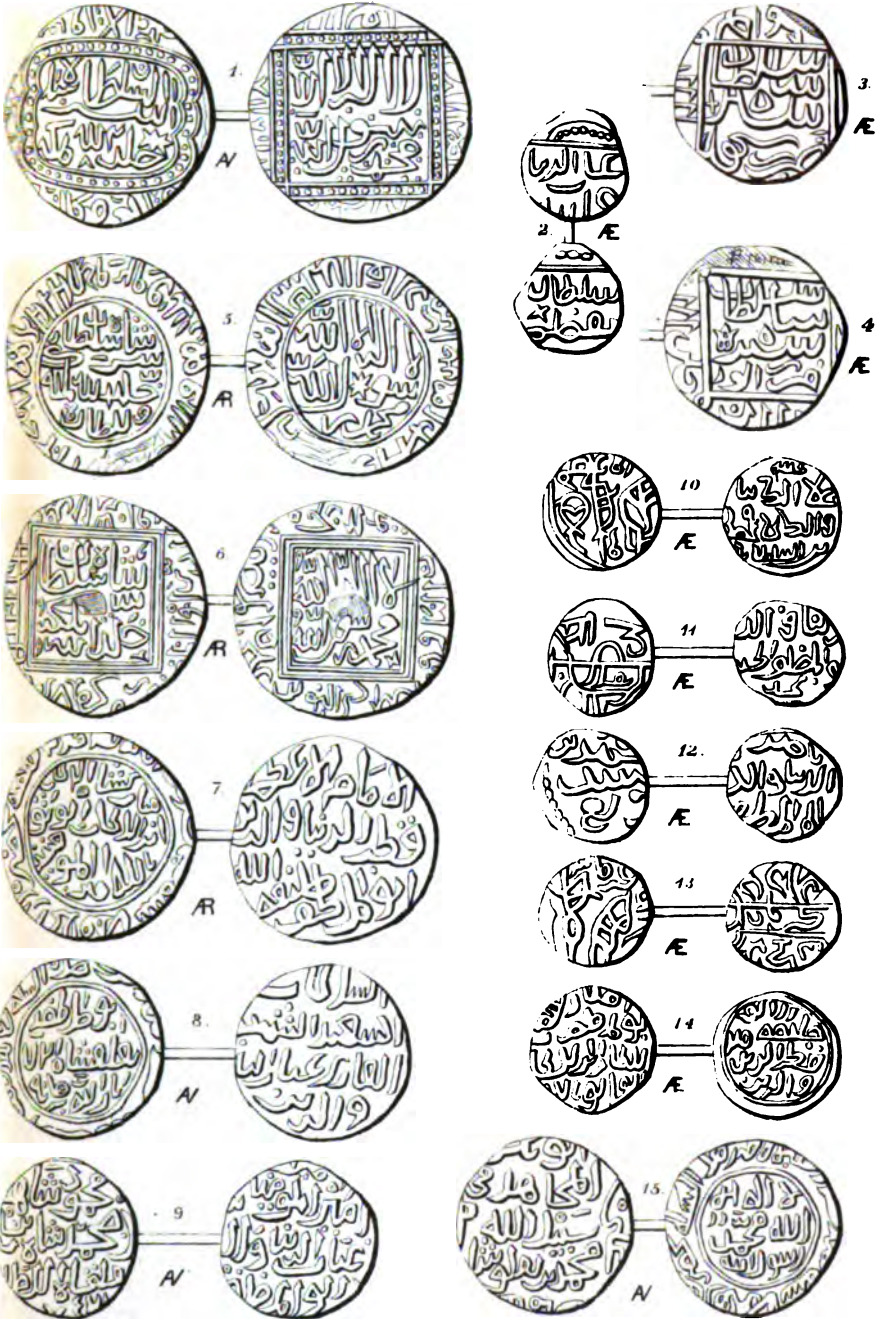




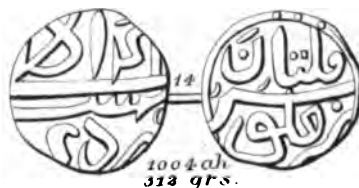
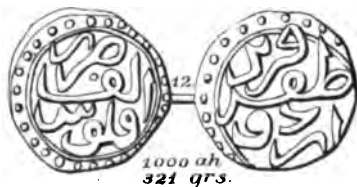
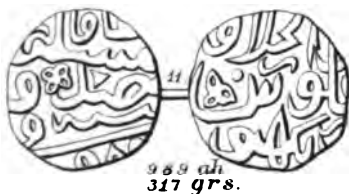
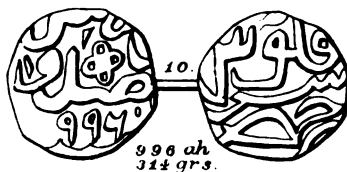
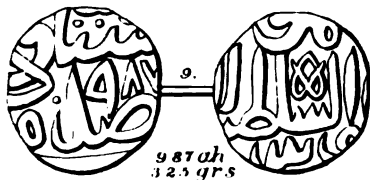
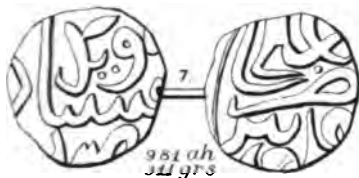
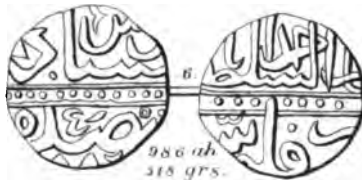
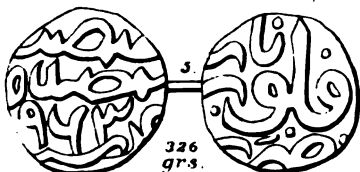
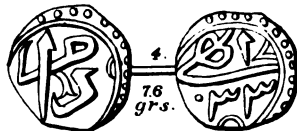
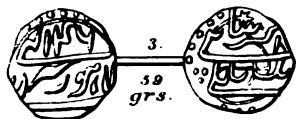
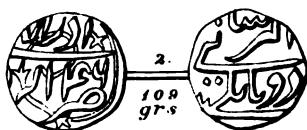
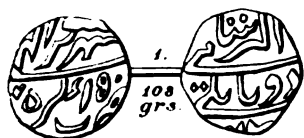
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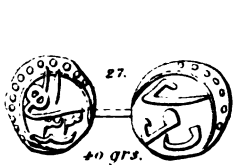
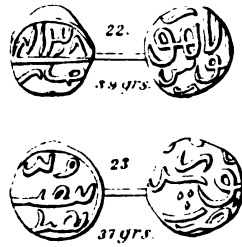
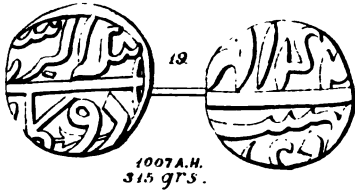
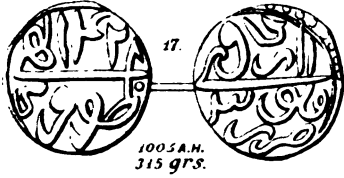
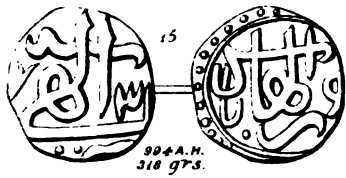












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A SKETCH

OF THE

NORTHERN BALUCHI



# LANGUAGE

CONTAINING

## A GRAMMAR, VOCABULARY

AND

SPECIMENS OF THE LANGUAGE

BY

M. LONGWORTH DAMES, C. S.

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EXTRA NUMBER TO JOURNAL, ASIATIC SOCIETY, BENGAL, PART I FOR 1880.

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## INTRODUCTION.

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1. The Balochí language belongs to the Iranian branch of the Aryan family. It is found in two distinct forms; the Northern dialect which is here treated of, and the Southern or Makráni dialect which has been lately dealt with in Major Mockler's Grammar. The Northern dialect is spoken among the Rind Baloches living in the neighbourhood of the Bolán Pass in Kachi, and on the Upper Sindh and South Panjáb frontiers. The tribes speaking this dialect are the Rinds, Dombkís, Maghasís, Jakránís, Marris, Bugtís, Mazáris, Drishaks, Gorchánís, Lasháris, Durkánís, Leghárís, Hadyánís, Lunds, Khosas, Bozdárs, and Kaisaránis. These tribes come into contact with populations speaking Sindhí, Panjábí, Brahóí, and Pashto. The Indian languages, Sindhí and Panjábí, have affected the Balochí Vocabulary considerably, Pashto very slightly if at all, while Brahóí has probably borrowed considerably from Balochí. The Brahóís commonly understand Balochí, and it is the commonest medium of communication between them and the Balochí speaking tribes. The best Baloch is probably spoken among the Dombkís and Bugtís, the most corrupt perhaps among the Bozdárs. But the differences in dialect between one tribe and another are very slight, while between the Northern and Southern dialects the difference is so great that the one is almost unintelligible to the tribes speaking the other. The Sarawán and Jahlawán tribes of Brahóís occupy a broad belt of country dividing one dialect from the other.

2. This dialect was first dealt with by Leech in the Journal of the Bengal Asiatic Society for 1840. His sketch was commented on by Lassen in the "Zeitschrift für die Kunde des Morgenlandes" for 1841. Leech gives a small Vocabulary. Gladstone's Bilúchí Manual (Lahore, 1873) and Bruce's Manual (Lahore, 1869) both include Vocabularies, but no attempt has hitherto been made to compile a full or systematical vocabulary. There is a scanty vocabulary of Southern Balochí in Masson's travels, but this dialect is fully dealt with by Major Mockler, and a vocabulary is also promised. The difference between the dialects is so

great however that Major Mockler's works are of small value to the student of Northern Balochí, which is of most importance politically speaking. Partly to supply this want, and partly as a contribution to the study of an interesting group of languages, I have compiled this vocabulary, for which I have been collecting words for four years on the Southern Derájt Frontier, and in the Sulaiman Hills, and for a short time in Sibi and Kashi.

3. Balochí is as regards vocabulary a mixed language. The original old Persian stock has formed the nucleus round which the alien elements have gathered. The principal borrowings have been from Sindhí or the South Panjábí dialect which is nearly akin to it. Correspondences are pointed out in the vocabulary, Indian words being generally marked as Sindhí, as that is the source from which they are immediately derived. But by pointing out the correspondence I do not mean to assert that in every case Balochí has borrowed from Sindhí. Sometimes Sindhí may be the borrowing language, and in many cases both languages are indebted to modern Persian or Arabic. Though the numerical proportion of Sindhí words as shown in the vocabulary may seem very large it is not so in actual practice, as many of these words are of rare occurrence, and others only locally used. Nearly all the words in commonest use, especially the verbs, are pure Balochí.

4. I prefix an outline of the grammar of Balochí. Lassen has already treated of the sounds, but the materials furnished him by Leech were too imperfect, and too full of misprints to be a safe foundation to build on in every case. Although, however, he was led astray in individual cases, the true character of the language did not escape him, and the remarks that follow are based on his.

---

# BALOCHI GRAMMAR.

TABLE OF BALOCHI SOUNDS.

|              | SURD.   |           |         | SONANT. |           |           | Nasal. | Sibilant.          | Semi-vowels.     | Aspirate. |
|--------------|---------|-----------|---------|---------|-----------|-----------|--------|--------------------|------------------|-----------|
|              | Mute.   | Aspirate. |         | Mute.   | Aspirate. |           |        |                    |                  |           |
| Guttural ... | ڪ<br>k  | ڪھ<br>kh  | خ<br>kh | غ<br>g  | گھ<br>gh  | غھ<br>gh  | ع<br>n | ...                | ...              | ء<br>h    |
| Palatal ...  | چ<br>ch | چھ<br>chh | ...     | ج<br>j  | جھ<br>jh  | ...       | ...    | ش<br>sh<br>ز<br>zh | ي<br>y           | ...       |
| Cerebral ... | ت<br>t  | تھ<br>th  | ...     | د<br>d  | دھ<br>dh  | ...       | ...    | ...                | ...              | ...       |
| Dental ...   | ط<br>t  | طھ<br>th  | ف<br>f  | ب<br>b  | بھ<br>bh  | و<br>v, w | م<br>m | س<br>s<br>ز<br>z   | ل<br>l<br>ر<br>r | ...       |
| Labial ...   | پ<br>p  | پھ<br>ph  | ف<br>f  | ب<br>b  | بھ<br>bh  | و<br>v, w | م<br>m | ...                | ...              | ...       |

## THE ALPHABET.

Balochí can hardly be called a written language. It is only within the last few years that Balochís have begun to write it, Persian being the ordinary medium of written communication and the Balochís considering their language to be merely a colloquial form of Persian. In writing, uniformity of spelling is little attended to. As the Persian character is the only one current in the countries where Balochí is spoken, I have employed it in the Vocabulary, giving a transliteration of all words in the Roman character. Short vowels are not marked in the Persian character, as the transliteration renders it unnecessary. The Arabic letters **ث** and **ذ** are retained to represent certain Balochí sounds corresponding, or nearly so, with their Arabic values, the representation of these sounds by **س** and **ز** being insufficient and misleading. The other Arabic letters **ح**, **ص**, **ط**, **ظ**, **ع**, and **ق** are omitted as unnecessary having no distinct value in Balochí. In the borrowed Arabic words phonetic correctness is all that is aimed at. Aspirates are represented by **ه** or **h** following the aspirated consonant. The cerebrals are marked as in Urdú.

*The Persian Alphabet as applied to Balochí.*

| Persian. | Roman.       | Value.                                                                                                                                                                                                                                                                                                                               |
|----------|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ا        | a, i, u, á,  | As in Persian, an initial introducing all vowels.                                                                                                                                                                                                                                                                                    |
|          | e, ai, o, au | With the short vowel marks $\overset{˘}{\text{—}}$ $\overset{˙}{\text{—}}$ $\overset{˚}{\text{—}}$ it forms a, i, u. With <i>madda</i> $\overset{ˆ}{\text{ا}}$ it forms á. With $\overset{ˆ}{\text{آ}}$ following it forms í, e, ai. With $\overset{ˆ}{\text{ا}}$ following it forms ú, o, au. As a medial and final it is always á. |
| ب        | b            | As in English and Persian.                                                                                                                                                                                                                                                                                                           |
| به       | bb           | Aspirated <i>b</i> .                                                                                                                                                                                                                                                                                                                 |
| پ        | p            | As in Persian and English.                                                                                                                                                                                                                                                                                                           |
| په       | ph           | Aspirated <i>p</i> .                                                                                                                                                                                                                                                                                                                 |
| ت        | t            | Dental <i>t</i> as in Persian.                                                                                                                                                                                                                                                                                                       |
| ته       | th           | Aspirated <i>t</i> .                                                                                                                                                                                                                                                                                                                 |
| تھ       | th           | As in Arabic, English <i>th</i> in <i>breath</i> , <i>health</i> .                                                                                                                                                                                                                                                                   |
| تھ       | t̤           | Cerebral <i>t̤</i> pronounced as in Hindústání.                                                                                                                                                                                                                                                                                      |
| تھه      | t̤h          | Aspirated <i>t̤</i> .                                                                                                                                                                                                                                                                                                                |
| ج        | j            | <i>J</i> as in English.                                                                                                                                                                                                                                                                                                              |
| جه       | jh           | Aspirated <i>j</i> .                                                                                                                                                                                                                                                                                                                 |
| چ        | ch           | As in English <i>church</i> .                                                                                                                                                                                                                                                                                                        |



| Persian. | Roman. | Value.                                                                                                                         |
|----------|--------|--------------------------------------------------------------------------------------------------------------------------------|
| چ        | chh    | Aspirated <i>ch</i> .                                                                                                          |
| خ        | kh     | An aspirate guttural as in Persian, pronounced without harshness as in Pashto.                                                 |
| د        | d      | Dental <i>d</i> as in Persian.                                                                                                 |
| ذ        | dh     | Aspirated <i>d</i> .                                                                                                           |
| ذ        | ḍ      | Cerebral <i>ḍ</i> as in Hindústání.                                                                                            |
| ذ        | ḍh     | Aspirated <i>ḍ</i> .                                                                                                           |
| ذ        | dh     | As in Arabic, or English <i>th</i> in <i>brother, breathe</i> .                                                                |
| ر        | r      | A clearly trilled <i>r</i> , as in Persian.                                                                                    |
| ر        | r      | Cerebral <i>r</i> as in Hindústání, and like it nearly connected in sound with <i>ḍ ḍ</i> .                                    |
| ز        | z      | As English <i>z</i> .                                                                                                          |
| ژ        | zh     | As in Persian, or <i>s</i> in English <i>measure</i> .                                                                         |
| س        | s      | As in Persian. English <i>s</i> .                                                                                              |
| ش        | sh     | As in Persian, the palatal sibilant. English <i>sh</i> .                                                                       |
| خ        | gh     | As in Persian. A slightly pronounced guttural, not so harsh as in Arabic or Pashto.                                            |
| ف        | f      | A pure labial <i>f</i> ; not partly dental as English <i>f</i> .                                                               |
| ک        | k      | As English <i>k</i> without any palatalization as in Persian.                                                                  |
| گ        | g      | <i>G</i> hard as in English and Persian without palatalization.                                                                |
| م        | m      | As English <i>m</i> .                                                                                                          |
| ن        | n      | As English <i>n</i> . Also as a slightly pronounced guttural nasal, as in the final <i>n</i> of Persian or Hindústání plurals. |
| و        | w, v   | Either as English <i>w</i> or as a purely labial <i>v</i> , not as English <i>v</i> .                                          |
| ه        | h      | As English <i>h</i> . Occasionally mute as a final. When so mute it is not represented in transliterations.                    |
| ی        | y      | As English <i>y</i> . Sometimes pronounced with a slight tendency to become <i>zh</i> .                                        |

## BALOCHI SOUNDS.\*

## 1.—CONSONANTS.

ك k corresponds with Persian k, which however more usually appears in Balochi as کھ kh or خ kh.

کھ kh as an initial represents Persian ک k or خ kh; e. g.,

|                   |                  |
|-------------------|------------------|
| Balochi khush-agh | Persian kush-tan |
| B. khar           | P. khar          |
| B. khan-agh       | P. kun           |

As a final it sometimes represents گ g; e. g.,

|           |         |
|-----------|---------|
| B. gwánkh | P. báng |
| B. gurkh  | P. gurg |

خ kh seldom occurs initially, its place being taken by kh. As a final it corresponds with Persian k or g; e. g.,

|         |         |
|---------|---------|
| B. hákh | P. khák |
| B. rekh | P. reg  |

گ g corresponds either with Persian g or b. As an initial gw answers to b (original v); e. g.,

|             |           |
|-------------|-----------|
| B. gandím   | P. gandum |
| B. gíst     | P. bíst   |
| B. gwátth   | P. bád    |
| B. gwaf-agh | P. báfтан |
| B. geth     | P. bed    |

گھ gh does not seem to occur in true Balochi words, but to be confined to words of Indian origin.

گھ gh hardly ever appears as an initial. As a medial it corresponds with Persian g and h; as a final usually with h (whether pronounced or mute in modern Persian, also occasionally with g; e. g.,

|            |          |
|------------|----------|
| B. jaghar  | P. jigar |
| B. nigháh  | P. nigáh |
| B. dighár  | P. díhár |
| B. jigh    | P. zih   |
| B. roshagh | P. rozah |
| B. ragh    | P. rag   |

In the words saghar 'head,' P. sar, and naghan 'bread,' P. nán, the gh has no consonant corresponding to it in the Persian.

\* These explanations follow the order of sounds in the Table, p. 3.

The *gh* appears to be inherent in past participles, answering to the final *h* of the Persian, but it is not heard except in compound forms when followed by a vowel. Thus *khutha*, p. p. of *khanagh* means 'done,' but *khutha-gh-ant* 'they have done.'

ω frequently occurs as a final, in the place of *n* or *nt*; e. g.,  
*khanaghen* — *khanaghant*.

Occasionally owing to a nasal style of pronunciation, *mw* stands for *m*, and *s* is interpolated as a final; e. g.,

*nyámwán* — *nyámá*

چ generally corresponds with the same letter in Persian.

چ also represents Persian *ch*; e. g.,

|                  |                  |
|------------------|------------------|
| B. <i>chbáth</i> | P. <i>cháh</i>   |
| B. <i>chham</i>  | P. <i>chashm</i> |

ج corresponds either with original Persian *j* or *z*; e. g.,

|                 |                 |
|-----------------|-----------------|
| B. <i>jihán</i> | P. <i>jahán</i> |
| B. <i>jan</i>   | P. <i>zan</i>   |
| B. <i>jígh</i>  | P. <i>zih</i>   |

ج is only found in words of Indian origin.

The cerebral consonants are found almost entirely in words of Indian origin. Before a dental, *r* is occasionally pronounced *ṛ*, as *maṛd* for *mard*, *gaṛtha* for *gartha*; but this is not universal and has not been marked in the Vocabulary. Leech represents this by *ḍ*, but I have never heard it so pronounced.

ṛ represents an original *t*, which however more usually becomes *th*.

ṛ as an initial commonly represents an original *t*. As a final, and after a consonant medially, it often corresponds with Persian *d*; e. g.,

|                    |                  |
|--------------------|------------------|
| B. <i>tháṛktha</i> | P. <i>tákhta</i> |
| B. <i>thafar</i>   | P. <i>tabar</i>  |
| B. <i>áṛth</i>     | P. <i>árad</i>   |
| B. <i>khanth</i>   | P. <i>kunad</i>  |
| B. <i>burtha</i>   | P. <i>burda</i>  |

ṛ (*th*) (pronounced as in Arabic, like English *th* in *nothing*, *heath*), does not occur initially. As a medial and final it corresponds with Persian *d*. As a final it does not occur, unless preceded by a vowel; e. g.,

|                   |                   |
|-------------------|-------------------|
| B. <i>bráth</i>   | P. <i>birádar</i> |
| B. <i>gwáth</i>   | P. <i>bád</i>     |
| B. <i>roth</i>    | P. <i>rúda</i>    |
| B. <i>roth</i>    | P. <i>ravad</i>   |
| B. <i>síth</i>    | P. <i>súd</i>     |
| B. <i>rasítha</i> | P. <i>rasúda</i>  |

د d corresponds with Persian d as an initial and occasionally after a consonant; e.g.,

|             |               |
|-------------|---------------|
| B. dem      | P. adīm       |
| B. khandagħ | P. khand-údan |

دھ dh only occurs in words of Indian origin.

ذ dh (pronounced like English th in *mother*, *breathe*) never occurs initially. As a final and medial it corresponds with Persian d; e. g.,

|           |          |
|-----------|----------|
| B. dídhār | P. dídár |
| B. sadh   | P. sad   |
| B. rodh   | P. rod   |

In some verbs dh as a characteristic represents a consonant which is lost in modern Persian; e. g.,

|                          |                               |
|--------------------------|-------------------------------|
| B. rudh-agħ, p.p. rustha | P. rustan, Imp. rú            |
| B. nyádħ-agħ             | P. nihádan, nih.              |
| B. shodħ-agħ             | P. shustan, shú, p.p. shustha |

In madħakh 'locust' dh corresponds with l in Persian malakh.

In kághadh كاذ the Persian spelling is preserved, though ذ is pronounced dh not z.

In nadħra it represents Arabic ظ in نظر.

ن n corresponds with Persian n.

پ p corresponds with Persian p, also with f before a consonant; e. g.,

|            |          |
|------------|----------|
| B. hapt    | P. haft  |
| B. gwaptha | P. báfta |

پھ ph as an initial represents Persian p and f; e. g.,

|           |           |
|-----------|-----------|
| B. phanch | P. panj   |
| B. phusht | P. pusht  |
| B. phur   | P. pur    |
| B. phráh  | P. farákh |

ف f seldom occurs initially, its place being taken by ph. As a medial and final it commonly represents Persian b; e. g.,

|           |          |
|-----------|----------|
| B. thafar | P. tabar |
| B. shaf   | P. shab  |
| B. áf     | P. áb    |

ب b corresponds with Persian b as an initial and when not preceded by a vowel.

بھ bh is found only in words of Indian origin.

و w, v, has two sounds. The most usual is that of English w, which it receives [generally when followed by a vowel, and the other that of a

labial *v* (bh in Ellis's palæotype), which it receives when followed by a consonant or as a final, and in borrowed words of Sindhí origin. With both pronunciations it often corresponds with Persian *b*; e. g.,

|                 |                 |
|-----------------|-----------------|
| B. <i>zawán</i> | P. <i>zabán</i> |
| B. <i>warná</i> | P. <i>barná</i> |
| B. <i>savz</i>  | P. <i>sabz</i>  |
| B. <i>wháv</i>  | P. <i>khwáb</i> |

Combined with *h*, *w* is pronounced like English *wh* in *which*; *wh* and *w* alone often correspond with Persian *khw* *خو* or *kh* followed by a labial vowel (*u*, *ú*, *o*). The guttural is either preserved in the aspirate *h*, or more frequently lost altogether (see *h*); e. g.,

|                   |                     |
|-------------------|---------------------|
| B. <i>whán</i>    | P. <i>khwán</i>     |
| B. <i>whár</i>    | P. <i>khwár</i>     |
| B. <i>wash</i>    | P. <i>khush</i>     |
| B. <i>wán-agh</i> | P. <i>khwán-dan</i> |
| B. <i>war-agh</i> | P. <i>khur-dan</i>  |

م *m* corresponds with Persian *m*.

س *s* corresponds with Persian *s*.

ش *sh* as an initial corresponds with Persian *sh*. As a final and medial it corresponds either with *sh* or *z*; e. g.,

|                  |                 |
|------------------|-----------------|
| B. <i>shaf</i>   | P. <i>shab</i>  |
| B. <i>ash</i>    | P. <i>az</i>    |
| B. <i>namásh</i> | P. <i>namáz</i> |
| B. <i>seshin</i> | P. <i>sozan</i> |
| B. <i>rosh</i>   | P. <i>roz</i>   |

Sher 'below' seems to correspond with Persian *zer*, but there is no other case of initial *sh* corresponding with *z*. Sher may be a contraction of *ash-er* 'from below.'

ج *z* corresponds either with Persian *s* or *z*; e. g.,

|                 |                 |
|-----------------|-----------------|
| B. <i>zuwár</i> | P. <i>suwár</i> |
|-----------------|-----------------|

In the following words *z* corresponds with Persian *d*; viz.,

|                   |                     |
|-------------------|---------------------|
| B. <i>zí</i>      | P. <i>dí roz</i>    |
| A. <i>zán-agh</i> | P. <i>dán-istan</i> |
| B. <i>zámáth</i>  | P. <i>dámád</i>     |

In *zí* 'yesterday,' *mazain* 'great,' *zánagh* 'know,' and *zirde*, a poetical word meaning 'heart,' the original Zend *z* is preserved. In *zámáth* *z* represents an original *j*.

In *zik* and *zarágħ* *z* corresponds with the *j* of Sindhi *jik* and *jaru*, but these words may have been borrowed by Sindhi. Cf. Pashto *zik*.

ǰ *zh* corresponds with Persian *sh*, *z* and *j*; e. g.,

|                   |                    |
|-------------------|--------------------|
| B. <i>duzħman</i> | P. <i>dushħman</i> |
| B. <i>azħmán</i>  | P. <i>ásħmán</i>   |
| B. <i>drázħ</i>   | P. <i>daráz</i>    |
| B. <i>wázħá</i>   | P. <i>kħwájá</i>   |

ç *y*, ç *r*, and ǰ *l* correspond with the same letters in Persian.

ç *h* generally represents an old Persian *h*, modern Persian *h* or *kħ*; e. g.,

|                 |                  |
|-----------------|------------------|
| B. <i>hushk</i> | P. <i>kħushk</i> |
| B. <i>hon</i>   | P. <i>kħun</i>   |
| B. <i>híkħ</i>  | P. <i>kħúk</i>   |
| B. <i>phráħ</i> | P. <i>farákħ</i> |

Borrowed Arabic words beginning with ç undergo a similar change, as:—

|                 |                  |
|-----------------|------------------|
| B. <i>hair</i>  | A. <i>kħair</i>  |
| B. <i>hatar</i> | A. <i>kħatar</i> |

The above noted correspondences may be tabulated as follows:

| Persian. |                       | Balochi.             |
|----------|-----------------------|----------------------|
| k        | as an initial         | kh                   |
|          | medial }<br>final }   | kħ                   |
| kħ       | initial               | h, kh                |
|          | medial                | kħ                   |
|          | final                 | h, kħ                |
| g        | initial               | g                    |
|          | medial                | għ                   |
|          | final                 | għ, kħ               |
| ch       | initial               | ohh                  |
| t        | initial               | th                   |
| d        | medial }<br>final }   | tħ, dħ, th           |
| p        | initial               | ph                   |
| f        | initial               | ph                   |
| b        | medial }<br>final }   | f, v, w              |
| sh       | medial                | zh (occasionally)    |
| s        | initial }<br>medial } | z, zh (occasionally) |
| z        | initial               | j                    |

| Persian. |                     | Balochi.             |
|----------|---------------------|----------------------|
| z        | medial }<br>final } | sh, zh               |
| h        | medial }<br>final } | għ                   |
|          | initial             | occasionally omitted |

It will be noticed that the aspirates of the surd row (kh, chh, th) are very common, replacing the corresponding unaspirated Persian consonants, while those of the sonant row (gh, jh, dh, bh) seem to be entirely confined to words of Indian and Brahuí origin.

The letters *kħ*, *għ*, *tħ*, *dħ*, and *f* are usually medials or finals, representing the Persian letters, shown in the above table. *Tħ* and *dħ* are never initials, and *kħ*, *għ* and *f*, when they occur in borrowed words of modern introduction as initials, are usually pronounced kh, g and ph.

An initial h is occasionally lost altogether; e. g.,

|                 |                   |
|-----------------|-------------------|
| B. <i>astən</i> | P. <i>hastand</i> |
| B. <i>am</i>    | P. <i>ham</i>     |

## II. VOWELS.

The vowel sounds in Balochi generally agree with those of *Kħurásání* Persian. They may be arranged as follows:—

|            |              |
|------------|--------------|
| Long       | á, í, ú      |
| Short      | a, i, u      |
| Diphthongs | e, ai, o, au |

The most noticeable point of difference from Persian is the frequent substitution of the palatal series í, i, e for the labial series ú, u, o; e.g.,

|                   |                  |
|-------------------|------------------|
| B. <i>sítħ</i>    | P. <i>súd</i>    |
| B. <i>dír</i>     | P. <i>dúr</i>    |
| B. <i>seshin</i>  | P. <i>sozan</i>  |
| B. <i>gandím</i>  | P. <i>gandum</i> |
| B. <i>bítħa</i>   | P. <i>búda</i>   |
| B. <i>hítħ</i>    | P. <i>kħúk</i>   |
| B. <i>wasí</i>    | P. <i>kħusú</i>  |
| B. <i>sírmugħ</i> | P. <i>surma</i>  |

A similar change sometimes affects borrowed Arabic words; e. g.,

|                 |                 |
|-----------------|-----------------|
| B. <i>málím</i> | A. <i>málúm</i> |
| B. <i>hír</i>   | A. <i>húr</i>   |

In a few cases the change is reversed; e. g.,

|                    |                    |
|--------------------|--------------------|
| B. <i>osht-agħ</i> | P. <i>ist-ádan</i> |
| B. <i>súf</i>      | P. <i>sev</i>      |

Other variations from the Persian vowel system are rare.

## THE NOUN.

## I.—TERMINATIONS.

1. Balochi nouns in their formation correspond closely with Persian. The original terminal vowels have been lost, and the majority of nouns now terminate in consonants. There is no distinction of gender.

## 2. Vowel-endings.

á. The majority of nouns, ending in á are borrowed from Sindhi or Arabic. In the former case á sometimes represents Sindhi o, therein corresponding more nearly with Panjábí; e. g.,

Ar. hayá, duá.

Si. bhá, jherá, thorá, trámá, velá.

The words wázhá, zá, chawá, pásná and begá are not borrowed. Of these wázhá (P. khwájah) and begá in inflected forms drop the á, and take the termination ah as a base of inflection; e. g.,

wázhá, pl. wázhahán, lords

begá: abl. begahá, in the evening.

The borrowed noun velá time, is similarly treated. Other nouns ending in á take no inflections. Some Sindhi nouns as jherá, thorá have an alternative form in o which can be inflected.

í. This is a common termination being commonly used as in Persian to form abstracts as duzí, 'theft' from duz 'thief,' sakí strength from sak 'strong' &c., also as the termination of other abstract nouns not directly formed from Balochí bases as shádhi 'rejoicing,' ziyáni 'injury.' It occurs also in other nouns as godí 'lady,' druháni 'pistol,' mavárkí 'assembly,' pahlí 'rib' (P. pahlú). A as a termination of borrowed words í is also found as in chári 'spy,' mehí 'buffalo,' phallí 'section of a tribe.'

O is of frequent occurrence both in pure Balochí and in borrowed words; e. g.,

|         |                       |             |           |
|---------|-----------------------|-------------|-----------|
| Balochi | dít <sup>h</sup> lo,  | mist        | (P. dúd). |
|         | shát <sup>h</sup> lo, | dove        |           |
|         | bathlo,               | mortar      |           |
|         | nák <sup>h</sup> o,   | uncle       |           |
|         | gok <sup>h</sup> o,   | span        |           |
|         | mok <sup>h</sup> o    | spider      |           |
|         | go                    | race, prize |           |
|         | jo                    | watercourse |           |
|         | gwando                | alligator   |           |
|         | duggo                 | eagle       |           |
|         | jaddo                 | cave        |           |
|         | phalo                 | direction   |           |



|          |          |                 |             |
|----------|----------|-----------------|-------------|
|          | surgo    | speech          |             |
|          | leŕo     | camel           |             |
| Borrowed |          |                 |             |
|          | đaðdo,   | pony            | Si. đrađro  |
|          | parađdo, | echo            | Si. parańđo |
|          | ghoŕo.   | a band of horse |             |
|          | shaddo   | a turban        |             |
|          | lekho    | reckoning.      |             |

This o nearly corresponds in sound to the close English o, and never has the open Italian sound. Most words ending in o change it to av when followed by a vowel, whether this vowel commences a following word or an inflectional suffix. The o of the first eight words in the above list (*điđho* to *jo* inclusive) does not undergo this change. Go and jo are radical words, and the others end in the syllables *lo* and *kho* which probably had originally a distinct force of their own; e. g.,

|     |       |                   |   |          |
|-----|-------|-------------------|---|----------|
|     | nákho | } form the plural | { | nákhoán  |
|     | jo    |                   |   | joán     |
| but | phalc | } are inflected   | { | phalavá  |
|     | jaddo |                   |   | jaddavá. |

Đihav 'leopard' may be classed with words ending in o, though I have never heard the termination pronounced otherwise than av. This v is a purely labial sound, not the English v.

U. ú as a termination does not seem to occur in pure Balochi words. It is found in a few words of Sindhi origin and undergoes no change in inflections; e. g.,

|        |                 |
|--------|-----------------|
| ánú,   | an egg          |
| ťilú,  | a bell          |
| varú,  | a beam          |
| límúa, | lemon (Arable). |

E has not been met with except in *kahne* 'pigeon,' also pronounced *kahní*.

Au is only found in *jau* 'barley.'

### 3. Special terminations.

#### (a). Verbal Nouns,

*Agh*. This is the termination of the infinitive, and verbal noun which corresponds with it in form. It apparently corresponds with the Pashto verbal noun in *ah*, as final *gh* in Balochí generally corresponds with Persian *h*. *Agh* as a termination corresponds with the Persian termination *ah* in many other nouns; e. g., *ramagh* "a flock of goats," *áhanjagh* "a sash" &c. Some are verbal nouns in form as *gwánzagh* "a swing." The termination *agh* also forms collective nouns as *murdánagh* "the fingers," from *murdán*, *phádagh* "legs," from *phádh*.

**Okh.** This termination forms the noun of agency from the Verbal base, and may be used with almost any verb; e.g., *thursokh* "a coward," from *thursagh* "to fear;" *warokh* "an eater," from *waragh*. These nouns of agency can be used and inflected as adjectives; e. g.,

*mipokh*, a fighter

*mirokhen* bing, fighting dog.

**Okh** is occasionally found in other nouns besides those of agency as in *gannokh* 'fool.'

(b) *Abstract Nouns.*

Í. This is the commonest termination for abstract nouns, which may be formed from other nouns, or adjectives; e. g., *duzí* "theft," *sakmardi* "valour," *ghamí* "grief."

**Adh.** Used in forming abstracts from adjectives of dimension; as,  
*gwandádh*, shortness  
*drázhádh*, length  
*phráhdh*, breadth.

*útá*; as *azmútá* 'examination' from *ázmainagh*.

*ár*; as *dídár* 'sight,' *raftár* 'paces.'

(c) *Collective Nouns.*

**Agk.** See above under verbal nouns.

**gal.** This is most usually employed to form collectives; e. g.,

*jangal*, a band of women from *jan*.

*zahgal*, a flock of kids from *zah*.

*pahar*, as *gwar-pahar*, a flock of lambs.

(d) *Diminutives.*

**Ak, akh, ikh.** This termination is frequently employed to form diminutives, sometimes modifying the base; e. g.,

*janikh* or *jinkh* girl, from *jan* woman

*gwarakh* lamb, from the base *gwar*—cf. *guránd ram*, and *gwar-*

*papar* flock of lambs.

*kisánakh* very small, from *kisáin*.

This termination is occasionally used when all diminutive signification has been lost, as *wasarikh*, "father-in-law," (Persian *khusar*).

**Ro**, occasionally used, as in *kisánro*, a diminutive of *kisáin* 'small.' Possibly the termination *lo* in *dítklo*, *shátklo* had originally the force of a diminutive. Compare also the adverbs *khamro* "a very little," from *khan*, and *chiklo* "a little."

4. Compound nouns and adjectives.

Compounds are numerous, and may be classed under the Sanskrit

divisions of Dwandwa, Tatpurusha, Karmadháraya and Bahuvrīhi, or Copulative, Qualifying, Descriptive and Possessive.

a. Copulative. This class consists of nouns inseparably coupled together, only the latter being subject to inflection ; e. g.,

phol-phurs, enquiry  
thaukh-tawár, conversation  
chukh-chorí, children.

b. Qualifying or dependent. In this class the latter member of the compound is qualified by the former. The latter member may be either a noun or a verbal root, the verbal noun in *okh* being occasionally but not often used ; e. g.,

(1.) When both members are nouns.

jogin-dár, a pestal (lit. mortar-stick).  
mazár-dumb, a plant (lit. tiger-tail).  
rosh-ásán, sunrise.  
ohagá-hálwar, a matter of jest.  
chham-phusht, eyelid.  
máh-ghumá, eclipse of the moon.

(2.) When the first member is a noun and the latter a verbal root.

shírwár, milk-drinking  
roz-h-gír, eclipse of the sun (sun-seizing).  
godhán-din, udder-tearing (name of a plant).  
shav-khash, night-expeller (the planet Venus).  
mar-khushokh, man-slayer.  
sangband, connected by marriage.

c. Descriptive. In this class the first member is an adjectives, numeral or other word simply describing or defining the second ; e. g.,

syah-áf, perennial stream, (lit. blackwater).  
drázhdár, a beam (longwood).  
mádhgor, female wild ass.  
ergwáth, the leaside (lit. downwind).  
chyár-gíst, fourscore.

d. Possessive. These are formed in a similar manner to the last class, with the force of adjectives or descriptive epithets, the possession of the qualities described being implied ; e. g.,

hor-dast, empty-handed.  
phásh-phádh, barefoot.  
sweth-rísh, greybeard  
syáh-gwar, black-breast (e. g. the black partridge).  
phodhán-demí, the name of a flower (lit. thither-faced).  
dír-zánagh, far-knowing.  
dast-basthagh, hands joined.

## 5. Inflection of nouns.

The suffixes used in forming the different cases are *á*, *ár*, *egh*, *án*, *ánr* and *ání*, but these suffixes are put to a great variety of uses which will be considered under the different cases.

The most usual inflection is that in *á*. It may be used as an instrumental or nominative with verbs in a past tense, as an accusative, ablative, and locative, its place is to a certain extent taken in the plural by the suffix *ání*, the use of which is however more restricted.

(1) *The Nominative.* The nominative of all intransitive verbs, and of transitive verbs in the present and future is the simple uninflected noun. With transitive verbs in tenses derived from the past participle the instrumental construction is employed, the inflected form in *á* being used for the agent while the object is left uninflected.

(2) *Genitive.* In most cases the simple base is used with a genitive signification, but if greater precision is required the suffix *egh* is used, as *Án mard bachh*, that man's son; but *hawé bachh áhí mardegh e*, he is the son of that man.

(3) *Dative.* The termination *ár* or *ar* is employed for the dative, as: *Mardumár naghaná dátha-í*, he gave the man bread.

(4) *Accusative.* The most usual ending of the accusative is *á*, but *ár* is frequently used, especially when emphasis is required or to distinguish a nearer object from a more remote; e. g., *má Balochiyá roṭí-ár naghan khanun*. In Balochí we call "*roṭí*" *naghan*.

The uninflected noun is also sometimes used for the accusative.

(5) *Ablative, Locative.* The inflected form in *á* is used with the prepositions *go* "with," *azh* "from," *pha* "on," *man* "in," *gwar* "in possession of," *dan* "into," and *avr* "in, upon," which alone precede the noun. It also expresses without a preposition position, motion to or from, time when. The meaning *from* is often implied without the use of the preposition *azh*; e. g.,

|                                     |                                             |
|-------------------------------------|---------------------------------------------|
| <i>Án ki khái chí kádhirá</i>       | Whatever thing comes from God               |
| <i>Bahr-khanáni go hádhirá</i>      | That I will divide with my heart.           |
| <i>Har shákhá házár shákh bítha</i> | On every branch a thousand branches sprang. |
| <i>Har shákhá wathí gul bítha.</i>  | On every branch its own flower.             |

*Plural.*

(6) *Án.* The termination *án* is used for the nominative and accusative plural, but the singular forms are perhaps more frequently used. With numerals the singular is almost exclusively used.

*ánr*. The plural dative in *ánr* is also of rare occurrence, the singular being more frequently used.

*áni*. This is the most usual plural suffix, being always used for the genitive and ablative; e. g.,

*pakhtáni khund*, the vale of poplars.

(7). The suffix *e*.

*e* is used in the sense of an indefinite article; e. g., *mard* 'man'; *marde* 'a man.'

The indefinite base formed by the suffix *e* is used as a base of inflection, the case endings following the *e*. Thus from *mardo* we get *mardeá* and *mardeár*.

### ADJECTIVES.

1. Adjectives are formed by the terminations *í*, *en*, *ena*, *agh*, *o*, and *egh* from nouns and adverbs; e. g.,

|                          |                               |      |               |
|--------------------------|-------------------------------|------|---------------|
| <i>í</i>                 | <i>demí</i> , former          | from | <i>dem</i>    |
|                          | <i>phadhí</i> , hinder        | „    | <i>phadhá</i> |
| <i>en</i> , <i>ena</i> . | <i>marden</i> , manly         | „    | <i>mard</i>   |
|                          | <i>nughraen</i> , } of silver | „    | <i>nughra</i> |
|                          | <i>nughraena</i> , }          |      |               |
| <i>agh</i> .             | <i>gandagh</i> , bad          | „    | <i>gand</i>   |
| <i>o</i> .               | <i>gwátho</i> , windy         | „    | <i>gwáth</i>  |
| <i>egh</i> .             | <i>daregh</i> , wooden        | „    | <i>dár</i>    |

2. Adjectives precede nouns and generally take the termination *en* when used with nouns, unless the original termination happens to be *en*; as,

*nughraen áden*, a silver mirror

but

*gwáthoen halwar*, windy talk.

The adjectives *jowain*, good, *kisain*, small, and *mazain*, great, form respectively before nouns *jowánen*, *kisánen*, and *mazanen*.

3. Comparison. The comparative degree is formed by the suffix *thar*, *thir*, or *tar*; e. g.,

|               |       |                                     |
|---------------|-------|-------------------------------------|
| <i>kisain</i> | comp. | <i>kisánthar</i> and <i>kasthar</i> |
| <i>burz</i>   | „     | <i>burzáthir</i>                    |
| <i>mazain</i> | „     | <i>masthar</i>                      |
| <i>jowain</i> | „     | <i>jowánthar</i>                    |
| <i>sak</i>    | „     | <i>sakthar</i> ,                    |

the base being sometimes slightly modified. The word *bathir* (Pers. *bihtar*) is sometimes used with other adjectives to express comparison; as,

*bathir gandagh*, worse.

The word *geshtar* "more" corresponds to the Pers. *beshtar*, but the positive is wanting in Balochí.

"Than" in comparison is expressed by *azh*, whether the adjective is put in the comparative degree or not; e. g.,

*Azh tho nekʰ en, hé is better than thou.*

There is no special superlative form. The comparative form may be used, or the adverbs *sakíá* "extremely", *hudʰái* "divinely" may be employed to give emphasis to the adjective. The phrase *azh thewaghen* or *azh kulʰá* "of all", may also be used with the comparative to give a superlative sense; e. g.,

*Azh thewaghen masthar, the greatest of all.*

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## NUMERALS.

### 1. CARDINAL NUMBERS.

|            |                                 |
|------------|---------------------------------|
| Yak }      | One                             |
| Ya }       | Two                             |
| Do         | Three                           |
| Sai        | Four                            |
| Chyár      | Five                            |
| Phanch     | Six                             |
| Shash      | Seven                           |
| Hapt       | Eight                           |
| Hasht }    |                                 |
| Hazhd }    |                                 |
| Nuh        | Nine                            |
| Dah        | Ten                             |
| Yázhdah }  | Eleven                          |
| Yázdah }   |                                 |
| Dwázhdah } | Twelve                          |
| Dwázdah }  |                                 |
| Senzdah    | Thirteen                        |
| Chyárdah   | Fourteen                        |
| Pházdah    | Fifteen                         |
| Sházdah    | Sixteen                         |
| Havdah     | Seventeen                       |
| Hazhdah    | Eighteen                        |
| Nozd       | Nineteen                        |
| Gíst       | Twenty                          |
| Gíst-u-yak | Twenty-one                      |
| Gíst-u-do  | Twenty-two, and so on regularly |
| Sí         | Thirty                          |
| Chhil      | Forty                           |

|                     |                               |
|---------------------|-------------------------------|
| Phanjáh             | Fifty                         |
| Sai-gíst            | Sixty                         |
| Saigíst-u-dah       | Seventy                       |
| Chyár-gíst          | Eighty                        |
| Chyárgíst-u-dah     | Ninety                        |
| Sadh                | A hundred                     |
| Shazh-gíst          | A hundred and twenty          |
| Hapt-gíst           | A hundred and forty           |
| Hasht-gíst          | A hundred and sixty           |
| Nuh-gíst            | A hundred and eighty          |
| Dosadh              | Two hundred                   |
| Hazár }<br>Hadhár } | A thousand .                  |
| Lak                 | One hundred thousand          |
| Khof                | An indefinitely large number. |

The form *ya* "one" is used with nouns ; *ya* is used by itself.

Counting from sixty upwards is usually done in multiples of twenty, intermediate numbers being reckoned on or back from the nearest multiple ; e. g.,

217 is *sai kham yázhdah-gíst, i. e.*, three less eleven-twenties.

228 is *yázhdah-gíst-o-sai, i. e.*, eleven-twenties and three.

## 2. ORDINAL NUMBERS.

|           |             |
|-----------|-------------|
| Pheshí    | First       |
| Duhmí     | Second      |
| Saimí     | Third       |
| Chyárumí  | Fourth      |
| Phanchumí | Fifth       |
| Shashumí  | Sixth       |
| Haptumí   | Seventh     |
| Hashtumí  | Eighth      |
| Nuhmí     | Ninth       |
| Dahmí     | Tenth       |
| Yázdámí   | Eleventh    |
| Dwázdámí  | Twelfth     |
| Senzdámí  | Thirteenth  |
| Chyárdámí | Fourteenth  |
| Phánzdámí | Fifteenth   |
| Shánzdámí | Sixteenth   |
| Havdámí   | Seventeenth |
| Hazhdámí  | Eighteenth  |

|          |            |
|----------|------------|
| Nozdamí  | Nineteenth |
| Gístumí  | Twentieth  |
| Síumí    | Thirtieth  |
| Chhilumí | Fortieth   |
| Sadhúmí  | Hundredth  |
| Hazárumí | Thousandth |

Compound numbers are treated as single words in forming the ordinal; as,

|                |              |
|----------------|--------------|
| Gíst-yakumí    | Twenty-first |
| Gíst-phanchumí | Twenty-fifth |

### 3. FRACTIONAL NUMBERS.

|                                          |                 |
|------------------------------------------|-----------------|
| one-half ( $\frac{1}{2}$ )               | nem             |
| one-third ( $\frac{1}{3}$ )              | saiak           |
| one-quarter ( $\frac{1}{4}$ )            | páo, chyarak    |
| one-fifth ( $\frac{1}{5}$ )              | phanjak         |
| three-quarters ( $\frac{3}{4}$ )         | sai-páo         |
| one and a half ( $1\frac{1}{2}$ )        | yak nem or deqh |
| with one half more                       | sáqhoán         |
| e. g. four and a half ( $4\frac{1}{2}$ ) | sáqhoán chyár   |

With minuter fractions the word bahr is employed with the ordinal number, as Gístumí bahr, one-twentieth.

### 4. MULTIPLES.

a. Multiples of quantity, expressed in English by the word "fold."

|             |           |
|-------------|-----------|
| dúrá        | double    |
| yake sai    | threefold |
| yake chyár  | fourfold  |
| yake phanch | fivefold  |

and so on as required.

b. Multiples of time expressed generally by the word bar corresponding to the similar use of "times" in English. Bar is put in the plural except in ya-bare "once", where it receives the indefinite suffixes. Thi-bare "another time" is similarly constructed :

|             |            |
|-------------|------------|
| ya-bare     | once       |
| do-barán    | twice      |
| sai-barán   | thrice     |
| chyár-barán | four times |

and so on.



## PRONOUNS.

## I.—PERSONAL PRONOUNS.

## a. First person.

|        |   | Singular.           |             |
|--------|---|---------------------|-------------|
| Nom.   |   | man, mah            | I           |
| Gen.   |   | maní, maín<br>maígh | my<br>mine  |
| Dat.   | } | manáñ               | me, to me   |
| Acc.   |   |                     |             |
| Instr. | } | man                 | I, from me  |
| Abl.   |   |                     |             |
|        |   | azh man, go man     | with me &c. |
|        |   | Plural.             |             |
| Nom.   |   | má                  | we          |
| Gen.   |   | maín<br>maígh       | our<br>ours |
| Dat.   | } | már, márá           | us, to us   |
| Acc.   |   |                     |             |
| Instr. | } | má                  | we, us, &c. |
| Abl.   |   |                     |             |

The plural *má* is often used with a singular signification.

## b. Second person.

|        |   | Singular.                |               |
|--------|---|--------------------------|---------------|
| Nom.   |   | thau, tha                | thou          |
| Gen.   |   | thaí<br>thaígh           | thy<br>thine  |
| Dat.   | } | thará                    | thee, to thee |
| Acc.   |   |                          |               |
| Instr. | } | thau, tha                | thou, &c.     |
| Abl.   |   |                          |               |
|        |   | Plural.                  |               |
| Nom.   |   | shawá, shá               | you           |
| Gen.   |   | shawái, shái<br>shawáígh | your<br>yours |
| Dat.   | } | shawár, shár             | you           |
| Acc.   |   |                          |               |
| Instr. | } | shawá, shá               | you           |
| Abl.   |   |                          |               |
|        |   | &c.                      |               |

The singular and plural in the second personal pronoun are generally confined to their proper significations.

## II.—THIRD PERSONAL PRONOUN AND DEMONSTRATIVE PRONOUNS.

The demonstrative pronouns "this" and "that" take the place of the 3rd personal pronoun, which only exists independently in the form of the pronominal suffixes to be noticed hereafter.

## 1. Proximate demonstrative pronoun.

| Singular. |                            |                         |
|-----------|----------------------------|-------------------------|
| Nom.      | esh, e, í                  | this, he                |
| Gen.      | eshí, eshiyá               | of this, his            |
| Dat.      | eshiyar                    | to this, to him         |
| Acc.      | eshiyá, eshiyar            | this, him               |
| Instr.    | eshiyá                     | he                      |
| Abl.      | 'sh eshiyá, go eshiyá, &c. | from this, from him &c. |
| Plural.   |                            |                         |
| Nom.      | esh, eshán                 | these, they             |
| Gen.      | eshání                     | of these, their         |
| Dat.      | eshánrá                    | to these, to them       |
| Acc.      | eshán, eshánrá             | these, them             |
| Instr.    | eshání                     | these, they             |
| Abl.      | 'sh eshání &c.             | from them &c.           |

An intensive form is used with the prefix ham, sometimes corrupted to haw, as hawe, hamesh, hameshiyá, hameshání &c., "this very one, by this one."

## 2. Remote demonstrative pronoun.

| Singular. |                 |                  |
|-----------|-----------------|------------------|
| Nom.      | án              | that, he         |
| Gen.      | ánhí, ánhiyá    | of that, his     |
| Dat.      | ánhiyar         | to him, that     |
| Acc.      | ánhiyar, ánhiyá | that, him        |
| Instr.    | ánhiyá          | that, he         |
| Abl.      | 'sh ánhiyá &c.  | from him &c.     |
| Plural.   |                 |                  |
| Nom.      | ánhán, án       | those, they      |
| Gen.      | ánhání          | of those, their. |
| Dat.      | ánhánrá         | to those, them   |
| Acc.      | ánhán, ánhánrá  | those, them      |
| Instr.    | ánhání          | those, they      |
| Abl.      | 'sh ánhání &c.  | from them &c.    |

This pronoun has also an intensive form with the prefix ham or haw, meaning "that one", "that very one", as hawán, hawánhiyá &c.

The compound forms *imar* and *ámar* (for *i-mard* and *án-mard*) are frequently used in the sense of personal pronouns and are applied even to animals and inanimate objects.

### 3. Pronominal suffixes.

These are frequently employed with the verb when the regular pronouns are not expressed. Those of the 3rd person, *í* "he" and *ish* "they" are most frequently employed, the distinction between the singular and plural forms not being carefully observed. (For examples, see under the verb.) The suffix *án* is also sometimes used in the 3rd person as *khuthaghántán* "they did." The 1st person has also a suffix *ún*, which is not so frequently used. With this suffix the verb takes a peculiar form, a euphonic *t* being inserted to strengthen the weak final nasal of the 1st person singular or plural, as *khushthaghántán* or *khushthaghántún* "I or we killed."

### III.—RELATIVE PRONOUNS.

The word *ki* performs most of the duties of a relative pronoun, as in Persian, and often merely has the meaning of a relative particle, being indeclinable, so that the meaning is not complete without the use of other pronouns; e. g.,

*E mard hameshen ki eshiyá birázhá má gipthaghún*, this is the man whose brother we have taken.

The following relative phrases are used :

|                    |                        |
|--------------------|------------------------|
| <i>har khas ki</i> | whoever                |
| <i>har ki</i>      | } whatever             |
| <i>har chí ki</i>  |                        |
| <i>án ki</i>       | who, whoever, whatever |

e. g.,

*har khas ki khákh*, every one who comes

*har ki thau gushe*, whatever you say

*an ki khái' chí kádhírá*, whatsoever thing comes from God.

### IV.—REFLECTIVES.

*Wath*, self.

Singular.

|         |                 |                |
|---------|-----------------|----------------|
| Nom.    | <i>wath</i>     | self           |
| Gen.    | <i>wathí</i>    | own, one's own |
| Dat. }  | <i>wathár</i>   | self           |
| Acc. }  |                 |                |
| Plural. |                 |                |
| Nom.    | <i>wathán</i>   | selves         |
| Gen.    | <i>watháni</i>  | own            |
| Dat. }  | <i>wathánrá</i> | selves         |
| Acc. }  |                 |                |

The words *jind* and *but* are also used in the sense of "self."

oneself, *wathí wath*  
or *wathí jind*

e. g.,

*Ambar wathí jindár khushta*, he killed himself.

*Jind* is especially used in referring to one's own private property, as the *Hindústání nij*; e. g.,

*hawé mádhin maní jindeghen*, this mare is my own property.

The phrase *pha-wathán* is used for among themselves, ourselves, yourselves.

#### V.—INTERROGATIVES.

Who, *khái*?

Sing. and Plur.

|           |                                 |                                                    |
|-----------|---------------------------------|----------------------------------------------------|
| Nom.      | <i>khái</i>                     | who?                                               |
| Gen.      | <i>kháigk</i>                   | whose?                                             |
| Dat. Acc. | <i>kháiár</i>                   | whom?                                              |
|           | what?                           | <i>chih</i>                                        |
|           | which, what (qualifying a noun) | <i>kithán thán</i>                                 |
|           | how much                        | <i>chikhtar, chikar</i><br>( <i>P. chi qadr?</i> ) |
|           | how many?                       |                                                    |

#### VI.—CORRELATIVES.

|                |   |                                            |
|----------------|---|--------------------------------------------|
| so much        | } | <i>ikhtar, ikar</i>                        |
| so many        |   | ( <i>P. in qadr?</i> )                     |
| just so much   |   | <i>hawikhtar</i> ( <i>P. hamín qadr?</i> ) |
| that much      |   | <i>ánkhtar</i>                             |
| just that much |   | <i>hawánkhtar</i>                          |

#### VII.—INDEFINITE.

|                    |                   |         |
|--------------------|-------------------|---------|
| <i>khase</i>       | any one, some one |         |
| <i>har-khas</i>    | every one         |         |
| <i>khas nen</i>    | nobody            |         |
| <i>hech</i>        | }                 | any     |
| <i>hechí</i>       |                   |         |
| <i>'chí</i>        |                   |         |
| <i>har-chí</i>     | everything        |         |
| <i>'chíe</i>       | something         |         |
| <i>'chíe-'chíe</i> | a little          |         |
| <i>hechí-na</i>    | }                 | nothing |
| <i>'chí-na</i>     |                   |         |

|                        |   |                |
|------------------------|---|----------------|
| báz                    |   | many           |
| kham                   |   | few            |
| geshtar                |   | more           |
| kharde                 |   | some           |
| yak-áptiyá             |   | one another    |
| thí                    | } | other, another |
| phít <sup>h</sup> i    |   |                |
| thí khase              |   | some one else  |
| thí 'chie              |   | something else |
| thí 'chí-na            |   | nothing else   |
| theg <sup>h</sup> i    | } | all            |
| thewag <sup>h</sup> en |   |                |
| drust                  | } | the whole      |
| kull                   |   |                |
| las                    |   |                |
| kullán-phajyá          |   | altogether     |
| hardo                  |   | both           |

### STRUCTURE OF THE VERB.

The simplest form or base of every verb is with one or two exceptions identical in form with the 2nd pers. sing. imperative. From this base are formed immediately, by the addition of certain terminations, the imperative, aorist, infinitive and present participle. The termination of the infinitive is *agh*. From the base so obtained two more tenses, the present and imperfect, are formed. The past participle is formed from the base in a manner which will be described hereafter, and other past participles are formed from it as a base.

(a). Forms derived immediately from the base.

The imperative, as observed above, generally is the simplest form of the base. Verbs beginning with vowels take the prefix *ba* or *bi*, and the verbs *waragh* "to eat" and *ravagh* "to go" also form their imperatives *bawar* and *baro*. Verbs beginning with vowels take also the prefix *bi* or *kh* in the aorist. These prefixes are not used either in the imperative or aorist when a negative is expressed, the negative particles *na*, *ni* and *ma* taking their place; e. g.,

|                     |                  |
|---------------------|------------------|
| riyár               | bring            |
| mayár               | do not bring     |
| bilán               | I will let       |
| nelán               | I will not let   |
| kháit <sup>h</sup>  | he will come     |
| nayáit <sup>h</sup> | he will not come |

The prefix *kh* is most usually taken in the aorist, but the verb *ilagh* "to let" always takes *b*.

The aorist has both indefinite, present, future and subjunctive significations. The terminations are as follows :—

| Singular.                 | Plural.            |
|---------------------------|--------------------|
| 1. <i>án</i>              | <i>ún, om</i>      |
| 2. <i>e</i>               | <i>eth, edh, e</i> |
| 3. <i>th, th̄, íth, í</i> | <i>ant</i>         |

The most usual termination of the 3rd person singular is *íth*, which often becomes simply *í*. The following take *th* :—

| Infinitive                  | 3rd pers. sing. aorist. |
|-----------------------------|-------------------------|
| <i>khanagh, to do</i>       | <i>khanth</i>           |
| <i>janagh, to strike</i>    | <i>janth or jath</i>    |
| <i>giragh, to take</i>      | <i>girth</i>            |
| <i>baragh, to take away</i> | <i>bárth</i>            |
| <i>waragh, to eat</i>       | <i>wárth</i>            |

In *giragh*, *gír* is the radical form of the verb. In *baragh* and *waragh* the radical vowel is lengthened. The following take *th̄* ;—

|                       |                 |
|-----------------------|-----------------|
| <i>biagh to be</i>    | <i>bíth, bí</i> |
| <i>ravagh to go</i>   | <i>roth, ro</i> |
| <i>deagh to give</i>  | <i>dáth, dá</i> |
| <i>siagh to swell</i> | <i>síth</i>     |

The present participle used of a continued or repeated action is formed from the base by the termination *ána* ; e. g.,

| Infinitive     | Present Participle. |
|----------------|---------------------|
| <i>biagh</i>   | <i>bíána</i>        |
| <i>khanagh</i> | <i>khanána</i>      |

The infinitive in *agh* is a noun and can be inflected. The inflected form has a gerundial signification ; e. g.,

*khanagh, to do, doing.*

*-khanaghá khapta-í, he began to do (lit. he fell a-doing).*

The present and imperfect are formed from the infinitive by the following terminations :

## PRESENT.

| Sing.        | Plur.              |
|--------------|--------------------|
| 1. <i>án</i> | <i>áún, áom</i>    |
| 2. <i>e</i>  | <i>e, eth</i>      |
| 3. <i>en</i> | <i>ant, an, en</i> |

## IMPERFECT.

|                    |               |
|--------------------|---------------|
| 1. <i>athán</i>    | <i>athún</i>  |
| 2. <i>athe</i>     | <i>athe</i>   |
| 3. <i>ath, eth</i> | <i>athant</i> |

The past participle is formed by the addition of the suffix *tha* or *the* to the base which is liable to modifications to be noted below. For purposes of composition the past base ends in *gh*. (See sounds, *gh*.) From the base so formed the perfect and pluperfect are formed by the following terminations :

## PERFECT.

|              |               |
|--------------|---------------|
| 1. <i>án</i> | <i>ún, om</i> |
| 2. <i>e</i>  | <i>e, eth</i> |
| 3. —         | <i>ant</i>    |

## PLUPERFECT.

|                  |               |
|------------------|---------------|
| 1. <i>athán</i>  | <i>athún</i>  |
| 2. <i>athe</i>   | <i>athe</i>   |
| 3. <i>ath, á</i> | <i>athant</i> |

The 3rd pers. singular of the perfect is the simple form of the past participle without the *gh*. In transitive verbs with an object and agent, this form expresses the perfect throughout, the agent being in the inflected or instrumental form, while the object is uninflected; *e. g.*,

*mardumá naghan wártha*, the man ate bread,

where *mardumá* is the inflected form of *mardum*. But—

*mardum naghanár wárth*, the man will eat bread.

Here *mardum* is uninflected and *naghan* receives the objective inflection.

The terminations of the present are nearly identical with those of the perfect, and those of the imperfect, with the pluperfect. Both seem to be formed by the addition of the present and past forms of the defective verb *to be* to the infinitive base and the past base respectively. The present with the infinitive base forms the present, with the past base the perfect. Similarly the past forms the imperfect and pluperfect. These forms are as follows :

## PRESENT.

|          | Sing.     |          | Plur.      |
|----------|-----------|----------|------------|
| I am     | <i>án</i> | we are   | <i>ún</i>  |
| thou art | <i>e</i>  | you are  | <i>e</i>   |
| he is    | <i>en</i> | they are | <i>ant</i> |

## PAST.

|           |              |           |               |
|-----------|--------------|-----------|---------------|
| I was     | <i>athán</i> | we were   | <i>athún</i>  |
| thou wast | <i>athe</i>  | you were  | <i>athe</i>   |
| he was    | <i>ath</i>   | they were | <i>athant</i> |

The plural forms *ún, e, athún, athe*, when used with a pronoun immediately preceding, take the prefix *kh*; *e. g.*,

|                  |         |
|------------------|---------|
| <i>má khún</i>   | we are  |
| <i>má khatún</i> | we were |

But this prefix is never used when a noun or adjective immediately precedes.

From the simple past participle which has both an active and passive signification are formed two other participles; *viz.*, (1) the active past participle, used of a completed action and only found before a verb in a past tense. This is formed by changing the termination *tha*, *tha* into *tho*. (2) The present participle used of a continued but not repeated action. This is formed by changing *tha* or *tha* in *thiyá*, *thiyá* or sometimes *thighá*, *thighá*.

The use of the four participles may be shown as follows :

|         |   |                                                           |                                |
|---------|---|-----------------------------------------------------------|--------------------------------|
| Past    | { | dáragh, to hold.                                          |                                |
|         |   | dáshtha, held.                                            |                                |
|         |   | dáshto, having held.                                      |                                |
| Present | { | dáshthiyá                                                 | } holding, continuing to hold. |
|         |   | or                                                        |                                |
|         |   | dáshthighá,                                               |                                |
|         |   | dárána, holding (with intervals), keeping on taking hold. |                                |

#### FORMATION OF THE PAST PARTICIPLE.

The termination is either *tha* or *tha* which is added to the base. *Tha* is the more usual. It is taken by all verbs whose bases end in a vowel. Verbs ending in mutes take *tha* as a rule, with a short vowel inserted after the characteristic; *e. g.*, *bashkagh* "to give," P. P. *bashkatha*. When a verb corresponds with a Persian verb in *ídan*, a short *i* is sometimes inserted; *e. g.*,

*rasagh*, to arrive P. P. *rasitha* (P. *rasídan*).

*thursagh*, to fear P. P. *thursitha* (P. *tursídan*).

When *tha* is used it is always attached to the base without an intervening vowel. This leads frequently to the modification of the characteristic of the base, the changes corresponding closely with those which take place in Persian. In some verbs the vowel of the base is also changed, and others are wholly irregular. Verbs whose characteristic is *n* (a class which includes all causals) take the termination *tha* without any modification of the base.

The most usual changes of characteristic letters are *sh* and *zh* to *kh*, *f* to *p*, *dh* and *z* to *s*. Many verbs in *sh* and *s*, take the termination without modifying the characteristic.

The following list gives the past participles of all the irregular verbs, also most of those which form their past participle by taking *tha* without modification of the base. The verbs beginning with vowels which take the prefixes *b*, *bi* and *kh* in the imperative and aorist are also given.

| Infinitive |          | Past Participle           |
|------------|----------|---------------------------|
| áragh      | to bring | ártha                     |
| ásagh      | to rise  | ástha                     |
| ashkhanagh | to hear  | ashkhu <sup>h</sup> tha   |
| ágh        | to come  | ák <sup>h</sup> tha, átká |



| Infinitive.                                  |                      | Past Participle.        |
|----------------------------------------------|----------------------|-------------------------|
| aksagh                                       | to sleep             | akastha                 |
| ilagh                                        | to let               | ishtha                  |
| oshtagh                                      | to stand             | oshtátha                |
| oshtalainagh (causal of oshtagh)             |                      | oshtalaintha.           |
| (The above take the prefixes b, bi, and kh.) |                      |                         |
| básagh                                       | to low               | bástha                  |
| bágh                                         | to be killed         | báitha                  |
| baragh                                       | to take away         | burtha                  |
| bresagh                                      | to spin              | brestha                 |
| bushkagh                                     | to discharge (a gun) | bukhtha                 |
| bozhagh                                      | to open              | bokhtha                 |
| bandagh                                      | to shut, tie         | bastha                  |
| biagh                                        | to be                | bítha                   |
| phadeagh                                     | to run               | phadátha                |
| phrushagh                                    | to burst             | phrushtha               |
| phashagh                                     | to cook              | phakká                  |
| thusagh                                      | to faint             | thustha                 |
| thosagh                                      | to extinguish        | thostha                 |
| thashagh                                     | to run, gallop       | thakhtha                |
| tháshagh                                     | to gallop (a horse)  | thákhtha                |
| jágh                                         | to chew              | jáitha                  |
| janagh                                       | to strike            | jaitha                  |
| chinagh                                      | to pick up           | chitha                  |
| dinagh                                       | to tear              | dirtha                  |
| doshagh                                      | to milk              | dushtha                 |
| doshagh                                      | to sew               | dokhtha                 |
| dogh                                         | to fetch water       | dotha                   |
| deagh                                        | to give              | dátha                   |
| ravagh                                       | to go                | shuttha, shudha, raptha |
| rudhagh                                      | to grow              | rustha                  |
| radhagh                                      | to tear up           | rastha                  |
| runagh                                       | to reap              | rutha, runtha           |
| resinagh                                     | to pursue            | resintha                |
| rishagh                                      | to scatter, pour     | rikhtha                 |
| zágh                                         | to bring forth       | zátha                   |
| zánagh                                       | to know              | zántha                  |
| zinagh                                       | to snatch            | zitha, zitha            |
| ziragh                                       | to raise             | zurtha                  |
| sushagh                                      | to burn, be burnt    | sukhtha                 |
| soshagh                                      | to burn (tr.)        | sokhtha                 |
| sindagh                                      | to break             | sistha                  |

| Infinitive.        |                   | Past Participle.  |
|--------------------|-------------------|-------------------|
| <i>siagh</i>       | to swell          | <i>sítha</i>      |
| <i>shudhagh</i>    | to hunger         | <i>shustha</i>    |
| <i>shodhagh</i>    | to wash           | <i>shustha</i>    |
| <i>shastagh</i>    | to send           | <i>shastátha</i>  |
| <i>shamúshagh</i>  | to forget         | <i>shamushtha</i> |
| <i>shawashkagh</i> | to sell           | <i>shawakhtha</i> |
| <i>hashagh</i>     | to pull, turn out | <i>hashtha</i>    |
| <i>khishagh</i>    | to cultivate      | <i>khishtha</i>   |
| <i>khushagh</i>    | to kill           | <i>khushtha</i>   |
| <i>khafagh</i>     | to fall           | <i>khaptha</i>    |
| <i>khanagh</i>     | to do             | <i>khuttha</i>    |
| <i>kizagh</i>      | to allow          | <i>kishtha</i>    |
| <i>gágh</i>        | to copulate       | <i>gátha</i>      |
| <i>grádhagh</i>    | to boil           | <i>grásthá</i>    |
| <i>gardagh</i>     | to return         | <i>gartha</i>     |
| <i>giragh</i>      | to take           | <i>giptha</i>     |
| <i>giregh</i>      | to weep           | <i>girentha</i>   |
| <i>guzagh</i>      | to pass           | <i>gwastha</i>    |
| <i>gushagh</i>     | to speak          | <i>gwashtha</i>   |
| <i>galágh</i>      | to praise         | <i>galáitha</i>   |
| <i>gindagh</i>     | to see            | <i>dítha</i>      |
| <i>gwáfagh</i>     | to summon         | <i>gwáptha</i>    |
| <i>gwaragh</i>     | to rain           | <i>gwartha</i>    |
| <i>gwafagh</i>     | to weave          | <i>gwaptha</i>    |
| <i>gezhagh</i>     | to bear abortion  | <i>gikhtha</i>    |
| <i>gieshagh</i>    | to pay, pick out  | <i>gieshtha</i>   |
| <i>láinagh</i>     | to touch          | <i>laittha</i>    |
| <i>laghushagh</i>  | to slip           | <i>laghushtha</i> |
| <i>lawáshagh</i>   | to drink          | <i>lawáshtha</i>  |
| <i>madhagh</i>     | to freeze         | <i>mastha</i>     |
| <i>miragh</i>      | to die            | <i>murtha</i>     |
| <i>miragh</i>      | to fight          | <i>miratha</i>    |
| <i>mizhagh</i>     | } to urine        | <i>mishtha</i>    |
| <i>mezagh</i>      |                   |                   |
| <i>mishagh</i>     | to suck           | <i>mishtha</i>    |
| <i>mushagh</i>     | to rub            | <i>mushtha</i>    |
| <i>nigoshagh</i>   | to listen         | <i>nigoshtha</i>  |
| <i>nindagh</i>     | to sit            | <i>nishtha</i>    |
| <i>nyádhagh</i>    | to post           | <i>nyástha</i>    |
| <i>wánagh</i>      | to read           | <i>wántha</i>     |
| <i>wapsagh</i>     | to sleep          | <i>waptha</i>     |

| Infinitive. |        | Past Participle. |
|-------------|--------|------------------|
| waragh      | to eat | wártha           |
| hushagh     | to dry | hushtha          |

---

*Causals.* The causal is commonly formed by adding the suffix ain to the root ; e. g.,

t<sup>h</sup>aragh, to return.

t<sup>h</sup>arainagh, to cause to return, i. e., to give back.

Oshtagh "to stand," and nindagh "to sit," form their causals thus :—

oshtagh—oshtalainagh.

nindagh—nishtainagh (to lay, spread out.)

Some of the verbs given in the above list are causals, the intransitive verb becoming transitive by a change in the radical vowel resembling the Sanskrit *guṇa* or *vṛiddhi*, see—

sushagh, soshagh ; thashagh, tháshagh ; thusagh, thosagh.

*Compound Verbs.* Verbs are compounded with prepositions, with nouns and with other verbs. The most common of those compounded with prepositions will be found under the words *اير* er "down," *مع* mán "in ;" *در* dar "out ;" and *گون* gon "with" in the vocabulary. In verbs which take the prefixes bi, b, and kh these are inserted after the prepositions, as are also the negative particles na and ma ; e. g.,

phajyá together. Arag<sup>h</sup> to bring.

phajyá árag<sup>h</sup>, to recognize.

phajyá khárit<sup>h</sup>, he will recognize.

phajyá nayártha, he did not recognize.

Compound phrases of a noun and a verb are common. The verb, *khanagh* "to do," *deagh* "to give," *janagh* "to strike," and *giragh* "to take" are most commonly used in this way ; e. g.,

sar giragh, to set out

dem deagh, to send

One verb frequently qualifies another, the two verbs being used in the same tense and person throughout. The active past participle is never used unless followed by another past tense ; e. g.,

ilagh deagh, to let go

bilán deán, I will let go

ishtho dátha, he let go

t<sup>h</sup>aragh ágh, to come back

t<sup>h</sup>arán khán, I will come back

t<sup>h</sup>artho ák<sup>h</sup>thaghathán, I had come back

*The particles i and ish.* These particles are appended to verbs and take the place of the pronouns of the 3rd person when not expressed before the verb. The singular form is *i* and the plural *ish*, but in practice they are used almost indiscriminately. They express (1) the agent of the verb in the 3rd person; (2) the object of an action, or the instrument by which it was performed; e. g.,

- (1) *khutha*, did or done  
     *án khutha* }  
     or            }  
     *khutha-i*, } he did  
     *ravaghathant-i*, they were going  
     *jatha-ish*, they struck  
     *hechí nestath-i*, there was none of it (lit. anything it was not).
- (2) *wath gindith-i*, he will see himself  
     *man kharán-i*, I will bring it  
     *barkhas phajyá-khárith-i*, every one recognizes him.

*Verbal Noun.* From most verbs a verbal noun of agency can be formed by the suffix *okh* being added to the base; e. g.,

*giragh*, to take; *girokh*, taker, creditor  
*khushagh*, to kill; *khushokh*, murderer.

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### ADVERBS.

A great part of the Balochí adverbs are more properly adverbial phrases, only a few being original adverbs. Many are nouns in oblique cases, others phrases of several words.

#### (1.)—ADVERBS OF TIME.

|                          |                                         |
|--------------------------|-----------------------------------------|
| now                      | ní, nín                                 |
| then                     | <i>hadhen</i> , <i>án-vakhhtá</i>       |
| when ?                   | <i>khadhen</i>                          |
| to-day                   | <i>maroshí</i> , <i>mar'shí</i>         |
| yesterday                | <i>zí</i>                               |
| the day before yesterday | <i>phairí</i>                           |
| three days ago           | <i>phisphairí</i>                       |
| last night               | <i>doshí</i>                            |
| night before last        | <i>pharandoshí</i>                      |
| to-morrow                | <i>bánghá</i> , <i>bánghavá</i>         |
| the day after to-morrow  | <i>thí bánghá</i> , <i>phithí-roshé</i> |
| in the evening           | <i>begahá</i>                           |

|                         |                                          |
|-------------------------|------------------------------------------|
| to-morrow evening       | báughá-begahá, nawáshí-begahá            |
| now-a-days              | nínava <del>k</del> htá, maroshí-nawáshí |
| formerly                | olá                                      |
| first, before           | pheshá                                   |
| afterwards              | phadhá                                   |
| hitherto                | shedh-pheshá                             |
| henceforward            | shedh-phadhá, shedh-demá                 |
| yet, till now, hitherto | dáin, dání, dánkoh, danikará             |
| always, perpetually     | harro                                    |
| now and then            | } damdame, dame dame                     |
| at one time and another |                                          |
| once                    | yabare                                   |
| at once                 | yabará                                   |
| again                   | agh, aghdí, aghathán                     |
| then, again             | gudá                                     |
| another time            | thíbare                                  |
| at last                 | ábirá                                    |
| early                   | phagen                                   |
| at daybreak             | rosh-tiká                                |

## (2).—ADVERBS OF PLACE.

## a. Rest in a place.

|                      |                            |
|----------------------|----------------------------|
| here                 | edh, edhá, hamedh, hamedhá |
| there                | odh, odhá, hamodh, hamodhá |
| before, in front of  | demá                       |
| behind               | phadhá, díma, pha-díma     |
| near                 | nazí, nazíkh               |
| far                  | dír                        |
| out                  | dar                        |
| outside              | darrá                      |
| above                | kharghá, burzá             |
| below                | jahlá, sher, buná          |
| down                 | er                         |
| on, ahead            | sará                       |
| where ?              | bakhú ?                    |
| on this side         | inbará, shinbará           |
| beyond, on that side | ánbará, shánbará           |
| everywhere           | harhandá                   |
| nowhere              | thíhandá                   |
| elsewhere            | hizhgarnes                 |
| anywhere             | hizhgar.                   |
| in the middle        | nyámá                      |

## b. Direction to or from.

|                      |                                          |
|----------------------|------------------------------------------|
| hither               | phedh, phedhá, ingo, ingwar              |
| thither              | phodh, phodhá, ángo, ángwar,<br>phawángo |
| hence                | shedh, shedhá, shamedhá, shingo          |
| thence               | shodh, shodhá, shamodhá, shángo          |
| whither ?            | thángo ?                                 |
| whence ?             | ashkho ?                                 |
| in this direction    | in-phalawá                               |
| in that direction    | an-phalawá                               |
| from this direction  | 'shín phalawá                            |
| from that direction  | 'shán-phalawá                            |
| in every direction   | har-phalawá                              |
| in what direction ?  | thán-phalawá ?                           |
| onwards, upwards     | sará                                     |
| downwards            | erá, sheri -pahnádhá                     |
| from above downwards | sará-erá                                 |
| inwards              | andará                                   |
| outwards             | darrá                                    |

## (3).—ADVERBS OF QUANTITY.

|                          |           |
|--------------------------|-----------|
| much, many               | báz       |
| few, little, less        | kham      |
| a little                 | chíklo    |
| very little              | khamro    |
| more                     | geshtar   |
| enough                   | gwas, bas |
| a great deal, any amount | khōr      |

## (4).—ADVERBS OF MANNER, &amp;c.

From most adjectives an adverb of quality or manner may be formed by the suffix *iyá*, the adjective being sometimes slightly modified ; e. g.,

|              |                   |
|--------------|-------------------|
| gandagh, bad | gandaghiyá, badly |
| jowain, good | jowaniyá, well    |

Other adverbs of manner are :

|          |                |
|----------|----------------|
| very     | sakía, sakíghá |
| together | phajíá         |
| quickly  | zíthen         |

|                                  |                            |
|----------------------------------|----------------------------|
| perhaps                          | nawán, kaizán              |
| why?                             | pharche                    |
| altogether, certainly, doubtless | mundo, be-shak             |
| thus                             | hanchho, hachho            |
| how?                             | chachho? chon?             |
| in this way                      | e-ranga, e-r'gá            |
| in that way                      | ánrangá, ár'gá             |
| every way                        | harrangá                   |
| in what way?                     | thánrangá                  |
| never                            | hechí-na, 'chína, mundo na |

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PREPOSITIONS.

There are few prepositions, properly speaking, in Balochí, as most of the particles so used follow the noun and would be more correctly called postpositions.

The following are prepositions proper and precede the noun which is governed in the oblique form (ablative or locative).

|               |                                      |
|---------------|--------------------------------------|
| go            | with, together with, in company with |
| gwar          | with, near, in possession of         |
| pha           | on, for, among                       |
| mas, mán      | in, into                             |
| das           | into, to, up to                      |
| azh, ash, shi | from, than                           |
| avr           | on, into                             |

From the above, some prepositional phrases are formed, of which the first member precedes, and the last follows the governed noun.

|             |                 |
|-------------|-----------------|
| go—gon      | in company with |
| go—phajyá   | together        |
| azh—siwá    | except          |
| azh—darrá   | without         |
| pha—randá   | on the track of |
| azh—phalawá | away, from      |
| azh—phadhá  | behind          |

The postpositions do not put the noun governed in an oblique tense in the singular. The force is often that of the genitive, which has no distinct form in the singular, but as might be expected the genitive plural is often used. Pronouns also take the genitive in the singular.

|                      |                        |
|----------------------|------------------------|
| on                   | sará                   |
| on, upon             | chakhá                 |
| towards              | nemghá, neghá, phalawá |
| on account of        | sángá                  |
| along with           | phajya                 |
| in                   | nyámá, nyámwás         |
| out of               | darrá                  |
| near                 | khund, gwará           |
| before, in front of  | demá                   |
| behind, after        | phadhá                 |
| before (in time)     | pheshá                 |
| over                 | sará, kharghá          |
| under                | buná                   |
| beyond               | 'shánbará              |
| on this side of      | 'shinbara              |
| for, on account of   | pbar                   |
| in the presence of   | rúbarú                 |
| in, in the middle of | láfá                   |
| like                 | daulá, wájh            |

*Examples.*

|                         |                                 |
|-------------------------|---------------------------------|
| khoh buná               | under the hill                  |
| khoháni sará            | on the hills                    |
| go wakhí sardará        | with his own chief              |
| drogh pha ímáná khátáen | falsehood is a blot upon honour |
| dast jant avr barziyá   | she puts her hand into the bag  |
| eshiyá phadhá           | after this                      |
| thái sánghá             | on your account                 |
| bozhí láfá              | in the boat                     |

## CONJUNCTIONS.

|                                   |                                             |
|-----------------------------------|---------------------------------------------|
| also, too                         | dí                                          |
| both, and                         | dí, dí                                      |
| and, then                         | guḍá                                        |
| and (copulative between<br>nouns) | o                                           |
| when                              | vaḥhtá-ki                                   |
| whenever                          | án-vaḥhtá-ki, har-vaḥhtá-ki,<br>har-velá-ki |
| wherever                          | har-handá-ki, handá-ki                      |



|                        |                      |
|------------------------|----------------------|
| whithersoever          | har-phalawá-ki       |
| if                     | ki                   |
| that                   | ki                   |
| but                    | lekin (rare)         |
| or                     | ki, hai              |
| either, or             | hai, hai             |
| neither, nor           | na, na               |
| not                    | na                   |
| „ (with imperatives)   | ma                   |
| else, otherwise        | na                   |
| lest                   | cho-ma-ví-ki         |
| because, in order that | hawe-sangá-ki        |
| although               | agharchi (rare)      |
| until                  | dáñ ki               |
| as, like as            | chon-ki, chachhon-ki |

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 INTERJECTIONS.

|                          |                               |
|--------------------------|-------------------------------|
| yes                      | hau !                         |
| yes, certainly           | bale !                        |
| no                       | na, inná                      |
| see there                | gind                          |
| behold                   | marvehí                       |
| yes, sir                 | wázhá !                       |
| my lord                  | wázhá maní, sáín !            |
| welcome !                | biyá durr sh'á'khte, biyáthai |
| all's well               | mahairá                       |
| well done                | wáh                           |
| bismi'lláh               | in God's name                 |
| salám alaik, alaik salám | greetings between Musalmáns   |
| phrr                     | fie !                         |
| O                        | halloa.                       |

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## LIST OF ABBREVIATIONS.

|        |     |                  |       |     |              |
|--------|-----|------------------|-------|-----|--------------|
| A. Ar. | ... | Arabic.          | Poet. | ... | Poetical.    |
| P.     | ... | Persian.         | Adj.  | ... | Adjective.   |
| Panj.  | ... | Panjabi.         | Adv.  | ... | Adverb.      |
| P.P.   | ... | Past Participle. | Prep. | ... | Preposition. |
| S.     | ... | Substantive.     | Br.   | ... | Brahoi.      |
| Si.    | ... | Sindhi           | M.    | ... | Masculine.   |
| Skr.   | ... | Sanskrit.        | F.    | ... | Feminine.    |
| V.     | ... | Verb.            | Cf.   | ... | Compare.     |
|        |     |                  | H.    | ... | Hindī.       |

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*Note.*—The Arabic letters ق ن ع ط ظ ض ص ح are not used in this vocabulary, having no distinct pronunciation. They are represented by ک ت ز س and ا when they occur in borrowed words.

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# VOCABULARY.



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(Words beginning with vowels.)

- آب *Ab*, P. (metaphorically) honour, dignity. Not used in the meaning water. (*Ab er-kanagh*) to disgrace.
- ابا *Abbá*, A. Br. father, papa. (Used by children.)
- ابا *Ubbá*, Si. north.
- ابتر *Abtar*, *hyæna*, (P. *kaftár*.)
- ابریشم *Abresham*, P. silk.
- ابناخ *Abnákh*, P. honourable, worthy.
- اُبهار *Ubhár*, Si. raising. (Poet. in the phrase 'uchál-ubbár' lowering and raising.)
- اِپتیا *Aptiyá*. Only in the phrase 'yak áptiyá,' among themselves.
- اِبورس *Apúrs*, (P. *ávran*, *árus*) the Juniper tree. (*Juniperus excelsa*.)
- اِبهان *Aphán*, a leather bag for flour.
- اِبهرغ *Aphiragh*, p.p. *áphirta*, (Si. *áphirjnu*) to swell.
- ات *Ath*, was. 3rd pers. singular of past indef. of the verb to be. The complete tense is *athán*, *atheí*, *ath*, *athún*, *atheí*, *athant* or *athan*.
- اُجال *Uchál*. S. See *Ubhár*.
- اچا *Achá*, (Si. *achho*) clean.
- اُجام *Ajám*, (P. *anjám*) settlement, arrangement.
- اِجب *Ajab*, (A. عجب) wonderful. *Ajab-rang*, beautiful, purple-coloured.
- اُخرا *Akhirá*, A. utterly, extremely.

- ادب Adab, A. good manners.  
 أدت Adit, }  
 أدتوار Aditwár, } Si. Panj, Sunday.  
 ادغ Adagħ, v., to pitch a tent, encamp.  
 أدین Aden, }  
 ازینه Azína, } a mirror.  
 ادّ Ad, Si. a masonry watercourse.  
 ادّ دینغ Ad-deagh, v., to lean.  
 ادّاد Adđá, Si. Br. brother (familiarly).  
 ادّرخ Uđragħ, (Si uđırnu,) to fly.  
 ادّوهی Uđohí, Si. a white ant.  
 ادّی Adđí, S. Br. sister (familiarly).  
 آرام Áram, P. rest.  
 آرته Árth (P. árad) flour.  
 ارد Urd, an army. (P. urdú.)  
 ارزان Arzán, adj. P. cheap.  
 ارسی Arsí, adj. Si. idle.  
 ارغ Aragħ, p.p. ártha; imp. bi-ár; fut. khárám. (P. ávardan, bi-ár) to bring. Kára áragħ, to use. Phajjá áragħ, to recognize. Gír-áragħ, to remember.  
 ارمان Armán, pity. P.  
 اروخ Árokh, bringer. Verbal noun from áragħ.  
 ارینغ Aríkh, gums.  
 ازاب دینغ Azáb-deagh, A. Bi. to offend.  
 آزاد Azád, free. P.  
 ازبوخت Izbocht, the ajwain seed.  
 ازمان Azmán, }  
 ازمان Azhmán, } the sky. (P. ásmán.)  
 آزمایغ Azmáinagħ, to examine. P.  
 آزموتا Azmútá, examination.  
 از Azh, from. (P. az. Pázand ezh.)  
 ازگش Azhgizh, flint and steel. (Cf. P. azkhash.)  
 ازمان Azhmán. See Azmán.

- اژدرک izhwark, }  
 اژرک izhrak, } (Br. shark.) *Rhazya stricta*.  
 اژگ izhg, }  
 آس ás, fire. (P. átish).  
 آس روخ ás-rokh, a platform erected where funeral ceremonies  
 have been performed.  
 آس كهوه ás-khoh, flint (lit. firestone).  
 آسان ásán, easy. P.  
 اسپ asp, horse. (The generic term.) P.  
 اسپست uspust, lucerne grass.  
 اسپهلك isphulk, the spleen. Br.  
 استا astá, }  
 استث astath, } was. } Parts of the defective verb to be,  
 استین asten, } is, are. } to exist.  
 استنت astant, } (P. hastan. Sk. As.)  
 استار astár, star. (P. sitára.)  
 استرغ istaragh, razor.  
 استغ ástagh, slowly. (P. áhista.)  
 استور istúr, coarse, thick.  
 استین ástín, sleeve. P.  
 استین istín, a light cloud, cirrus.  
 اسر asr (a. اثر), impression.  
 اسر asur, dawn, morning twilight. Si.  
 آسر ásur (a. امر), mercy.  
 اسرار israr, mystery, secret. A.  
 آسروخ ásarokh, the third day of mourning. A platform erected  
 to commemorate it.  
 آسغ ásagh, p.p. ástha, fut. khásán, imp. biás, to rise. Ásán,  
 rising. Rosh-ásán, sunrise.  
 آسك ásk, a deer (f.) (P. áhú.)  
 آسك مهسك ásk-mahisk, a kind of fly.  
 اسل asul (a. اصل), original.  
 اسلا asulá, from the first. Asulá gannokh, a born idiot.  
 آسین ásin, iron. (Cf. P. áhan.)

- اشا ashá, a. eight o'clock in the evening.
- اش ash, from. (P. az)
- اش كوه ash-koh, whence?
- اش مودا ash-modhá (for azh hamodhá), thence.
- اش ميدا ashmedhá (for azh hamedhá), hence.
- اشنابی ashtáfi, s. quickness. (P. shitábi.)
- اشكنغ ashkanagh, p.p. ashkutá, imp. bi ashkun, to hear, listen. Compounded of ash-knanagh. (Ash = Skr. asru.)
- اشتهر ishtha, p.p. of ilagh. q. v.
- اشتغ ushtagh. See اوشتغ oshtagh.
- اغ agh, adv. conj. again, then.
- آع ágħ, p.p. ákhtha, imp. biyá, fut. khán, (P. ámadan, biyá), to come.
- phedh ágħen, } is coming.  
mana-ágħen, }
- er-ágħ, to come down.  
dar-ágħ, come out.  
mán-ágħ, be applied, suit, hit.  
Phádħ-ágħ, rise.  
dast-ágħ, get, come to hand.  
kárá-ágħ, be of use.
- آغامي ágħábi, warning. (P. ágáħ.)
- اغدی aghdí, again. Also اغ agħ. q. v.
- اغر agħar, if. (P. agar.)
- اغرچه agħarchi, although (rare).
- اغل agħl (a. عقل), intellect.
- اغما agħmá, effort, endeavour.
- آف áf, water. (P. áb, Z. áfs.)
- آف آرخ }  
آف آبی } water-bearer.
- آف بیغ agħ-bíagh, to melt, thaw.
- آف داری áf dári, irrigation.
- آف دیغ agħ-deagh, to irrigate.

- آف شيف *áf-shef*, slope, watershed.  
 آف لغر *áf-laghar*, rapid, waterfall.  
 آف مرغ *áf-murgħ*, waterfowl.  
 آف درك *áf-drik*, a kind of grass. (Panj. manihár.)  
 آفسن *áfsin*, pregnant. (Cf. P. ábista.)  
 آفشك *áfshik*, s. soup. (Cf. P. áb-zah.)  
 آفكن *áfkin*, box for holding collyrium.  
 آفم *áfim*, opium. (A. afyún.)  
 اِكْتَر *iktar*,  
 اِكْر *ikar*, } so much, thus much. (? P. Īn kadr.)  
 اكس *akas*, envy.  
 اكسغ *aksagħ*, p.p. akastha, fut. kaksí, imp. biakas, to sleep.  
 اكسرا *aksará*, generally.  
 اكل *akul* (a. عقل), intellect, wits.  
 آكهان *ákhán*, proverb, anecdote. Si.  
 آكهر *ákhār*, buttermilk. Si.  
 آكهيرو *ákhéro*, nest. Si.  
 آكيا *ukaiyá*, in that way, of that sort.  
 آكلا *akíla* (a. عقيله), celebrated.  
 اك *ag*, rate of sale.  
 الـاج *iláj*, cure. (A. علاج)  
 الـاحده *aláhida*, separate. (A. علىحدة)  
 آلسي *álsí*, idle. Si.  
 الـغ *ilagh*, p.p. ishtha, fut. kilf. imp. bil. (P. hishtan, hil),  
 to leave, abandon. *ilagh-deagh*, p.p. ishtho-dátħa, to  
 let go.  
 الكه *ulkah*, the world, the universe.  
 امب *amb*, mango. P.  
 امبازي *ambázi*, embrace. (P. ham, bázú.)  
 امبر *ambur*, forceps. P.  
 امبراه *ambráh*, servant, companion. (? P. hamráh.)  
 امبل *ambal*, mistress, lover; companion.  
 آمدن *ámdan*, income. (P. ámdan, to come.)

- امرأ imar, he, this man, this. For *im mard*.  
 عمر umar, age. (Ar. عمر).  
 أَمْوَرٌ ámur, slowly.  
 امسرو amsaro, equal in age or otherwise.  
 امل amul, mistress (see ambal).  
 افسوس amsodh, grief. (Cf. P. afsos).  
 اسمام annám, namesake. (P. hamnám.)  
 امير amír, chief.  
 آن an, dem. pro. that, he.  
 آنهي ashí. } Genitive of *án*.  
 آنهيا anhiyá. }  
 آنهيار anhiyár. Objective and dative of *án*.  
 آنبر anbar, } beyond, on that side.  
 آنبرآ anbará, }  
 اینبرآ inbará, on this side.  
 انجیر anjír, s. fig; khohí anjír, wild fig. P. see *hinjir*.  
 اندرا andará, adv. inside.  
 آندیمآ ándemá, adv. thither, that side.  
 ایندیمآ indemá, adv. hither, this side.  
 انصاف insáf, s. justice. (A. انصاف.)  
 انزی anzí, s. a tear. P.  
 آنکتار ánktar, } so much, as much as that. (P. P. ánqadr.)  
 آنکر ánkar, }  
 انگارا ángará, Tuesday. Si.  
 انگانی angane, innumerable. Si.  
 آنگو ángo, thither, in that direction.  
 اینگو ingo, hither, in this direction.  
 انماچه anmácha, an ammunition pouch. See *hambácha*.  
 آنمر ánmar, he, that man, that. (For *án mard*.)  
 آنو ánú, egg. Si.  
 آنهالا unhálá, hot weather. Si.  
 انیشغ aníshagh, s. (P. anúsha), forehead; fate, fortune.  
 آوار áwár, spoil, plunder.



- آوار *áwár*, mixed. P. *Áwár bíagh*, to mix with, join.  
 آواز *áwáz*, voice. P.  
 اوباسي *obásí*, yawn.  
 اوبهر *obhar*, east. Si.  
 اوتك *otak*, s. a halt; *otak khanagh*, to halt, encamp.  
 اوتهر *othar*, s. a dust-storm.  
 لوئغ *otigh*, s. }  
 اوتبي *otí*, s. } a tank.  
 اوجاغو *ojágho*, awake. Si.  
 اوجري *ojrí*, stomach. Si. Paj. See *sagkindán*.  
 آوداري *ávdári*, s. irrigation.  
 اور *avr*, on, upon, into. (Pázand, *awar*, on, over.)  
 اوذا *odhá*, adv. there.  
 اوزار *auzár*, tool.  
 اوربي *iwazí*, revenge, substitute. (A. عوضي.)  
 اوززا *awarzá*, pleasing, agreeable.  
 اوشتغ *oshtagh*, v. p.p. *oshtát/ha*: imp. *bosht*, to stand, stay. (P. *istádan*.)  
 اوشتلاينغ *oshtalainagh*. Causal of *oshtagh*, to post, set up.  
 ارگل *ogál*, chewing the cud. (Si. *Ogár*.)  
 اول *olá*, adv. formerly. (From A. اول.)  
 اولك *olak*, beasts of burden. (? Turkish *wulágh*.)  
 اولهه *olah*, west. Si.  
 اولبي *olí*, adj. former.  
 اوندو *ondo*, overturned. Si. *Ondo khanagh*, to upset.  
 آوهسان كهتا *auhsán-khatá*, a puzzle.  
 اوهي *obí*, }  
 اوهيل *ohíl*, } flame.  
 اوير *aver*, late. Si.  
 آ *áh*, in, ah! alas!  
 اهار *ahár*, the hot weather, the month *Ásárh* (Si. Panj. *Ahar*).  
 اهسان *ahsán*, mankind. (A. *ahsán*.)  
 آهنجغ *áhanjagh*, a sash, *kamarband*. P.

- ای e or í, prep, this.  
 ایرگا er'gá, } in this way.  
 ایرنگا erangá, }  
 اید edh, } adv. here. (Cf. Zend. aétadha.)  
 ایدنا edhá, }  
 ایر er, adv. down, below. شير sh'er, from below. (Cf. P. ser, below.)  
 ایرغ er-ágh, to come down.  
 ایربرغ er-baragh, to swallow.  
 ایرجغ er-janagh, to cast down, abase.  
 ایرشغ er-shafagh, to go down, set (of the sun). p.p. er-shutá.  
 ایروغ er-ravagh, to go down.  
 ایرشف er-shaf, s. going down. Rosh-er-shaf, sunset.  
 ایركهغ er-khafagh, v. to descend, alight.  
 ایركهغ er-khanagh, v. to lay down, place.  
 ایركواث er-gwáth, the lee-side; er-gwáthá, to lee-ward.  
 ایرنندغ er-nindagh, v. to sit down.  
 ایش esh, this. (Cf. Zend. aesha.)  
 ایمان ímán, honour.  
 این ín, pron. this.  
 ایو aiv, spot, bolt. (A. عیب.)  
 ایوکها ewakhá, alone. (Panj. hek wá.)

## ب B.

- بادشاه bádsháh, king. P.  
 بار bár, s. burden, load. P.  
 بار-bandagh, to load.  
 بار-er-khanagh, to unload.  
 بارغ báragh, adj. fine, thin, lean. (P. bári.)  
 بارو báro, } turn. Si.  
 بارے báre, }  
 بارته bārth, 3rd pers. sing. fut. of baragh.

- باز *báz*, many, much.  
*bázen wájbhá*, of many sorts.  
*bázen barán*, often.  
*bázen rangá*, many coloured.
- بازار *bázár*, bazaar. P.  
 بازو *bázú*, limb. P.
- بازیگر *bázigar*, juggler.
- باسغ *básagh*, v. to low (of cattle).  
 باغ *bágh*, s. a garden. P.  
 باغ *bágh*, v. p.p. *báit̄ha* بائنه, to be killed.
- باغار *bághár*, s. a lizard.
- باقی *báqí*, adj. remaining. A.  
 بال *bál*, s. flight.  
*bál-giragh*, to fly, take flight.  
*bál-deagh*, to let fly.
- بالذ *báládh*, figure, shape, form.
- بالذیا *báládhíyá*, adv. from below, upwards.
- بالذ *bálagh*, of age. A.
- باندی *bándí*, s. a hostage.
- بانگ *báng*, a voice, sound; cock-crow. P.
- بانگا *bángá*, } s. the morning. *Bángawá*, in the morning  
 بانگو *bángo*, } to-morrow. *Thí-bánga*, the day after to-morrow.
- بانگوهنا *bángohiná*, in the early morning.
- باندن *bándan*, a rough table.
- باؤت *báut*, refugee.
- باؤتی *báutí*, shelter, refuge.
- باهر *báhir*, s. a herd of donkeys.
- باهرو *báhrav*, s. male calves.
- بپها *baphá*, scurf. Si. *bapho*.
- بت *but*, self, oneself. (Si. *butu*, the body).
- بتار *bitár*, the two stars (forming the tail of *Ursa major*).
- بتھر *bathir*, better, very good. (P. *bihtar*).
- بتھلو *bathlo*, wooden mortar.
- بتیرة *baterá*, quail. Si.

- بیج bij, seed. Panj.  
 بچه bachh, son. P.  
 بخت bakht, fortune. P.  
 بخت والا bakhtwálá, fortunate, generous, (used in addressing superiors).  
 بخته bukhta, p.p. of bushkagh. q. v.  
 بخمل bakhmal, velvet. (P. makhmal).  
 بد bad, bad (only in Persian compounds).  
 بدخو bad-khú, ill-natured.  
 بددوا bad-duá, curse.  
 بدشکل bad-shakl, ugly,  
 بدرگا badragá, an escort.  
 بدی badí, enmity. P.  
 بدغ buđagh, v. p.p. بدته buđatka, to drown, be flooded.  
 (Si. buđanu.)  
 بد badh, s. enemy. Generally in the plural بدین badhán.  
 بدل badhal, s. a debt.  
 بر bar, a time, a season. P.  
 ya-bare, once.  
 thí-bare, again. Bázen-barán, often.  
 بر bar, s. fruit.  
 بر bar, s. a desert. A.  
 برات birát, s. brother. Birá maní, my brother!  
 براخ barákh, coarse grass found in the lower Sulaiman Hills.  
 برادر barádhar, s. brother (poet). P.  
 برادری barádharí, s. brotherhood.  
 برزاخت birázákht, s. a nephew, (brother's son). P. birádarzáda.  
 برآور baráwar, adj. equal.  
 بردست bardast, s. shoulder-blade (used in augury).  
 برز burz,  
 برزا burzá, } adj. high. upper, lofty. P.  
 برزغ burzagh }  
 برزاتهر burzáthir, adj. very lofty, higher or highest. Comp. of burz.

- برزي barzí, s. a bag.  
 برغ baragh, v. p.p. burtha برته, to carry away, bear off, remove.  
*P. burdan.*  
 Er-baragh, to swallow.  
 Dar-beragh, to defend, save.  
 برغ buragh, v. p.p. buritha برته, to cut. *P. buridan.*  
 برقه burqa, s. a veil. A.  
 برنج birinj, s. husked rice. P.  
 برو baro, } 2nd pers. sing. and plural Imperative of ravagh,  
 برويت baroeth, } go, go ye. P. burú. Skr. bhrú.  
 بروته baroth, s. moustaches. (Cf. Pashto bret.)  
 برسغ bresagh, v. pp. brestha بريسته, to spin.  
 بري buzí, s. a spring.  
 بز baz, adj. thick, coarse.  
 بز buz, s. a goat. P.  
 بشام bashám, the rains, the month of Sáwan.  
 بشك bushk, s. a horse's mane.  
 بشكغ bashkagh, v. p.p. bashkatka, to give. P. bakhshídan.  
 بشكغ bushkagh, v. p.p. bukhtka, to discharge a gun.  
 بگا baghá, s. coward, runaway.  
 بغل baghl, s. in the phrase baghl giragh, to embrace. Ar.  
 بغير baghair, except, without. Ar.  
 بکچي bukchí, horse's mane.  
 بکل bakkal, a Hindú, a trader. Ar. بقال.  
 بکھو bakhú, where?  
 بگ bag, a herd of camels. Panj. bag. Si. vagu.  
 بل bil, imperative of ilagh. Bil-dai! let go!  
 بل bal, spear.  
 بلا billá, s. medal.  
 بلرو balrú, infant.  
 بلگو balgo, dirt.  
 بلوغت balúghat, puberty. Ar.

بلی billí, cat. Hindi, Si., Panj.

بن ban, exposed surface of a stratum of rock, sandstone.

بن bun, root, bottom. P.

بنا buná, below, at the bottom.

بند band, an embankment. P.

بندر bundar, the buttocks. Si. bundaru.

بندع bandagh, v. p.p. bastha, to tie, bind. P. bastan.

Saren-bandagh, to help.

Drogh-bandagh, to lie.

بندینغ bandíkk, thread.

بنغ bunagh, baggage.

بنو banú, an embankment round a field. Si. bano.

بنی binni, a donkey's pack-saddle.

بنیاد bunyád, foundation. P.

بو bo, s. smell. P.

Gand-bo, stink.

Náz-bo, pleasant smell.

بوت bot, vermin.

بوتغ bútagh, v. p.p. bútat̄ha, to close (the eyes).

بوتغ búthagh, bracelet.

بوخته bokhta, p.p. of bozhagh. q. v.

بود bodh, a small tree producing Gúgal gum, *Balsamodendron mukul*.

بور bor, chestnut (of a horse); poetically a mare, horse Si. boru.

بور búr, a bud.

بورچی borchi, a cook. Turkish.

بوز boz, the Gúgal tree, also the drug obtained from it, *Balsamodendron mukul*. See bodh.

بوز búz, wild, savage.

بوزغ bozhagh, p.p. bokhta, to open, untie. (Cf. pázand, bozheshn, release.)

- بوژي bozhí, a boat. A.  
 بوغ bogh, a joint in wood.  
 بوف bauf, a pillow, mattrass.  
 بوکغ bokagh, (1) to bleat as a goat; (2) to be proud, frisky.  
 بولک bolak, a tribe.  
 بولي búlí, beestings.  
 بولي bolí, speech.  
 بوھاري bohári, sweeping. Si. buhári.  
 بوھتار bohtár, a host, entertainer.  
 بوھري bohári, in front.  
 بوھل bohal, a barren, salt mountain.  
 بوھره bohra, a vault, cellar.  
 بها bhá, s. price. Si. bahá. bhá-giragh, to buy.  
 بها bahá, v. the River Indus.  
 بهادر bahádúr, brave, a hero.  
 بهايگيا bhágyá, rich, well off. Si. bhágyo.  
 بهان bihán, a filly.  
 بهاندآ bhándá, a fold, enclosure, pen. Si. bhándo.  
 بهاي bahái, sale.  
 بهت bhit, a wall. Si.  
 بهتي bhattí, a kiln. Si.  
 بهر bahar, a share. P. Babar-khanagh, to deal, divide.  
 بهركھا baharkhá, the month of Chait. P. bahár.  
 بهرغ bhuragh, p.p. bhuríha, to be crushed, burst. Si. bhuraṇu  
 بهشت bihisht, heaven. P.  
 بهولو bholú, monkey. Si.  
 بهورينغ bhorenagh, v. to break, burst (transitive). Causal of  
 bhuragh.  
 Chham bhorenagh, to wink.  
 Khond bhorenagh, to kneel.  
 بهدي bhedí, s. the ankle. Si. bhedí.  
 ← be, pr. without. P.

- ٻٽو ٻٽو be-ímán, faithless.  
 ٻٽو ٻٽو be-adab, rude.  
 ٻٽو ٻٽو be-árám, uneasy.  
 ٻٽو ٻٽو be-insáf, unjust.  
 ٻٽو ٻٽو be-akul, senseless.  
 ٻٽو ٻٽو be-akulí, senselessness.  
 ٻٽو ٻٽو be-phád̄h, a snake, (lit. without feet).  
 ٻٽو ٻٽو be-dihán, thoughtless.  
 ٻٽو ٻٽو be-sanátí, useless.  
 ٻٽو ٻٽو be-sek, weak.  
 ٻٽو ٻٽو be-shak, doubtless.  
 ٻٽو ٻٽو be-shumár, innumerable.  
 ٻٽو ٻٽو be-fahmá, unintelligible.  
 ٻٽو ٻٽو be-kár, unoccupied.  
 ٻٽو ٻٽو be-gunáh, innocent.  
 ٻٽو ٻٽو be-miyár, } shameless.  
 ٻٽو ٻٽو be-hayá, }  
 ٻٽو ٻٽو be-was, helpless.  
 ٻٽو bai. Imperative.  
 ٻٽو bí, } 3rd pers. sing. fut. } of bíaḡh. Cf. Pashto ví.  
 ٻٽو bíh, } and subjunctive,  
 ٻٽو bíh̄a. Past Part.  
 ٻٽو bair, revenge. Bair-giraḡh, to take revenge.  
 ٻٽو bairí, revenge, enmity.  
 ٻٽو berání, harm, damage.  
 ٻٽو ber-khanaḡh, to surround, encompass.  
 ٻٽو bero-deaḡh, to turn back.  
 ٻٽو berí, a boat. Si.  
 ٻٽو begáh, s. evening. Begahá, in the evening. P.  
 ٻٽو bílan, s. the small intestines.  
 ٻٽو bel, (1) a friend; (2) a hoe. Si.  
 ٻٽو benaḡh, s. honey. Benaḡh-mahisk, a bee. (Cf. P. angubín.)  
 Paslito gabína.



بىنگ *bíng*, dog. *Bíng*, the Dog, *i. e.*, the middle star of the three forming the tail of *Ursa Major*. See under *Gu-ránd*. *Bíng-mahisk*, a horsefly.

بيوان *bewán*, wilderness. P. *bayábán*.

بيوخ *biókh*, possible. *Biókh-nen*, impossible. Noun of agency from *biagh*.

بيئغ *biagh* v. to be, become, p.p. *bítha*.

*Biagh-ravagh*, p.p. *bítho-shuttha*, to become, to suffice.

## پ P.

پاتار *pátár*, a hole dug for roasting meat over.

پارا *pára*, hog-deer. Si.

پارت *párat*, charge, entrusting, confidence. Si.

پاره *pára*, quicksilver. Si.

پاد *pád*, root. Si.

پاسنا *pásná*, a night attack.

پاك *pák*, clean. P.

پاكرا *pákrá*, camel's riding-saddle. Si. *pákihiro*.

پالو *pálo*, frost. P.

پالينغ *pálenagh*, to strain, sift, winnow.

پانجالى *pánjálí*, yoke (of oxen). Si. *panj*.

پاينا *páiná*, lower, eastern. P.

پت *paṭ*, s. silk. Si.

پت *paṭ*, s. confidence, trust.

پت *paṭ*, s. a bare plain. Si.

پتافا *paṭáfá*, in the heat of the sun.

پتل *pítal*, brass. Si.

پتنگ *paṭang*, s. a moth.

پتاكه *paṭsákh*, oath. Si.

پچل *pachul*, curtain or side walls of a Baloch hut.

پخت *pukht*, s. the *Bhán* tree (*Popuius Euphratica*). See *phukht*.

- پړدو paráḍḍav, s. } echo. Si. parláu.  
 پړلا parlá, s. }  
 پړوتا parútá, adj. stale.  
 پزادغ pazádagḥ, s. a step-son, (husband's son).  
 پشانگ pasháng, s. a wild man, savage, idiot.  
 پشي pashí, s. a berry.  
 پكر pakar, adj. necessary.  
 پلان palán, camel pack-saddle. Panj.  
 پلوتا palútá, curse.  
 پلینځ palíthagḥ, s. (p. falíta). The slow-match of a matchlock.  
 پندغ pindagḥ, to beg. Si. pinanu.  
 پندوخ pindoḥḥ, beggar. Noun of agency from pindagḥ.  
 پنور panwar, (also much-panwar), the Pleiades.  
 پور por, s. a flood.  
 پورغ púragḥ, v. to bury. Si. púranu.  
 پوریاه poriyáh, wages. Si. porhyo.  
 پوست post, s. poppy. Post-ḍoḍá, poppy-heads.  
 پوشغ poshagḥ, to dress. P.  
 پوشینځ poshenagḥ, to clothe. (Causal of poshagḥ.)  
 پوگوڅ pogoḥḥ, the gullet.  
 پوه poh, understanding. (Pashto poh.)  
 پوه‌کهنځ poh-khanagḥ, v. to explain.  
 پوه‌بینځ poh-bíagḥ, v. to understand.  
 پهه pha, prep. on, upon, among. P. ba. Pashto. pah. Pársí pa.  
 Pha-wathán, among themselves.  
 پهان phádh, s. foot, leg. Demi-phádh, forefoot.  
 Be-phádh, footless; a snake.  
 P. páí. Z. pádha. Skr. páda.  
 پهان‌آغ phádh-ágḥ, to arise.  
 پهان‌بهشت phádh-phusht, instep.  
 پهان‌گزار phádh-guzár, shoes.  
 پهان‌مچپه phádh-muchh, ankle.  
 پهان‌مردان phádh-murdán, toe.

- پهان مړدانغ *phádĥ-murdánagh*, toes.  
 پهان نالی *phádĥ-nalí*, shin.  
 پهان دی *phádĥí*, ring worn on a woman's toe.  
 پهان غ *phádĥagh*, wheel.  
 پهار *phár*, leisure.  
 پهارت *phárat*, charge. See *párat*. Si.  
 پهار پهغ *phárphugh*, a tree, (*Tecoma undulata*).  
 پهاری *phári*, last year. P. *pár-sál*.  
 پهاریز *phárez*, temperate. P. *parhíz*, safe.  
 پهاش *phásh*, bare; *phásh-phádĥ*, barefoot.  
 پهاشن *pháshan*, the male *márĥhor*. P. *pázan*.  
 پهانغ *phágĥ*, turban. Met. The succession to a chiefship. Si. *pág*.  
 پهانزده *phánzdah*, fifteen. P.  
 پهاهو *pháho*, hanging; a noose. Si.  
 پهپهر *phiphar*, lungs, lights. Panj. Si. *phiphiru*.  
 پهت *phut*, hair.  
 پهتکی *phitkí*, alum. Si.  
 پهت *phit*, prickly-heat.  
 پهتر *phutur*, original, genuine, thorough.  
 پهتغ *phitagh*, to turn sour. Si. *phitānu*.  
 پهتک *phutak*, short, stunted; a dwarf.  
 پهتريک *phatrick*, a bush, (*Grewia populifolia*).  
 پهت *phitĥ*, father. P. *pidar*. Pahl. *pid*.  
 پهت پهترو *phitĥ-phírú*, forefathers.  
 پهتی *phitĥí*, other, another. (In Kachí.)  
 پهخت *phukht*. See *pukht*, (*Populus euphratica*).  
 پهجي *phají*,  
 پهجیا *phajyá*, } with, in company with.  
 پهجیارغ *phajyá-aragh*, to recognize.  
 پهدو *phado*, pocket.  
 پهدئغ *phadeagh*, v. p.p. *phadátĥa*, to run.  
 پهدوما *phadímá*, adv. behind.

- پهڼا *phadhá*, afterwards.  
 پهڼدي *phadhí*, hinder, coming after.  
 پهر *phar*, prep. for, on account of.  
 پهر *phar*, a wing, feather. P. *par*.  
 پهر *phur*, full. P. *pur*.  
 پهرا *pahrá*, watch, guard.  
 پهراف *phuráf*, a young female camel up to 3 years old.  
 پهراغ *pharámagh*, to deceive, deceit.  
 پهراون *pahráwan*, long coat. Si.  
 پهراه *phráh*, broad. P. *farákh*.  
 پهراهاد *phráhádá*, } breadth.  
 پهراهي *phráhí*, }  
 پهراچهي *pharchhe*, why? on what account?  
 پهرز *phurz*, tinder. Si. *purdu*.  
 پهريشنغ *phirishtagh*, an angel. P. *firishta*.  
 پهريشغ *phrushagh*, p.p. *phrushtha*, to break, burst (intr.).  
 Cf. P. *fursúdan*.  
 پهريمان *pharmán*, command. P. *farmán*.  
 پهرو *phurú*, a moth.  
 پهري *phurí*, a musquito or sand-fly.  
 پهروه *phroh*, grey.  
 پهري *phurí*, a drop. Si.  
 پهروه *phroh*, a plant, (*Sagaretia Theesans*?).  
 پهريبنغ *phirenagh*, v. p.p. *phirenthá*, to throw, cast. Cf. P. *pará-nídan*, to cause to fly.  
 پهر *phur*, ashes.  
 پهزادغ *phizádagh*, step-son, (husband's son).  
 پهزم *phazhm*, wool. P. *pashm*.  
 پهس *phas*, a sheep or goat. Pashto *psah*.  
 پهسو *phaso*, answer. Pahl. *pasukho*.  
 پهسپهري *phisphairí*, two days before yesterday. P. *pas* + *phairí* q. v.  
 پهسغ *phusagh*, a son. P. *pisar*.  
 پهشت *phusht*, the back. P. *pusht*.

- پهشني phushtí, a chaddar or sheet for wearing.  
 پهشغ phashagh, v. p.p. phakká, to cook. P. pazídan and  
 H. pakká.  
 پهشك phaskk, a woman's garment, boddice.  
 پهكا phakká, (1) ripe, cooked; (2) a boil. H. pakká.  
 پهكې phakkí, anything reduced to powder, and taken down at a  
 gulp with water.  
 پهگرغ phagaragh, to melt, thaw.  
 پهگین phagen, early in the morning. P. pagáh, dawn.  
 پهل phul, a flower. Si. Panj.  
 پهل puhál, a bridge. P. pul.  
 پهلات phulát, steel. P. púlád.  
 پهلاغ phullagh, to rob, plunder, p.p. phullitáa. Si. phuraṇu.  
 پهلكند phulkand, sugar.  
 پهلو phalo, direction, way, side. Si. palau, edge, border.  
 Pashto, ditto.  
 پهلوا phalwá, in a direction.  
 پهلموه phulúh, nose-ring. Si. búlo.  
 پهلي phallí, section of a tribe.  
 پهلي pahlí, rib. P. pahlú.  
 پهلي phullí, the cap of a gun.  
 پهلينع phalítahagh, match of a matchlock. P. palíta or falíta.  
 پهليت phalít, unclean. P. palíd or palíz.  
 پهپمبلي phimblí, eyelash. Si. pimbiní.  
 پهناد pahnád, side, direction.  
 پهنال pahnál, flank.  
 پهنج phanch, five. P. panj.  
 پهنجك phanjak, one-fifth. (The share of plunder due to a chief.)  
 پهنجاه phanjáh, fifty. P. panjáh.  
 پهنوال pahṇwál, shepherd.  
 پهني phiní, calf of leg. Panj.  
 پهنيږ phaner, curds, cheese. P. panír.  
 پهنيږپچ phanerpuh, rennet.

- پهواد phawád, a mountain, a peak.  
 پهپهپه phúphí, paternal aunt. Si. H.  
 پهپود phodh, } there, thither.  
 پهپودان phodhán, }  
 پهپودان دیمې phodhán-demí, the common white bindweed.  
 پهپور phor, a pipe made of clay, or a leaf of phísh, *Chamarops  
 ritchieana*, twisted spirally.  
 پهپوست phost, poppy. P. post.  
 پهپوغ phogh, s. chaff. (Cf. P. púk).  
 پهپوگ phog, s. a bush, *Calligonum polygonoides*. Si. panj.  
 پهپوگرې phogrí, s. a goat given as wages to a goatherd.  
 پهپول phol, s. search, enquiry, demand. Si.  
 پهپول پهپرس phol-phurs, s. questioning. Si. P.  
 پهپول کهنج phol-khanagh, v. to ask, demand.  
 پهپولج pholagh, v. to search for. Si. pholaṇu.  
 پهپولکج pholokh, v. one who demands, a robber.  
 پهپونز phonz, s. nose. (Cf. Pashto, pazah. Brahoi, bámas.)  
 پهپودارغ phedáragh, v. p.p. phedáshta, to show.  
 پهپید phídih, s. heel.  
 پهپید phedih, } here, hither.  
 پهپیدان phedhán, }  
 پهپیدافغ phedhággh, visable. P. paidá.  
 پهپیداغین phedhágghen, is coming. See ággh.  
 پهپیدفغ phídihagh, a plant. A small species of *Euphorbia* found in  
 the southern Sulaiman hills.  
 پهپیر phír, s. an old man; phírand, an old woman; adj. old.  
 P. pír.  
 پهپیر phír, s. the jál tree, *Salvadora oleoides*. Si.  
 پهپیراری phairárá, adv. the year before last. P. pírár-sáí.  
 پهپیرك phírúk, s. grandfather.  
 پهپیری phírí, s. old age.  
 پهپیری phairí, adv. the day before yesterday. P. parí-roz.  
 پهپیغ phisagh, } a small plant. See پهپیدفغ  
 پهپیدفغ phídihagh, }

- پهیش phísh, the dwarf palm, *Chamærops ritochloana*.  
 پهیش phesh, first, before. P. pesh.  
 پهیشی pheshí, adj. former, first.  
 پهیشا pheshá, formerly, first; pheshá, bundainagh, to forestall.  
 پهیغ phígh, fat, grease. P. pih.  
 پهیقل phífal, a bush, *Daphne muoronata*.  
 پهیلا phílá, complete, full, perfect.  
 پهیمار phímáz, onion. P. piyáz.  
 پهیغ phehagh, to thrust; to enter forcibly. Si. pehaḡu.  
 پهیهی phehí, a scaffold (for watching crops). Si.  
 پیاذغ piyádhagh, a footman. P. piyáda.  
 پیئر píshar, a short grass found on the Sulaiman hills, growing  
 between the coarse tufts or gasht.  
 پیچ pech, a screw. P.  
 پیدائیش paidáish, produce. P.  
 پیغام paighám, a message. P.

## ت T.

- تابدار tábidár, obedient. A. P.  
 تابهرغ táphuragh, v. p.p. táphurishá, to stumble. Si. thábirjaḡu.  
 تاج táj, a cook's comb.  
 تار tár, wire. H.  
 تاری tári, clapping of hands. Si. tári.  
 تازیم tázím, reverence. A.  
 تاس táas, cup. (Rare.)  
 تالك كهفغ ták-khafagh, to flinch, shy (of a horse).  
 تالابالا tálabála, putting off, postponement. Si. tálo.  
 تالان tálan, a push. Tálan deagh, to push.  
 تالو tálo, the palate. Si. tárán.  
 تاه táh, odd (in numbers, as opposed to even).  
 تاهه táha, inside.  
 تاهت táhat, true, right, correct.

- تبييت tabiyat, temper. A.  
 تپال tapál, post. Si. tapál.  
 تراتهه tráth, a plant (called *maitr* in the Deraját), *Anabasis multiflora*.  
 تران trán, counsel.  
 ترنهه tirtha, mad.  
 ترش trush, harsh, sour. P. tursh.  
 ترغ taragh, v. p.p. tarathá, to swim. Si. taranu.  
 تركغ tarkagh, p.p. tarkatha, to cackle.  
 ترند trund, cruel, fierce, passionate.  
 ترهان tarhán, a young camel.  
 تري trí, an aunt (paternal). Panj. Skr. strí, woman.  
 تري زاخت trí-zákhát, a cousin (paternal aunt's son).  
 ترير trer, dew. Si.  
 تربيت trít, s. bread steeped in milk or soup.  
 تشنه tushna, s. frog.  
 تغار taghár, a small watercourse on low hills.  
 تك tak. } See ták and ták-khafagh.  
 تك كهفغ tap-khafagh. }  
 تكا tikká, swift, sharp. Si.  
 تل tal, mole.  
 تلب talab, pay. A.  
 تلغ talagh, v. to fry. Si. taranu.  
 تلي tillí, palm of hand; sole of foot. Panj. tarí.  
 تماكو tamákú, tobacco.  
 تمبلا tambelá, stable. A.  
 تمهو tumho, a plant, *Crotalaria Burhia*.  
 تند tund, maimed. Si. tuḍo.  
 تنكه tankh, narrow. P. tang.  
 تنكه tankh, a pass through a defile. P.  
 تنگ tang, girth of a horse. P.  
 تنگ دینغ ting-deagh, to drink up.  
 تنگ tung, a hole. See ṭong.  
 تنگه tangagh, to hang. Si. ṭanganu.



- توار tawár, voice, call, speech. Si.  
 توان tawán, a vessel for baking bread. P. tábá.  
 تونان tawán, battle, fight (poet).  
 توبا tobá, a spring. Panj.  
 توپ top, a cap. Si. topu.  
 توتا totá, parrot. P.  
 توخ tokh, a valley between two parallel ridges, a path through ditto.  
 توخ taukh, voice, speech; taukh-tawár, conversation.  
 توژ tauzh, adj. bitter, brackish.  
 توژ tauzh, s. a bush, *Salvadora Persica*.  
 توسغ tosagh, v. See thosagh.  
 توسینغ tosenagh, v. Causal of tosagh.  
 توف tof, cannon. P. T. top.  
 توفک túfak, gun, matchlock. P. tufang.  
 توکل tawakkul, dependence, confidence. A.  
 تونگ tong, hole. See tong.  
 تهاخ thákh, leaf.  
 تھار thár, dark. P. tár.  
 تھاف tháf, heat. P. táb.  
 تھاف tiháf, waterless. (P. tah, low and áb, water?).  
 تھافغ tháfagh, oven. P. tábah.  
 تھاشغ tháshagh, p.p. thákhtha, to gallop a horse. P. tákhthan, táz.  
 تھاشی tháshí, s. galloping; Galagh-thashí, horse-racing.  
 تھاله thála, s. a company.  
 تھان thán, which? thángo, whither? thán-rangá, how?  
 تھان thán, s. a pack-saddle.  
 تھانوان thánwán, s. damage.  
 تھپ thap, wound.  
 تھر thar, moist. P. tar.  
 تھرس thurs, } fear. P. turs.  
 تھرس thars, }  
 تھرسغ thursagh, v. p.p. thursifha, to fear. P. tursídan.

- تهوسوخ thurso $\dot{k}h$ , a coward. Verbal noun from thursag $\dot{h}$ .  
 تهوسينغ thursainag $\dot{h}$ . Causal of thursag $\dot{h}$ , to frighten.  
 تهيرغ tharag $\dot{h}$ , to return; p.p. thar $\dot{t}ha$ ; tharag $\dot{h}$ -ag $\dot{h}$ , to come back.  
 تهرونگل throngal, hail.  
 تهريغ tharainag $\dot{h}$ . Causal of tharag $\dot{h}$ , to give back, send back.  
 تهسي thusi, a small bird.  
 تهغ thusag $\dot{h}$ , v. p.p. thustha, to faint; to go out (of a lamp).  
 تهش thash, an adze. P. tash.  
 تهشغ thashag $\dot{h}$ , v. p.p. thak $\dot{k}ta$ , to run, gallop. Zend. tach.  
 تهغار شور thaghārshoz, a plant.  
 تهغرد thaghard, matting made of the leaves of the phish, (*Oxymorops ritichiana*). Cf. Pashto taghar, carpet.  
 تهب fever, heat. P. tap.  
 تھفر thafar, an axe. P. tabar.  
 تھفغ thafag $\dot{h}$ , to become hot.  
 تھل thal, a valley, an alluvial plain surrounded by hills.  
 تھل thul, a fort.  
 تھلانگ tahláng, face of an exposed rock-stratum.  
 تھلنغ thaltag $\dot{h}$ , v. to stammer.  
 تھلشک tablishk, broken edge of an exposed rock-stratum.  
 تھم tham, ambush. Si.  
 Tham-biagh, to lie in wait.  
 تھمات tuhmat, slander. A.  
 تھن thun, thirst.  
 تھنغ thana $\dot{k}h$ , thin, fine.  
 تھنگو thango, gold. P. tanka, tanga.  
 تھني thuní, thirsty.  
 تھو thau, } thou, 2nd pers. pronoun sing. nom. P. tú. Pash.  
 تھه tha, } to, tah.  
 تھورا thora, quarter (in fighting). Si.  
 تھوسع thosag $\dot{h}$ , v. p.p. thosta (causal of thusag $\dot{h}$ ), to extinguish, put out.  
 تھولغ tholag $\dot{h}$ , jackal.

تہوانگ کفر tholagh-kunar, a bush, *Zizyphus oxyphylla*.

تہوم thom, garlic. Si. Panj. Ar. توم

تہی thí, other, another.

Thí-bare, another time, again.

Thí-roshe, another day.

Thí-kase, some one else.

Thí-bángá, day after to-morrow.

Thí-hande, somewhere else.

Thí-sál, next year.

تہیر thír, bullet, arrow; thír-janagh, to shoot. P. tár.

تہیردان thír-dán, a bullet-pouch.

تہیرغ thíragh, horse's nose-bag.

تہیغ thegh, sharp, swift.

Thegháf, "swift water," name of a stream.

تہیغی theghí, all.

تہیل thíl, age (used of animals).

تہیلغ thelagh, eyeball.

تہیرغین thewaghen, all, the whole.

تہیہ thíh, a slave (male).

تیربند tírband, the constellation Orion.

تیز tez, sharp. P.

تیزغ tezhagh, a melon.

تیزغی کھوہ tezhaghí-khoh, a hone, whetstone.

تیلان telán, a push, shove. Si. thelho.

Telán deagh, to push.

## ت. T.

تبی tubí, advice. Si.

تپور tapur, felt, namda. Si.

ترامسا trámá, copper. Si. trámo.

ترپغ trapagh, to drop, drip.

ترپمغ trimagh, to drip. Si. trimanu.

ترمواف trimu-áf, dripping well, or small waterfall.

- ترڪڻ *ṭrakaḡh*, to burst (used of boils).  
 ٿوروڍار *ṭroreḡár*, a firelock.  
 ٿلو *ṭlú*, a bell.  
 ٿنڍني *ṭinḍiní*, firefly. Si.  
 ٿوبِي *ṭobí*, dive. See *ṭubí*.  
     *Ṭobí deaḡh*, to dive.  
 ٿوپو *ṭopú*, hat. Si. *ṭopu*.  
 ٿوند *ṭond*, turban, *met.* a great man.  
 ٿونگ *ṭong*, a hole. Si. *ṭungu*.  
 ٿهاهنگ *ṭháhinagḡh*, to make, construct. Si. *ṭháhanu*.  
 ٿهڙ *ṭheṙ*, a mountain peak. Panj.  
 ٿهڙيل *ṭhíṭhal*, female ravine deer.  
 ٿهڙاڻ *ṭhílagḡh*, eyeball.  
 ٿيٺونا *ṭítúná*, the bulbul.  
 ٿيٺهر *ṭítíhar*, the sand-piper, *Tringa goensis*.

## ج J.

- جابه *jábah*, quiver.  
 جار *jár*, net. Si. *járu*.  
 جار *jár*, twins. Si. *járo*.  
 جاسوس *jásús*, spy. A.  
 جاغ *jáḡh*, v. p.p. *jáitḡa*, to chew.  
 جاگرو *jágrú*, watch. Si. *jágú*.  
     *Jágrú dáragḡh*, to keep watch.  
 جام *jám*, chief. Si.  
 جان *ján*, body. P. *ján*, life.  
     *ján-jebho*, body armour.  
     *ján-shodḡagḡh*, to bathe.  
     *ján-khanagḡh*, to dress.  
 جانگوه *jángoh*, arms and armour, when girt on the body.  
 جانور *jánwar*, domestic animals. P.  
 جاهل *jáhil*, lower, east. See *jahl*.  
 جائزو *jáizo*, promise, engagement. A. *jáiz*.

- جت *jat*, camel-driver. Si.  
 جنهر *jathir*, millstone. Si. *janđru*.  
 جنه *jaŋha*, p.p. of *janagh*.  
 جخت *juċht*, scabbard of a sword.  
 جغت *juċht*, adj. even (in numbers, as opposed to odd). Pashto  
     *juċht*.  
 جر *jar*, clothes, dress.  
 جریده *jarída*, a poor man, pauper.  
 جزغ *juzagh*, to go, move.  
     *gámá juzagh*, to walk (of a horse).  
 جزخ *juzokh*. Verbal noun from *juzagh*, moving, the pulse.  
 جست *jist*, zinc. P.  
 جعدل *jaġhdal*, s a Jaŋ.  
 جعدلی *jaġhdalí*, s. the language of the Jaŋs, viz., Panjábí or Sindhí.  
 جغر *jaġhar*, liver. P. *jigar*.  
 جفت *juft*, a pair.  
 جلاه *juláh*, } an attack. Si. *julah*.  
 جلوه *juloh*, }  
 جلگو *jułgav*, a crowd.  
 جما *jumá*, Friday. Ar. *jum'ah*.  
 جمارا *jamará*, everlastingly. Si. *jamár*.  
 جب *jumb*, moving, shaking.  
 جمله *jumla*, collection, total, amount. Ar.  
 جن *jan*, s. woman. P. *zan*.  
     *jan-gal*, a band of women.  
 جنت *jannat*, } heaven. Ar. جنت.  
 جنتل *jantal*, }  
 جنهر *janthir*, } a mill, millstone. Si. *janđru*.  
 جندر *jandar*, }  
 جند *jind*, self, oneself. Si.  
     *wathí jindeġhen*, one's own.  
 جانغ *janagh*, v. p.p. *jaŋha*, to strike. P. *zadan*, *zan*.  
     *tárfi janagh*, to clap hands.  
     *chapol janagh*, to slap.

dápurá janagh, to stamp.  
 dighár janagh, to dig.  
 dafá janagh, to boast.  
 dak janagh, to solder.  
 dag janagh, to rob on the highway.  
 dil janagh, to vomit.  
 dang janagh, to sting.  
 túfak janagh, to shoot.  
 khátr janagh, to breach a wall.  
 ladhagh janagh, to kick.  
 síndá janagh, to whistle.  
 taukh janagh, to cry out.  
 goghrá janagh, to snore.  
 cháp janagh, to clap hands.  
 gwánkh janagh, to call out.

جنگه jinkh, } s. a daughter. Dim. of jan. Cf. Pashto jinaí,  
 janikh, } jínakaí.

جنگ jang, s. war. P. jung-bilá, a medal.

جو jo, s. a stream, canal. Pehl. jóí. P. júí.

syáh jo, a perennial stream.

جو jau, s. barley. P.

جواب jawáb, s. answer. A.

جوار jawár, s. a pair, yoke of oxen mate. Hind.

جوابی jawáin, good.

جوانیا jawániyá, adv. well.

جود jodh, a man, warrior.

جور jor, adj. well, strong, in health. Si. joru.

جور jaur, poison.

جور jaur, the oleander, *Nerium odorum*.

جوزو jozho, a small fly.

جورع joragh, } to make, construct. Si. joranu.  
 جورینع jorainagh, }

جوع jogh, yoke. Si. jog.

جونا júfá, avarice, usury, A. Si. jyáfa.

- جوناخور *júfákhor*, a usurer.
- جوگن *jogin*, a wooden mortar for cleaning corn.
- جوگن دار *jogindár*, stick or pestal for ditto.
- جول *júl*, a large bag.
- جوهان *jauhán*, a heap of corn at harvest. P.
- جهاتي *jhátí*, a peep. Si.
- جهار *jahár*, s. a flock of birds. Si. *jhári*.
- جهاز *jaház*, a ship. P.
- جهان *jihán*, the world.  
*dehá jiháná*, in the whole world.
- جهنغ *jhapagh*, to toss up. Si. *jhapanu*.
- جهنگ *jhatkagh*, to sob. (Cf. Si. *jhatko*, a fit of passion.)
- جهر *jhur*, clouds. Si. *jhuru*.
- جهري *jhari*, of more than one colour.
- جهگ *jhag*, foam, scum, froth, bubbles. Si.
- جهل *jhul*, carpet. Si.
- جهل *juhul*, deep.
- جهل *jahl*, low.
- جها *jahlá*, below.
- جهل بز *jahl-burz*, ups and downs, inequalities.
- جهلي *jhali*, a pankha. Si.
- جهن *jhan*, small bird (snipe?)
- جهندا *jhandá*, a flag. Si.
- جهرا *jhera*, a quarrel, Si. *jhero*.
- جهبو *jebho*, s. armour.
- جهت *jait*, camel-saddle.
- جيدى *jedí* } (f.) a companion, associate.  
 جيدري *jediri* }
- جيد *jídih*, s. pasture.
- جنگ *jígh*, s. bowstring. P. *zih*. Pushto, *jaí*. Si. *jihu*.

## چ Ch.

- چار *chábar*, short grass.
- چاپ *cháp janagh*, to clap hands.

- چاپول chápól janagh, to slap.  
 چات chátá, a well. P. cháh.  
 چارغ cháragh, v. p.p. cháritá, to look out, spy.  
 چاری chárí, a guide, spy. Si.  
 چاری چارí ascent, Si. charhí.  
 چاک chák-deagh, to split, rip up. P.  
 چازت cháút, threshold. Si. cháunthí.  
 چببه chabha, sandals.  
 چپ کهنغ chup khanagh, to be quiet. Si.  
 چپ chap, left. P.  
 چپ دست chap-dust, left hand. P.  
 چپ حوت chap-chot, crooked.  
 چپ روی chaprúí, an English rupee.  
 چپی chapí, adj. left, sinister, unlucky.  
 چت chit, woman's petticoat.  
 چت chat, roof. H.  
 چتا کهنغ chatá khanagh, to grasp, catch hold of with the arms.  
 چنر chitar, matting.  
 چنغ chaṭagh, p.p. chaṭá, to lick. Si. Chaṭanu. Lab chaṭagh,  
 to flash in the pan.  
 چنی chaṭí, s. a fine. Si.  
 چچهو chachho, how?  
 چر char, a path hemmed in by precipices on each side.  
 چر chur, a small hill torrent.  
 چرپ charp, adj. fat. P.  
 چرپی charpí, s. fat, grease.  
 چراز charaz, the houbara, (*otis houbara*). P.  
 چرغ charagh, to wander, go about. Si. charanu.  
 چرنگ chiring, s. a spark. Si. chinig.  
 چرو charo, merely, only.  
 چروخ charokh, wanderer, vagabond.  
 چررا chirra, shot.  
 چرینغ charainagh, to watch cattle, to graze. Causal of charagh.



- چری charí, madman.
- چرغ charagh, to ascend, climb. Si. chayhanu.
- چشمه chushma, a spring. P. chashma.
- چشغ chishagh, p.p. chishatha, to sneeze.
- چغرد chighird, the bábul bush, (*Acacia Jacquemontii*).
- چغل chughal, a spy.
- چغل دینغ chaghal deagh, to throw away.
- چکتر chiktar, } how much? How many? (Probably for chi  
چکار chikar, } qadr).
- چکغ chikagh, to pull, drag. Si. chhikanu.
- چکغ chukagh, to kiss.
- چکبه chukh, a child.
- چکبه چوری chukhchorí, children.
- چکبه chakha, on, upon.
- چکا chagá, testing. Chagá-hálwar, a laughing matter.
- چل chil, forty. P. chihal.
- چلاغ chillagh, to peel, scrape. P. chalídan.
- چلر chillur, peel, bark, scales.
- چلغ chilkagh, to shine, glitter. Si. chilkanu.
- چلگدغ chalgudhagh, bat.
- چللمب chulumb, s. earring. (Cf. Si. chumbulu.)
- چلو chalo, s. a ring. Si. chhalo.
- چمب chamb, a spring.
- چمبوغ chamberagh, v. p.p. chambaritha, to spring upon. Si. cham-  
baranu.
- چمبو chambo, ball of foot, claw. Si.
- چمرا chamra, bat. Si. chamiró.
- چمغ chamagh, a spring, fountain. P. chashma. See chhamagh.
- چنا chaná, opinion. (Cf. P. chanídan.) Maín chaná, in my  
opinion.
- چنچو chinjú, crowbar.
- چنده chund, }  
چندرا chundra, } point of the compass.
- چنغ chinagh, p.p. chitha, to pick up, gather, collect. P. chídan.

- چنگ chang, banjo or guitar. B.
- چوت chot, adj. crooked, bent.  
 Chot khanagh, to bend, tr.  
 Chot biagh, to bend, intr.  
 Chot chham, squinting.
- چوٲو choto, a horse-fly.
- چوا chawá, jest.
- چواگز chawágar, jester.
- چوچ chúch, little finger. Si. chích.
- چوٲٲاٲر chaupher, round.
- چورر choro, boy. Panj.
- چوري chori, orphan. Si. chhoró.
- چوري chúrí, chicken.
- چونغ chofagh, v. p. p. chofitá, to pound, thump. (Cf. P. koftan).
- چهاٲ chhatá, a well. P. cháh. Z. chittha, pit.
- چهه chih, what?
- چهل chhil, forty. P. chihal.
- چهلو chhilav, cold weather (Jan. Feb.).
- چهم chham, the eye. P. chashm.  
 chham bhorainagh, to wink.  
 chham phusht, eyelid.
- چهٲٲر chhatar, s. joke.
- چی chí for چیچی hechí, anything. P.
- چی chí, s. a thing; chíe-chíe, somewhat.
- چهار chyár, four; yake chyár, fourfold. P. chahár.  
 chyár gíst, 80; chyár kund, four-cornered.  
 chyár gíst dah, 90.  
 chyár phádh, four-footed.
- چهارده chyárdah, fourteen.
- چهارمی chyáramí, fourth.
- چیبٲر chebar, news.
- چیت آرغ chít áragh, to be crushed. Si. chitáranu.
- چیتغ chetagh, to repair, mend. Si. chetanu.

چیدغ *chedhagh*, a cairn erected to commemorate any notable event.

چیکلو *chiklo*, a little.

## خ Kh.

خازگ *kházg*, dirt.

خازگ بررخ *kházg-barokh*, sweeper.

خازگو *kházgo*, dirty.

خان *khán*, chief. See HÁN.

خاندان *khándán*, family.

خدمت *khidmat* or *khizmat*, service.

خر *khār*, a donkey (female).

خرگوشک *khargoshk*, a hare.

خرچ *kharch*, expenses.

خمیس *khámis*, Thursday.

خندغ *khandagh*, p.p. *khandit'ha*, to laugh. Su *k handagh*.

خوجا *khójá*, eunuch.

خوش *khush*, happy. See wash.

خوشی *khushí*, happiness.

## د D.

داپرا *dápurá janagh*, to stamp. Si. *dáphorá*.

دات گپت *dát'gípt*, dealings.

دار *dár*, wood.

دارغ *dáragh*, v. p.p. *dáshta*, to have, hold, hold in.

*dáshtiyá* quietly! P. *dáshtan*, *dár*.

داسن *dás*, a grass-knife; sickle.

داغ *dágh*,  
داغان *dághán*, } brand, spots, blemishes. P.

دالا *dálá*, thick.

دان *dán*, corn. P. *dána*.

- دانا *dáná*,  
 دانگو *dánkoh*,  
 دانی *dání*,  
 داهنتی *dábanthí*,  
 دائین *dáin*,  
 داهن *dáhn*, complaint. Si. *dánh*.  
 دای *dái*, nurse. P.  
 دائیمه *dáima*, for ever. A.  
 داورگر *dáwágar*, s. champion.  
 دتهان *dathán*, s. tooth. P. *dandán*.  
     *dathán-dor*, toothache.  
 دځ *dikh*, s. spindle. P. *dúk*.  
 دځغ *didhagh*, p.p. *dakhta*, to brand.  
 در *dar*, prep. out, outside. (P. *dar*, door.)  
 دربرغ *dar-baragh*, to defend.  
 درکهنغ *dar-khafagh*,  
 دراع *dar-ágh*, } to come out.  
 دررورغ *dar-ravagh*,  
 درشفغ *dar-shafagh*, } to escape.  
 درکهنغ *dar-khanagh*, to put out, expel.  
 درسرغ *dar-saragh*, to protect.  
 درگڙغ *dargezhagh*, to look out.  
 درآ *dará*, adv. outside.  
 دراخ *drákh*, s. vine. Si. *drákh*.  
 دراز *drázh*, adj. long. P. *daráz*.  
 درازان *drázhádá*,  
 درازی *drázhí*, } s. length.  
 درآه *duráh*, well, in health.  
 دراهمی *duráhí*, health.  
 دراهیا *daráhiyá*, a promise.  
 دurr *durr*, good, excellent.  
 در *durr*, an earring worn in the lobe of the ear (P. *durr*, pearl).  
 درجغ *dirjagh*, see *dinagh*, to burst.  
 درد *dard*, pain. P.

- درست drust, all, the whole. (Pashto drast.)  
 درشغ drishagh, p.p. drishtha, to bite.  
 درشغ drushagh, p.p. drushtha, to grind.  
 درشك darashk, tree. P. *dirakht*.  
 درغ diragh. See *dinagh*, to tear. P. *daridan*.  
 درمان darmán, s. medicine, spirits, gunpowder. P. *dárú*, *darmán*.  
 درنزغ dranzagh, to go swiftly (poet).  
 درنگ drang, precipice.  
 دروشم drosham, front, foremost part, shape, countenance.  
 دروغ drogh, false. P.  
     drogh-bandagh, to lie.  
     drogh-bandokeh, liar.  
 دروغ وند droghvand, lying, deceit.  
 دروه droh, false. Si.  
 دره druh, all.  
 درهاني druháni, pistol.  
 دري darri, out, outwards.  
 دريس drís, a Baloch dance, at weddings, and also (called *jhamar*,)  
     rejoicings, accompanied with shouting or groaning.  
 درين drín, rainbow.  
 دز duz, thief. P. *duzd*.  
 دزغ duzagh, to steal. P.  
 دزواگ daz-wág, bridle. (For *dast-wág*.)  
 دزواهي duzwáhi, friendship.  
 دزي duzí, theft. P.  
 دژك dazhak, s. a snipe.  
 دژمن duzhman, enemy. P. *dushman*.  
     Cf. Zend. *duzh*, in *duzhda*, evil, &c.  
 دژمني duzhmaní, enmity. P.  
 دست dast, s. hand. P.  
     dast-ágh, }  
     dast-khafagh, } to get, obtain, come to hand.  
     dast-láinagh, to touch.  
     dast-lath, walking-stick.  
     dast-khatt, signature.

- دستغ *dastagh*, handle. P. *dasta*.  
 دستور *dastúr*, custom. P.  
 دشت *dasht*, a barren plain or tableland. P.  
 دعا *du'á*, prayer. A.  
     *nekh-du'á*, blessing.  
     *bad-du'á*, curse.  
 دغار *dighár*, land, ground, level country. P. *díhár*.  
     *dighár-wázhá*, landlord.  
     *dighár-janagh*, to dig the ground.  
 دف *daf*, s. mouth.  
     *daf-janagh*, to boast.  
     *daf-dáragh*, to be silent.  
     *dafá-dár!* be silent!  
 دفار *dafár*, }  
 دوار *dawár*, } mouthful.  
 دفتر *daftar*, }  
 دوتر *davtar*, } bard. P.  
 دفسر *dafsar*, cover, lid.  
 دك *dak*, join, mending.  
 دك جنغ *dakjanagh*, to solder.  
 دكه *dukh*, needle's eye.  
 دكه *dukh*, trouble. Si.  
 دكهيا *dukhya*, with difficulty.  
 دگ *dag*, road. Si. *dagu*.  
     *dag-janagh*, to rob on the highway.  
 دگو *duggav*, s. eagle.  
 دل *dil*, s. heart, zeal. P.  
     *dil-janagh*, to retch.  
     *dil-shuzhí*, retching.  
     *dil-gír*, sorrowful.  
 دلغ *dalagh*, s. boiled rice.  
 دلکودنیغ *dalko-deagh*, to threaten.  
 دلو *dillo*, an earthenpot, *ghará*. Si. *dilo*.  
 دسب *dumb*, tail. P. *dum*.  
     *mazár-dumb*, tiger's-tail (a plant).

د مبیرو dambíro, a Baloch banjo or guitar.

د مبل dambul, a cairn erected in irony to commemorate a shameful action. P.

دن dan, a tax levied by Baloch chiefs. See dan.

دنان کرا danánkará, till then.

د نغ dinagh, }  
 د رغ diragh, } p.p. dirtha, to tear. P. darídan, din.  
 د رجغ dirjagh, }

د نر danz, dust. (Cf. Si. daj.)

د نیگر daníkar, till now.

د نیا dunyá, the world, people. A.

دو do, two. P.

دو گیسست do-gíst, forty. See chil.

د وار dawár. See dafár.

دوازده dwázdah, twelve. P.

دوازدمی dwázdamí, twelfth.

دو بر dobar, the chest.

دو بران dobarán, twice.

دو تر davtar, bard, reciter of genealogies. P. daftar.

دو ر dor, pain. { dathán-dor, tooth-ache.  
 { láf-dor, belly-ache.

دو ر daur, rich.

دو را dorá, double. Si. duhuro.

دو روخ dorokh, ill, in trouble or pain.

دو زخ dozakh, } hell. P. dozakh. Z. duzhanha. Pashto dozha<sup>kh</sup>.  
 دو ژې dozhí, }

دوست dost, friend. P.

دوشغ doshagh, p.p. dokhtha, to sew. P.

دوشع doshagh, p.p. dushtha, to milk. P.

دوشی doshí, last night. P.

د رغ dogh, p.p. dotha, to fetch water.

دو عین doghín, pregnant.

دولت daulat, wealth. A.

- دومندیل *dúmandíl*, with two turbans, *i. e.*, a man of distinction.
- دوهون *dúhon*, smoke. Si.
- ده *dah*, ten. P.
- دهان *dihán*, thought, consideration. Si. *dhyánu*.
- دهك *dhak*, hurt, injury. Si. *dhaku*.
- دهغ *dahagh*, to get, touch.
- دهل *dhul*, drum. Panj. *ḡhol*.
- دهمي *dahmí*, tenth.
- دهنگ *dhing*, powerful.
- دهور *dhúr*, dust. Si. *dhúri*.
- دهوس *dahús*, bastard, a term of abuse.
- دهوليا *dhúliyá*, dust. Si.
- دي *dí*, also. *Dí—dí*. Both—and.
- ديب *deb*, thumb.
- ديتلو *dítlo*, mist. (P. *dúd*, smoke.)
- ديك *dík*, spindle. P. *dúk*.
- ديد *dedh*, an earthen pot. See *dez*.
- ديند } sight. P. *dídár*, *díd*.
- ديذار *dídhar*, }
- ديدوخ *dídokh*, eyeball.
- دير *dír*, far, apart, separate. P. *dúr*.
- dír-zánagh*, far-seeing, wise.
- دير *der*, while, time. P. *der*.
- ديز *dez*, pot.
- ديغرا *deghrá*, large pot. P.
- ديم *dem*, face. P. *adíma*. Z. *daema*.
- ديكا *demá*, before, in front.
- ديم *dím*, back.
- ديما *dímá*, behind.
- ديه *deh*, country, land, tract, territory. Si. *ḡehu*. P. *deh*.
- Z. dazha*. Skr. *deśa*.
- ديغ *deagh*, *v. p. p. dáttha*, to give. P. *dádan*.
- dem-deagh*, to send.
- drik-deagh*, to leap.



*ilagh-deagh*, to let go.  
*sar-deagh*, to send away.  
*gon-deagh*, to accompany.  
*mán-deagh*, to apply.  
*mokal-deagh*, to dismiss.

### د D.

- دَاتو dāto, dust.  
 دَاجِي dāchí, a female camel. Si.  
 دَادِي dādí, grandmother. Si.  
 دَادِي پوتري dādēpotre, descendants of the same ancestor. Si.  
 دَان dān, desert.  
 دَانْدَالِي dāndálí, a winnowing-sieve.  
 دَانِي dānί, time, a certain time. Si.  
 دَاه dāh, alarm, war news. Si.  
 دَد did, } frog. Si. dēdaru.  
 دَدَر dēdar, }  
 دَدَو dādāv, pony, nag. Si. dādro.  
 دَرَتَغ dātagh, v., p.p. dāratāha, to fall. Si. dāhanu, p.p. dātho.  
 دَرِك drik, jump, spring.  
 دَرِكَغ drikagh, to jump.  
 دَرِكَان drakán, carpenter. Si. drakhanu.  
 دَرِكَغ dragagh, to canter. (Si. drak).  
 دَرُوه droh, falsehood, lie. Si.  
 دَرُوها drohá, false, dishonest.  
 دَسَغ dāsaḡh, v., p.p. dāsātha, to show, point out. Si. dāsanu.  
 دُكَال dukál, dearth, famine. Si. dukáru.  
 دِكِه digh, pice, copper coin.  
 دِن dan, by force, violently. Si. danu.  
 دِنپُور dānpúr, a forcible contribution.  
 دِندور dāndwar, a tooth-brush.  
 دِنگ dang, sting. Si. dāngu.  
     dang-janagh, to sting.  
 دِنْدَا dōdā, poppy-heads.

- دَدَ dōḍ, framework, bones. Panj.  
 hushken dōḍ, a dry skeleton.
- دور dor, a pond. Si. ḍhoro.
- دول dol, a bucket. Si. ḍolu.
- دِلا dāulá, the forearm. Si. ḍoro.
- دِلو dolo, cooked.  
 ḍolo biagh, to be crooked.
- دوم dom, } bard, minstrel. Si.  
 دَومب domb, }
- دَومبانی-áf, } mirage (connected with a legend  
 دَومب-klushtagh, } of a minstrel's death).
- دَونگ dōng, bottle.
- دَونگا dūngá, deep. Panj.
- دَوه doh, sin, offence. Si. dohu.
- دَوي doí, spoon. Si.
- دَهابرغ ḍháburaḡh, p p. ḍháburtha, to stumb.
- دَال dhál, shield. Si. Panj.
- دَهنن dhakan, cover. Si.
- دَهننی dhakaní, knee-pan. Si. ḍhakiñí.
- دَهنندē dhúnḍ, skeleton. Si.
- دَهینگ dhíng, crane.
- دَیتَه dīḍar, muscles, biceps.
- دَیر der, husband's younger brother. Si. ḍeru.
- دَیر dír, } body, form, shape. Si. ḍílu.  
 دَیل díl, }
- دَیلهو dēlhú, fruit of the khaler (*capparis aphylla*). Si. ḍelhu.
- دَیمبهو dembhú, wasp. Si.
- دَیو dío, lamp. Si. dío.
- دَیهو dīhav, leopard.

ر R.

- راچی ráchí, camel-driver.
- رَا rázá, painter.

- راست *rást*, true. P.  
 راستی *rástí*, truth. P.  
 راک *rák*, cheek-bone.  
 ران *rán*, thigh. P.  
 راه *ráh*, road. P.  
 راهدی *ráhdi*, fate, death.  
 راهزن *ráhzan*, head of a band of robbers. P.  
 راهک *ráhak*, cultivator. Panj.  
 رب *rabb*, God. A.  
 رپته *rapta*, p p. of *ravagh*, used in the sense of began, begun; its place in the meaning went, gone being supplied by *shutka*. P.  
 ریخته *rikhta*, p.p. of *rishagh*. q. v.  
 ریذ *riđ*, f. sheep (small-tailed). Si. *riđh*.  
 ریغ *radhagh*, p.p. *rastha*, to tear up the ground.  
 ریغ *radhagh*, to be beaten, to lose (in war or play).  
 ریغ *rudhagh*, v. p.p. *rustha*, to grow, germinate, spring up  
 mount. P. *rustan*.  
 رزینغ *razainagh*, p.p. *razaintha*, to make.  
 رس *ras*, juice, sap. Si. *rasu*.  
 رستار *rastar*, wild beasts, game.  
     *syáhen rastar*, wild swine.  
 رسغ *rasagh*, p.p. *rasitha*, to arrive. P. *rasídan*.  
 رسیدغ *rasainagh*. Causal of *rasagh*.  
 رشک *rashk*, lice.  
 ریغ *ragh*, pulse. P. *rag*, vein.  
 رغام *raghám*, collection of clouds, threatening weather.  
 رفتار *raftár*, paces. P.  
 رکبه *rakh*, s. lip.  
 رکیب *rikeb*, stirrup. P. *rikáb*.  
 رگ *rag*, vein, pulse. See *ragh*.  
 رگ *rug*, precipice.  
 رلغ *ralagh*, to mix, join. Si. *ralanu*.

- رُمب rumb, a run.  
 rumb zíragh, to run, hurry.
- رُمبَغ rumbagh, to run away, gallop, race (on foot).  
 رُمبَه ramba, chisel. Si. rambo.
- رُمَال rumál, towel. P.
- رُمَغ ramagh, flock of goats. P. ramah.
- رَن ran, married woman. Panj. ranđ.
- رَنَد rand, track, path. Si. randu.  
 sar-rand, comb.
- رَنَدَغ randagh, to comb, part the hair.
- رَنَغ runagh, p.p. rutha, to reap. Cf. Pashto, ravdal. Skr. lú.  
 رَو ro, contracted from roth, 3rd per. aor. of ravagh, will go,  
 goes, may go.  
 رَو ro, contraction for rosh, day, sun.  
 har-ro, every day, always.  
 ro-táf, heat of sun, glare.
- رُوبَهَسَك rophask, s. a fox (uncommon). P. rúbáh.
- رُوبَهَغ rophagh, a loud noise.
- رُوبَرُو rúbarú, in the presence of. P.
- رُوث roth, entrails. P. rúda.
- رُودَار rodár, bowstring, fiddlestring.
- رُود rodh, high bank of a torrent or stream. P. rúd.
- رُودَهَغ rodhagh. See rudhagh.
- رُودِهِن rodhin, madder.
- رُودِهِنَغ rodhainagh, to bring up, educate.
- رُور roř, calf.  
 roř-gal, herd of calves.
- رُوزِگِير rozh-gír, eclipse of the sun (from rosh and giragh).
- رُوش rosh, day, sun. P. roz.  
 rosh-ásán, sunrise.  
 rosh-er-shaf, sunset.  
 rosh-tiká, daybreak.  
 roshe-roshe, day by day.  
 roshe-veláe, from time to time.

- روشخ *roshagh*, a fast. P. roza.  
 روشنی *rogħan*, clarified butter, ghí. P.  
 روع *ravagh*, p.p. *shutħa*, to go. P. raftan, shuda.  
     *dar-ravagh*, to escape.  
     *mán-ravagh*, to enter.  
     *biagh-ravagh*, to become.  
 روفرور *rofro*, a fox. P. rúbáh.  
 روکھنغ *rokhanagh*, v., p.p. *rokħutħa*, to light, kindle.  
 رومست *romast*, chewing the cud.  
 رونگرا *rúngrá*, a narrow hill path.  
 روه *rúh*, soul. A. rúh.  
 روه *rah*, edge, edge of knife.  
 رهنغ *rahnagh*, edge or bank of river.  
 ریبند *riband*, fringe or horse's forehead.  
 ریت *rít*, custom. Si. ríti.  
 ریح *rekh*, sand. P. reg.  
     *sar-rekh*, cold in the head.  
 ریر }  
 ریل } rags.  
 ریز *rez*, a rope (made of cotton thread).  
 ریزم *rezam*, blight (of corn).  
 ریسغ *resagh*, p.p. *restħa*, to spin, twist. Pashto *reshal*.  
 ریسنغ *resinagh*, to pursue, chase; p.p. *resintha*.  
 ریش *rish*, beard. P.  
 ریش *resh*, gall (on the back of a horse or beast of burden).  
 ریشغ *rishagh*, p.p. *rikħtha*, to pour, spill, scatter, sow (seed).  
     P. *rikħtan*.  
 ریشینغ *rishainagh*. Causal of *rishagh*.  
 ریم *rem*, grass.  
 ریم *rem*, matter, pus. P. rím.  
 ریئغ *riagh*, cacare.

## ز Z.

- ز ا *zá*, abuse, bad language.  
 زات *zát*, tribe, caste. A.  
 زات *zát*, coloured cloth.  
 زاخت *zákht*, son (in composition). P. *záda*. Skr. *játa*.  
     *nákhozákht*, nephew (son of paternal uncle).  
     *trízákht*, nephew (son of paternal aunt).  
     *wasarzákht*, brother-in-law.  
 زاد *zád*, many-coloured, variegated.  
 زاغ *zágħ*, v. p.p. *zátħa*, to give birth, bring forth. P. *zádan*.  
 زال *zál*, woman. P.  
 زامات *zámátħ*, son-in-law. P. *dámád*. Skr. *jámátři*. Pashto *súm*.  
 زامر *zámur*, s. name of a tree.  
 زامن *zámín*, surety. A.  
 زامن گیری *zámingírí*, bail, security.  
 زان *zán*, thigh.  
 زانثو *zántho*, a., p.p. of *zánagħ*, knowingly.  
 زانغ *zánagħ*, p.p. *zántha*, to know. P. *dánistan*. Z. *zná*  
     Skr. *jná*.  
 زانمر *zánmur*. See *zámur*.  
 زایفه *záifa*, a woman. A.  
 زخم *zákhm*, a wound. P.  
 زده *zadhagħ*, wounded. (P. *zada*.)  
 زر *zar*, money. P.  
 زراغ *zarágħ*, leech. (Si. *jaru*.)  
 زرتھ *zurth*, jowar. (Cf. Pehl. *júrđák*, corn.)  
 زرد *zard*, yellow. P.  
 زردو *zardo*, yolk of an egg.  
 زردوی *zardoí*, bile.  
 زردی *zirde*, heart (poet.) Skr. *hridi*. Zend. *zaredhaya*.  
     Pashto *zřah*.  
 زور *zarúr*, necessary. A.  
 زره *zirih*, armour. P.

زړه zirib, a well.

زغر zaghar, adj. fresh, quick.

zagharan shír, fresh milk.

زك zik, a bag or "maskina" for holding ghí. (Si. jik.

Pashto zik).

زمستان zamistán. See zawistán, winter. P.

زناخ zanákh, jaws. (P. zanakh, chin.)

زناور zanáwar, animal. P. jánwar.

زنجير zanjír, chain. P.

زندغ zindagh, living. P. zinda.

زغ zinagh, v., p.p. zitha, sintha or zít/ha, to snatch, take away

forcibly.

زنگ zang, s. turnip.

زنگ zang, } rust.

زنگال zangál, }

زور zor, force, might, violence, wrong. P.

زور zivir, rough, not smooth. (Cf. Pashto zig.)

زوراخ zorákh, powerful, violent.

زوروال zorwálá, oppressor, tyrant.

زواد zawádá, scent, smell. P. zabád.

زوار zawár, pebbles.

زار zawár, rider, horseman. (P. sawár).

زوال zawál, s. injury.

زوان zawán, tongue. P. zabán.

زوستان zawistán, winter. P. zamistán.

زب zah, kid.

zah-gal, flock of kids.

زهر zahr, anger. P.

zahr-giragh, to be angry.

زهر zahr, bitter.

زهرک zahrak, the gall-bladder. P. zahra.

زهم zahm, sword.

zahm-band, swordbelt.

zahm-jano $\acute{c}$ h, swordsman.

zahm-hand, scar of a sword wound.

زهير zahír, lonely, a stranger. A.

زي zí, yesterday. P. dí-rúz.

زيانی ziyání, harm, injury. Pehl. ziyán.

زيارت ziyárat, shrine, place of pilgrimage. A.

زيست zít $\acute{h}$ , quick. P. zúd.

زيڙين zít $\acute{h}$ en, quickly.

زيخا zai $\acute{c}$ hás, s. ferns, moss, &c.

زيړغ zíragh, v. p.p. zurtha, to raise, lift.

zíragh-árag $\acute{h}$ , to fetch.

lashkar zíragh, to lead an army.

sáh zíragh, to draw breath.

rumb zíragh, to run, saughan zíragh, to swear.

زيم zím, scorpion.

زيم zen, saddle. P. zín.

zen-kanagh, to saddle.

## ژ Zh.

ژانگ zhángagh, v. to bray.

ژلوخ zhalo $\acute{c}$ h, adj. yellow.

ژله ديځ zhala deagh, v. to let go. (See ilagh.)

ژمارا zhamará, for ever. See jamará.

ژنگه کهنه zHINGA KHANAGH, to erect the tail (of a horse).

ژنگ zHING, adj. erect, perpendicular. Also the name of a  
Baloch sub-tribe.

## س S.

سابون sábún, soap. Portuguese. Ar.

ساته sáth, a káfila. Si. sáthu.

ساد sád, honest. (P. sádá, plain (?)).

سان sád $\acute{h}$ , rope (of múnj or dwarf-palm leaves).

سارته sárth, cold. P. sard.

ساري sári, rice growing or in husk. P. shálí.



- ساز *sáz-kanagh*, to play (a musical instrument).  
 ساكه *sákh*, oath. Si.  
 ساك *ság*, potherb. Si.  
 ساگي *sági*, that very one, the original. Si.  
 سال *sál*, a year. P.  
 سالخ *sálagh*, parched corn.  
 سالوخ *sálokh*, bridegroom.  
 سامبخ *sámbagh*, to favour, nourish. Si. *sámbhanu*.  
 سان *sán*, stallion, bull. Si. *sánu*.  
 سانگ *sáng*, betrothal. Si. *sangu*.  
 سانگي *sángi*, spear. Si. *sángi*.  
 ساه *sáh*, shade. P. *sáya*.  
 ساه *sáh*, breath, life. P.  
     *sáh-zíragh*, to breathe.  
 ساهدادر *sáhdár*, domestic animals.  
 ساهي *sáhi*, a pause, breathing space, fallow.  
     *sáhi-deagh*, to let land lie fallow.  
 ساين *sáin*, sir, master. Si. Skr. *swámi*.  
 ساينغ *sáinagh*, v., p.p. *sáintha*, to shave.  
     Imperative, *sá*, *sará sa*, shave the head.  
 سبئي *subí*, autumn.  
 سبئي *sippí*, shell. Si.  
 سته *sath*, a deputation to ask pardon.  
 ستي *sutí*, a musquito.  
 سجي *sijjí*, roast meat.  
 سنخ *sikh*, barren land.  
 سدها *sidhá*, straight. Si. *sidho*.  
 سدكخ *sudkagh*, to sob. Si. *sudikanu*.  
 سده } *sudh*,  
 سد } *sudh*, } knowledge, understanding. Si. *sudhi*. Pashto *sud*.  
 سن *sadh*, a hundred. P. *sad*.  
 سر *sar*, a man. Pashto, *sarai*.  
 سر *sar*, s. head, front. P.

sar-giragh, to set out.

sar-deagh, to send away.

سردر sar-dar, bareheaded. (Pashto, sadar.)

سردار sar-dár, } s. chief.  
سردر sar-dar, }

سرپوش sarposh, covering.

سرریخ sar-rekh, cold in the head.

سررند sar-rand, parting of hair.

سرناوځ sar-návagh, the morning star (poet.).

سرا sará, adv. and prep. above, upon, ahead, in front.

sará-bai, go in front.

سرایرا sará-era, adv. from above, downwards.

سربری sarbarí, upper.

sarbarí-pahnádáká, on the upper side.

سرپهڼه surphadh, } s. (Ar. صرفت), understanding.  
سرپهو surpho, }

surphadh bíagh, to understand.

سرجه sarjah, pillow.

سرساد sursád, provisions, forage. Si. sursát.

سرخ saragh, p.p. saritka, to remember.

سرغ siragh, to leap, prance. Si. siranu.

سرف suragh, to move. Si. suranu.

سرکبه sarakh, a kneading-trough.

سرگو surgo, speech, song.

سرل saral, a yearling colt. Si. sarlu.

سرم surum, hoof. P. sum.

سرنگ saring, a track. Si. suringh.

saring-janagh, to track.

سری sari, a woman's chadar.

سریں saren, loins.

saren-bandagh, to gird up the loins, help.

saren-bandí, assistance.

سریندا saríndá, } s. a sort of fiddle with seven strings of sheep's

سرنده sarindo, } gut played with a horsehair bow. Si. surando.

- سرینه sarīna, upper; western. P.  
 سرود sarodh, music.  
 سرودش sarosh, elbow.  
 سرک sarak, road. Hindí.  
 سزا sazá, punishment. P.  
 سستی sustí. See sutí.  
 سشع sushagh, p.p. sukhtha, to burn. (Intransitive.)  
 سغار saghár, adj. white-faced (of a horse).  
 سغدتا saghdattá, a small thorny plant.  
 سغر saghar, head.  
 سغرکھا sagharkha, a wild species of sinapis.  
 سغرن saghan, dung of cattle.  
 سغندان saghindán, paunch, stomach.  
 سک sak, strong, stiff, hard. P. sakkt.  
 سکتھر sakatar, a kind of partridge.  
 سکل sakal, beautiful.  
 سکمردی sakmardí, manliness, strength.  
 سکنی sakaní, Wednesday.  
 سکھن sikhagh, to learn. Si. Sikhann.  
 سکھینغ sikhainagh, to teach. Causal of sikhagh.  
 سکی saki, extreme, excess.  
 سکیا sakyá, } very, extremely.  
 سکیغا sakighá, }  
 سگ sag, skill, ability. Si. sagh.  
 سل sil, brick. Si. sir. Panj. sil.  
 سلبنده silband, brick-maker. Panj.  
 سلام salám, salutation.  
                   salám-alaik, (Ar. سلام اعلایک), salutation on meeting.  
 سلھی silhe, arms. A. salah.  
                   silhe-gal, arms and accoutrements.  
 سما samá, understanding. Si. samáu.  
 سمب samb, a hole, boring.  
                   sumb-janagh, to bore.

- سمبرای sambaráí, preparation, readiness.  
 سمبرغ sambaragh, to prepare, be ready. Si. sambhiranu.  
 سمبغ sumbagh, stitch in the side.  
 سمندر samundar, sea.  
 سند sand, barren (of offspring). Pashto shanđ. Si. shanđhi.  
 سند sand, a joint. Si. sandhu.  
 سند sund, a basket of matting. Si. sundu.  
 سندان sindán, anvil.  
 سندغ sindagh, v. p.p. sista, to break.  
     P. shikastan, shikan.  
 سنج sanj, harness. Si. sanju.  
     sanj-khanagh, to saddle, harness.  
 سنگ sang, stone (uncommon). P.  
 سنگ بند sangband, related by marriage (used of two tribes).  
 سنگتی sangatí, companions, following. Si.  
 سنگد sangad, companions, escort.  
 سنی saní, hemp. Si. sipí.  
 سنگهر sanghar, necklace. Si.  
 سوا sawá, except, without. P.  
 سواد sawád, sight, show.  
 سوارک sawarak, breakfast.  
 سواس sawás, Baloch sandals, made of the leaves of the dwarf palm.  
 سوال sawál, question. A.  
 سواه sawáh, morning. A. sabáh.  
 سوبه sobh, victory. A.  
 سود súd, interest. P.  
 سور sor, salt, brackish, saltpetre. P. shor.  
     soren-áf, brackish water.  
 سودا saudá, bargain. P.  
 سورا súrah, hero, warrior. Si. Súrihu. Z. súra, strong.  
 سوز savz, green. P. sabz.  
 سوشغ soshagh, v., p.p. sokhta, to burn. P. sokhtan, sor.  
 سوغن saughan, oath.

*sanghan-zíragh*, to take an oath.

سوف *súf*, apple. A.

سوك *sawakk*, light (in weight).

سول *sol*, the kanda or jhand tree. (*Prosopis spicigera*.)

سومر *somar*, Monday. Si.

سونارو *sonáro*, goldsmith. Si.

سوهان *sauhán*, file.

سوهنا *sohná*, beautiful. Panj.

سوهو *sohav*, guide, acquaintance.

سور *savav*, account, reason. A. *sabab*.

*savavá*, on account of.

سريف *sawetk*, white. P. *safid*.

سهال *saháral*, skilful.

سهاگ *suhág*, young unweaned camel up to six months old (f.)

سهبت *suhbat*, society. A.

سهارى *sihári*, an awl. Si. *sírái*.

سهت *sahth*, jewels.

سهر *subr*, red. P. *surkh*. Pashto *súr*.

سهر *sahr*, magic. P.

*sahr-khanoth*, magician.

سهره *sahra*, manifest, known, evident. A.

سهو *subh*, morning. Ar. *subh*.

*subh-astár*, morning star.

سهيل *subel*, autumn. The month Assú or Ásoj. A. (Sept. or Oct.)

سي *sí*, thirty. P.

سي *sai*, three. P. *sih*.

*sai-bará*, thrice.

*sai-kona*, triangle.

*sai-gíst*, threescore.

سياد *syád*, relation.

سيال *syál*, relation, guest, enemy, equal. (Pashto *síál*, equal.)

سيالدارى *syáldári*, relationship.

سياه *syáh*, black. P.

syáh-áf, }  
 syáh-jo, } perennial stream of water.

syáh-már, snake.

syáh-gwar, "black breast." The black partridge.

سياهي syáhi, ink.

سيبك sebak, wholesome.

سيث síth, profit, advantage. P. súd.

سير ser, full, satisfied.

seráf, satisfied. P. seráb.

سير sír, marriage.

sír-khanagh, to marry.

sír-bíagh, to be married.

sír-wájh, marriageable.

سيرب serab, shaving.

سیرمغ sírmugh, collyrium for the eyes. P. surma.

سیستان sístán, custom.

سیسی sesí, the chakor, also the sísí or *Ammo Perdix Boukani*.

سیشن síshin, needle. P. sozan.

سیک saiak, one-third.

سیکن síkun, }  
 سیخن síkhun, } porcupine.

síkun-tír, porcupine-quill.

سیلهي selhí, necklace of shells worn by mares, camels, oxen, &c. sí

سیم sím, boundary.

سیماندر símándar, neighbour.

سیمون símsún. See sesí.

سیمی saimí, third.

سیند sínd, hissing. (Si. síndh, whistling.)

síndá khanagh, to hiss.

سینز senz, whistling.

senzár janagh, to whistle.

سینزده senzdah, thirteen. P.

سینغ senagh, breast. P. sína.

- سيوال sewál, s. rubbish left by a flood.  
 سیه síh, spit. P. síkh.  
     tufak-síh, ramrod.  
 سیها síhá, lead. Si.  
 سینهن sehnagh, v. to bear, endure. Si. sahnú.  
 سینغ síagh, v., p.p. sítha, to swell. P. ámá-sídan.

## ش Sh.

- شا shá. See shawá, you. P.  
 شاتلو shátlo, dove.  
 شاخ shák, branch. P.  
 شادې shádhi, rejoicing, merry-making. P. shádí.  
 شار shár, (Ar. شعر), poem.  
 شاغ shágh, a small tree (*Grewia Vestita*).  
 شاغا shághá, guitar or banjo. See dambíro.  
 شال shál, blanket. P.  
 شام shám, the evening meal. P.  
 شان shán, power, powerful, honourable. Ar.  
 شان 'shán, for ashán, from that.  
     'shán-go, thence.  
     'shán-phalawá, from that direction.  
 شانند shánd, sign.  
 شانزده shánzdah, sixteen. P.  
 شانغ shánagh, backbone, nape of neck. P. shána.  
 شانكه shánkh, stony ground at foot of hills.  
 شاه sháh, horn.  
 شاه sháh, king. P.  
     sháh-murdán, forefinger.  
 شاه کپتر sháhkaptar. See shafkástir.  
 شاهد sháhid, witness. Ar.  
 شاهدي sháhidí, evidence.  
 شاهي sháhi, a 2-anna piece. P.  
 شایر sháir, (Ar. شاعر), poet.

- شب چراغ shabchirágh, firefly. P.  
 شدت shiddat, disputing, argument. Ar.  
 شادو shaddo, a turban (poet). Si. shado.  
 شدغ shudhagh, v., p.p. shustha, to hunger.  
 شُدغ shudhagh, v., p.p. shustha, to wash, intr.  
 شدي shudhí, adj. hungry.  
 شرر sharr, good, fine, beautiful.  
 شرت shart, gambling. A.  
 شردو shurdo, a small species of *Dianthus* found on the Sulaiman

## Range.

- شرا shará, a law-case. A.  
 شرم sharm, shame. P.  
 شروع shurú, beginning. A.  
 شريك sharik, partner. A.  
 شست shist, sight of a gun. P.  
 شستغ shastagh, v. p.p. shastátha, to send. Cf. P. fristádan.  
 شش shash, six. P.  
 ششمي shashumí, sixth.  
 شار shár, poem. A.  
 شغر shaghar, sharp, harsh (in speech).  
 شغان shaghán, scorn, mockery.  
 شغین shighín, upside down, topsy-turvy.  
 shighín-bíagh, to be upset.  
 شف shaf night. P. shab.  
 shaf-chirágh, firefly.  
 shaf-kástir, a plant. *Sophora Griffithii*.  
 shaf-khor, nightblind.  
 شفانكه shafánkh, shepherd, goatherd. P. shabán.  
 شفاك shafak, s. iron peg on which a mill stone revolves.  
 شك shakk, doubt. A.  
 شكار shikár, hunting, sport. P.  
 شكارى shikárí, hunter.  
 شكر shukr, thanks. A.



شكهل shakhal, tamarisk sugar. (The manna produced in the hot weather on *Tamarix articulata* and *Tamarix gallica*).  
P. shakar.

شكهل shakhal, adj. sweet, fair.

شلوار shalwár, }  
شلور shalwar, } the loose trousers worn by Balochis.

gwáth-shalwar, puffed up, proud.

شم sham, boundary, water-parting.

شمبر sham, branch.

شمشغ shamushagh, } p.p. shamushta, to forget. Cf. P. fará-  
شموشغ shamúshagh, } moshídan.

شمول shamol, water-parting.

شنز shinz, the camel-thorn. (*Alhagi Mauroram*.)

Cf. Pashto, zoz.

شنيكه shanikh, kid (f.)

شوكش shav-kash. For shaf-kash, the night-expeller, i. e. Venus,  
the morning star.

شوا shawá, }  
شا sh'á, } you. P. shumá.

شوانكه shawánkh. See shafánkh, shepherd.

شودغ shodhagh, p.p. shustha, to wash. P. shustan.  
ján-shodhagh, to bathe.

شورغ shoragh, saltpetre. P. shora.

شوشكغ shawashkagh, v., p.p. shawakhtha, to sell. (Cf. P. farokh-  
tan).

شوكغ shúkagh, to smell.

شوم shúm, miser, avaricious. Ar.

شوهازكهنگ shúház-khanagh, to like, prefer.

شهر shahr, town, village. P.

شهور shahúr, good manners. Ar.

شي sh'í. Contraction for ash-í, from this.  
sh-í phalawá, from this direction.

شيدى shídí, a negro. Ar.

شيد shedh, hence, from here. (For ash-edh.)

شید پھدا *shedh-phadhá*, henceforward.

شیدا *shedhá*, hence.

شیلخان *shíkhān*, s. cloth in which the flour from the mill is collected.

شیر *shír*, milk. P.

*shír-wár*, suckling, unweaned.

*shír-deokh*, milch.

*shír-doshokh*, milker.

*shír-dán*, bladder.

شیر *sher*, under, from under. (P. zer.)

*sher-phalavá*, from the underside.

*sher-gwáth*, leeward.

*sher-tharagh*, to be crushed beneath.

شیزرک *shezirk*, a low furze-like shrub, (*Uragana* sp.)

شیف *shéf*, slope. P. *shíb*, *nishíb*.

*áf-shéf*, watershed, slope of a drainage basin.

شیفغ *shéfagh*, pin or rod for applying collyrium to the eyes.

## غ Gh.

غرق *gharragh*, to snore.

غریب *gharíb*, poor, inoffensive. A.

غلت *ghalat*, mistake, false statement. A.

غلام *ghulám*, a slave. A.

غم *gham*, grief, sorrow. A.

غمناک *ghamnák*, sorrowful. A. P.

غمی *ghamí*, mourning. A.

## ف F.

فال *fál*, an omen. Ar.

فایده *fáida*, advantage, profit. P.

فرشتغ *firishtagh*, angel. See *phirishtagh*. P.

فرق *fark*, difference. Ar.

فصل *fasl*, harvest. Ar.

فلاسي falási, carpet, Ar.

فلازه fulána, certain, such a one. Ar.

## ك K.

كابل kábil, able. A.

كاتر kátar, dagger.

كار kár, work, business. P.

كارچ kárch, }  
كارچه kárcha, } knife. P. kárad.

كاري kárí, basket. See khárí.

كاربر kárez, underground aqueduct.

كاربگر kárigar, ox.

كازي kází, the Qází. A.

كاسه kása, a measure of corn, one-sixth of a harwár. Contains  
about 6 sers, 9 chitáks Indian weight.

كاشد káshid, messenger. A.

كاغذ kághadh, letter. P.

كافر káfir, unbeliever. A.

كاك kák, Baloch bread baked round a heated stone.

كالرا kálrá, flea. Si. kářiřo.

كامباني kámbání, sling.

كان kán, mine. P.

كانديري kánderi, thistle. Si. kánderi.

كانوني kánwní, cormorant.

كاوش káosh, the month of Ásoj.

كاهي káhí, ditch. See kháhí.

كابر kabr, tomb. A.

كبول kabúl, acceptance, agreement. A.

كبده kubba, a domed building.

كپتغ kaptagh, v. to attack.

كپتغ كپتغ kapainagh, to expend.

- كت kut, blunt.  
 كت kut, lap.  
 كٲاكنافغ kutákhanaġh, to adopt.  
 كٲار katár, string of camels. A.  
 كٲب kutb, the North Pole.  
     kutb-astár, the polestar.  
 كٲوي katre, a little while. A. qadr.  
 كٲغ kuttigġh, thorn.  
 كٲنوخ kuttanokġh, thorny bushes. Two or three species of *Cars-gana*.  
 كٲه kath, spinning. Si.  
 كٲهان kithán, which? what?  
 كٲئي kuttí, death.  
 كٲرغ kuṭragġh, to gnaw.  
 كٲغ kaṭagġh, to dig, conquer, overcome.  
 كٲغ kuṭagġh, to thrash. Si. kuṭanu.  
 كٲكار kaṭakar, sand-grouse. Si. kaṭangar.  
 كٲهان kithán. See kithán.  
 كٲجغ kajagġh, v., p.p. kajaġha, to cover. Si. kajanu.  
 كٲجل kajal, coarse flood grass.  
 كٲچ كٲنغ kach-khanagġh, to measure. Si. kachh.  
 كٲچنوي kuchtoe, a plant.  
 كٲچهرري kachehrí, an assembly, darbar. H.  
 كٲدال kudál, a mattock. Si. kuḍari.  
 كٲده kadah, a cup. P.  
 كٲدام kudhám, s. nest.  
 كٲدين kadhen, when?  
 كٲر kur, a stable, Si. kuṛhi.  
 كٲرا karrá, ring, link of a chain. S. kaṛo.  
 كٲرباس karpás, cotton. Skr. karpása.  
 كٲراكٲ karákuṭ, noise, rattling, clashing.  
 كٲرتا kurtá, long coat. Si. kurto.  
 كٲرتي kurtí, short coat. Si. kurtí.

- کرغ *karthagh*, mongrel, of mixed breed.  
 کرشک *kirishk*, a slip, stumble.  
 کرشکنغ *kirishkagh*, to slip, stumble. Si. khiskanu.  
 کرکاوغ *karkávagh*, a thorny plant.  
 کرکڼي *karkaní*, a kind of grass.  
 کرم *kirm*, insect, worm. P.  
 کرمساکه *karmsákh*, blackguard, a term of abuse.  
 کرولبي *karvelí*, the caper bush. (*Capparis spinosa*.) Si. kalavári.

See *godhán-din*.

- کري *karri*, an earring. Si.  
 کري *kirri*, a Baloch hut. Si. Pashto.  
 کريه *kireh*, hire, wages. P. kiráya.  
 کړ *kiṛ*, ashes. Si. kiri.  
 کزغ *kizagh*, p.p. kishtha, to leave.  
 کس *kas*, any, any one. P. kas.  
     *kase*, some one.  
     *har-kas*, every one.

- کس *kus*, vulva.  
 کساین *kisáin*,  
 کسان *kisán*, } little, small. P. kih, kihtar.  
 کسانک *kisának*, very small.  
 کسه *kissa*, story. A.  
 کشک *kashk*, kaurí.  
 کشک *kshik*, dog (m.)  
 کشکول *kashkol*, faqír's begging dish.  
 کل *kil*, a wart.  
 کل *kull*, all, the whole. A.  
     *kullá-phajyá*, altogether.  
 کل *kal*, knowledge, skill. Si.  
 کلات *kilát*. (Ar. قلعة), a fort.  
 کلاي *kalái*, tin. P.  
 کلتری *kaltrí*, a saw.  
 کلدار *kaldár*, of European manufacture, as a gun, a rupee.

- كلشك kulishk, a kind of grass.  
 كلغ kullagh, to cough. See khullagh.  
 كلف kulaf, lock. P. kulf.  
 كلو kulo, a small earthen pot. See khulo.  
 كله kulla, cap.  
 كله kulla, a warning.  
 كم kam, little, few. P. (Also kham.)  
 كم بخت kambakht, unlucky. P.  
 كنب kumb, tank, pool, rock hollow containing water.  
 كمبر kamar, variegated, stained. See khambar-kambar kha-  
 nagh, to write.  
 كمبغ kumbigh, s. mushroom. S. khumbí.  
 كمیده kamína, mean, low. P.  
 كنت kunt, blunt.  
 كنتغ kuntagh, thorn.  
 كنجري kanjarí, prostitute. Si.  
 كنجی kunjí, key. Si.  
 كنجته kunchitha, a plant.  
 كنجیت kunchith, sesamum. See kwenchigh. P. kunjid.  
 کند kund, near. See khund.  
 کندغ kandagh, a mountain pass. See khandagh.  
 کندی kandi, necklace.  
 کندی kundí, a hook. Si.  
 کندغ kindagh, p.p. kindatha, to spread out. Si. khiñdanu.  
 کندر kunar, the ber-tree, jujube-tree. P.  
 dig-kunar, *Zizyphus jujuba*.  
 khokar-kunar, *Z. nummularia*.  
 tholagh-kunar, *Z. oxyphylla*.  
 کنی kany, a virgin. Si. kanyá.  
 کوات kawát, a young male camel up to 3 years. Si.  
 کوان kawán, bow. Share of spoil taken in a raid. P. kamán.  
 کوانتغ kwántagh, to stoop.  
 کوتله kotila, young camel from 6 months to 1 year old.

- کوچ kúch, s. pommel of saddle.  
 کودی kodí, metal cup for drinking.  
 کودال kođál, mattock. See kuđál.  
 کور kor. See khor.  
 کور kaur, the phaláhi-tree (*Acacia modesta*).  
 کورو koro, whip. H. korí.  
 کورکی korkí, trap, snare. Si.  
 کوش kaush, Baloch shoes. P. kafsh. Pashto, kośha.  
 کوب kavg, the chakor. P. kabk.  
 کولمیر kolmír, an aromatic plant; (*Grantea*, sp.) Si.  
 کونتر kontar, a bush. (*Grewia*, sp. ?).  
 کونتر kontar, a pigeon. P. kabútar.  
 کونر konar, the fruit of the dwarf palm (*Ohamærops ritohs-  
eana*).  
 کوه koh, mountain; stone. P.  
     koh-gurágh, raven.  
 کوهی kohí, the female márkhor.  
 کونچینگ kwenchigh, }  
 کونچینگ kunchigh, } til (*Sesamum indicum*). P. kunjid.  
 کہا kahá, cause, reason.  
 کہادی kháđí, chin. Si.  
 کہاری khárí, a basket. Si.  
 کہاریغر khárig̃har, an ox.  
 کہال khál, a species of salsola. Also the sajjí or barilla manu  
     factured from it.  
 کہابی kháhí, a ditch. Si.  
 کہپتغ khaptagh, to attack.  
 کہتری khatri, a washerman. Si.  
 کہت khat, }  
 کہترہ khatra, } bedstead, charpoy. Si.  
     khat-phádhagh, the four stars forming the body  
     of Ursa Major.  
 کہجی khají, the date palm (*Phœnix dactylifera*). Si.

- كهډه khaḍ, hole, pit. Si.  
 كهر khar, ass (f.). P. *khar*.  
 كاهر kahar, auger, curse. Ar.  
 كهر k̄har, deaf. P. kar.  
 كهرپهز kharp haz, a mattock.  
 كهرډ khard, separate.  
     khard-biagh, to be separated.  
 كهرډغ khurdagh, to be scattered.  
 كهرډي kharde, some. (Cf. A. P. qadre).  
 كهرغ khuragh, a colt.  
 كهرغا kharghá, above.  
 كهرگ kharag, the ák-bush, (*Oalatropis procera*).  
 كهرگز khargaz, the vulture. Pashto, gargas.  
 كهرگوشك khargoshk, the hare. P. *khargosh*.  
 كهر و بښغ kharo-biagh, to stand up. Si. B.  
 كهرې khurí, heel, hoof. Si. khurí.  
 كهر khur, stable.  
 كهرس khas. See kas. P.  
 كهرشالا khishálá, difficulty, trouble.  
 كهرشار khishár, cultivation, crops.  
 كهرشار khushár, slaughter.  
 كهرشغ khashagh, v., p.p. khashtha, to draw, turn out, discharge,  
     blow (of the wind). P. kashtan.  
     phost-khashagh, to flay.  
     phor-khashagh, to smoke a pipe.  
     hon-khashagh, to bleed, tr.  
     líkh-khashagh, to draw a line.  
     gwáth-khashaghen, the wind is blowing.  
 كهرشغ khishagh, v., p.p. khishtha, to cultivate. P. khishtan.  
 كهرشغ khushagh, v., p.p. khushtha, to kill. P. kushtan.  
 كهرشغ khafagh, v., p.p. khaptha, to fall, lie down. To begin (quali-  
     fying another verb in the gerund).  
     khanaghá khafagh, to begin to do.



er-khafagh, to descend, come down, alight.

dar-khafagh, to come out, issue.

daryá dar-khaptha, the river has risen in flood.

کهکهر khakhar, wasp. (Sindhi. See gwamz).

khakhar-mánáro, wasp's nest.

کهیل khil, peg or axle on which a millstone revolves.

کهکھ khullagh, to cough.

کهکھر khalgar, stony ground; large stones.

کهلو khulo, an earthen pot or *loṭa*.

کهلی khali, a small water skin (kid's skin) carried on journeys.

(Si. khalirí, skin).

کهلیزر khaler, the *Capparis aphylla*.

کهلیرو khalero, wild asparagus.

کهم kham, little, less. P. kam.

کهمب khumb, pool in a stream. See kumb.

کهمبر khambar, variegated, striped, spotted, piebald, stained, (of animals).

کهناره khanáwa, a sword, (poet.). Si. khano.

کهند khund, adv. near. S. A piece of ground enclosed by a bend in a torrent bed.

کهندغ khandagh, s. a pass over a crest or ridge.

کهندغ khandagh, v., p.p. khanditha, to laugh. P. khandídan.

کهنغ khanagh, v., p.p. khutha, to do. P. kardan, kun. To be able, can (qualifying a preceding verb in the past participle); e. g., khutha khanán, I can do.

er-khanagh, to lay down, place.

el-khanagh, to imprison.

áwár-khanagh, to mix.

bahr-khanagh, to divide.

phol-khanagh, to ask, enquire.

phur-khanagh, to fill.

jalo-khanagh, to attack.

kach-khanagh, to measure.

gur-khanagh, to run away.

much-khanagh, to collect.

كهنځ kahnagh, old clothes, rags.

كهنوخ khanokh. Verbal noun from khanagh, doer.

كهنه kahna and kuhna, old. P.

كهنې kahne, s. pigeon.

كهنې kuhne, s. hip.

كهوېر khopar, skull. Si. kopiri.

كهوېرا khoprá. The *Withania coagulans* used for curdling milk.

كهوخر khokhar, a kind of wild turnips (*Brassica*, sp.)

كهودغ khúdagh, a tripod for cooking.

كهور khaur, a large hill torrent. (Cf. Pashto khwar.)

كهور khor, blind. P.

كهورې khori, pursuit.

كھوسا khosá, fever. Panj.

كھونځ khofagh, shoulder.

khofagh juzainagh, to shrug the shoulders.

كھونځا khofaghá, the shoulder muscles.

كھولو khaulú, a fawn.

كھونتر khontar, a bush, (*Oarissa diffusa*).

كھونجر khawinjar, a partridge.

كھونډ khonḍ, the knee.

khonḍ bhorainagh, to kneel.

كھېي khaí, } who ?

كھېيغين khaíghen, } whose ?

كھېر khair, ox.

كھېر kabír, the kanda or jhand tree, *Prosopis spicigera*. See

also Sol.

كھېر kher, the penis. P. kír.

كھېزان khaizán, perhaps, may be.

كھېسغ khísagh, pouch, pocket. P. kísa.

كھېن khín, the anus.

khíná-phur-biokh, a breechloader.

- كهيندر khíndar, naked.  
 كهينو khenú, a ball. Si. kheno.  
 كيتاغ kitagh, a water-melon.  
 كيغو kaigho, itch, mange. Si. kháji.  
 كيلار kilár, unripe fruit of *Chamærops ritchiana*.  
 كينگ kínag, envy, grudge. P. kína.  
 كيوا kíwá, in exchange.

## ك G.

- گادي gádí, pad, cushion. Si.  
 گار gár, lost, destroyed.  
     gár-bíagh, to be lost.  
     gár-khanagh, to lose, make away with.  
 گار gár. See gál, speech. Si.  
 گارا gárá, quarrel.  
 گاغ gágh, v., p.p gátha, coire.  
 گال gál, speech. Si. gálhu.  
 گالور gálwar, conversation, matter of discourse.  
 گالي gálí, a visit.  
 گالي گالي gálí, bedding.  
 گام گام gám, a pace.  
     gámá juzagh, to walk (of a horse).  
 گپ gap, quicksand, quagmire. Si.  
 گپهل gaphall, a piece, bit. Si. gapalu.  
 گتني guttaní, retreating.  
 گنه گنه githá, cheek.  
 گت gat, chasm, precipice.  
 گتغ guttigh, the kidney.  
 گتور gatúr. See ghatúr.  
 گته گته guth, the throat.  
 گتبي گتبي guthí, bridle.  
 گتبي گتبي gattí, wooden handcuffs. Si.  
 گچ گچ gaj, a wooden arrow.

- گچ guch, the colocynth gourd, bitter apple. *Cucumis Colocyn-*  
 گدکبه gadikh, kernel. [his.  
 گدوبار gadobar, maize.  
 گدی gudí, a toy-kite.  
 گد gad, female uriál. (See guránd). (Cf. Pashto, gad ram).  
 گدا guḍá, then, again, and.  
 گدغ gudagh, to chop, to kill animals, to butcher. Si. guḍanu.  
 گدی gadi, the middle finger.  
 گد gudh, cloth.  
 گر gar, a pimple, boil.  
 گر gur, s. kaurí.  
 گر gur, running.  
 گرکهنغ gur-khanagh, to run away. Cf. Pehl. giríkt, fled.  
 گزرا garrá, piebald, skewbald (of a horse).  
 گرداغ grádhagh, v., p.p. grásthá, to boil.  
 گرانه girárth, a span (with the thumb and 3rd finger).  
 گراغ gurágh, crow.  
 koh-gurágh, raven.  
 گران girán, heavy, dear. P.  
 گرانده guránd, a ram. The male uriál. (*Ovis cycloceros*).  
 گرانی girání, weight, dearth. P.  
 گرانز gránz, nostril.  
 گربرا gurburá, in a whisper. Si. gurburí.  
 گرپهغ gurphugh, small-pox.  
 گرپهیل garphíl, a whirling cloud of dust or "devil."  
 گرچغ girjagh, to catch, seize, p.p. girjítá.  
 گردغ gardagh, v., p.p. garthá, to return. P. gardídan.  
 گردن gardan, neck. P.  
 گردینغ gardainagh. Causal of gardagh.  
 گردغ gradhagh, v., p.p. grasthá, to cook.  
 گورغ giragh, v., p.p. giptá, imp. gir. P. giriftan, gir, to take,  
 accept, seize, lay hold of.  
 bál-giragh, to fly.

bo-giragh, to smell.

hál-giragh, to hear news.

zahr-giragh, to be angry.

sar-giragh, to set out.

گرف garragh, to roar or bellow.

گورگ gurkagh, to growl. Si. guranu.

گورکھ gurkh, wolf. P. gurg.

gurkh, the Wolf, *i. e.*, the last star in the tail of

*Ursa major*. See under Guránd.

گرم garm, hot, warm. P.

گرنچ granch, a knot.

گرند garand, thunder.

گوران্দ guránd, (1) ram; (2) the male urial (*Ovis cycloceros*).

Guránd, the Ram, *i. e.*, the first star of the three forming the tail of *Ursa major*. This is supposed to be pursued by the second, the Dog, which in its turn is pursued by the last star, the Wolf.

Guránd-drih, the Milky Way (lit. the Ram's leap). This refers to the legend of the Ram brought from heaven to take the place of Ismáíl when Abraham was about to sacrifice him. The Milky Way is supposed to be the Ram's track.

گرنده garandagh, *v.*, p.p. garandathá, to thunder.

گورخ girokh, *s.* lightning.

گورخ girokh. Verbal noun from giragh, a taker, creditor.

گوره giroh, *s.* fife, pipe.

گوري garí, speech, song.

گري garí, bald.

گري garí, piebald, skewbald (of a mare).

گريخ giregh, *v.*, p.p. girenthá, to weep. P. girgán.

گريه gríh, voice, sound.

zor-gríhá, in a loud voice.

- گڑ gar, a precipice, sudden descent, chasm. Pashto, garang.  
 گز gaz, tamarisk. Especially *Tamarix gallica*.  
     gíth-gaz, *Tamarix articulata*. P.  
 گز gaz, a yard.  
 گزر guzar, makeshift.  
 گزران guzrán, maintenance.  
 گزین gazaren, ought, is necessary.  
 گزغ guzagh, v., p.p. gwastha, to pass. P. guzishtan.  
     guzagh-ravagh, to pass by.  
 گزیر gazír, miser.  
 گسر gisar, mistake, forgetting. Si. bisiranu.  
     gisar-biagh, to forget.  
 گسور gasúr, s. anger.  
 کشت gasht, coarse long grass on the hill side, not eaten by  
     cattle.  
 كشغ gushagh, v., p.p. gushtha and gwashtha, to speak, say, tell,  
     sing, recite. (Skr. vach).  
 كشوخ gushokh, singer, reciter.  
 كشیدغ gishainagh, v., p.p. gishaintha, to choose. P. gizídan.  
 گغ gugh, owl. P. buh.  
 گفتار guftár, speech, song. P.  
 كفغ gufagh. See گونغ gwafagh, to weave.  
 گل gal, cheek. Si. galu.  
 گل gal, a number, quantity. Used in composition to form  
     nouns of quantity as jan-gal, a band of women.  
 گل gil, clay, earth. P.  
 گل gul, a flower. P.  
 گلآغ galágh, p.p. galáitha, to praise.  
 گلآلهه galálakh, long curls worn by Balochia.  
 گلپهان galphán, a groom, syce.  
 گلذه galat̄ha, rotten. Hindi, galá.  
 گلر gullar, dog's pups. Si. guliru.  
 گلغ galagh, a band of mares, or of horsemen.

## galagh-tháshí, horse-racing.

- گالگول gulgul, water with which the mouth is rinsed after eating.
- گالو galo, door.
- گاله galla, a káfila, caravan. Si.
- گالي galí, a street. Si.
- گاليم galím, a rug or blanket. P.
- گناس gunás, (rare) } fault, sin. P. gunáh.
- گناه gunáh, (common) }
- گنج gunj, crease, wrinkle. Si. gunyu. Pashto gunjah.
- گنجي ganji, a measure of corn.
- گند gand, s. a branch water-course.
- گند gand, s. filth, manure. P.
- گند gand-bo, stink.
- گند gund, testicles.
- گندي gundí, an entire horse.
- گنداخو gandákho, Indian rue (*Peganum harmala*).
- گندرف gandraf, sulphur. Si.
- گندغ gandagh, bad.
- گندغ gandagh, v., p.p. gandatha, to join.
- گندغ gindagh, v., p.p. دینه dítha, imp. gind, to see. P. bín, dídan.
- گندل gandal, s. felt, namda.
- گندیل gandíl, a short fodder grass in the lower Sulaimáns and plains. Si.
- گنديم gandím, wheat. (P. gandum.)
- گند gand, Adam's apple.
- گنوخ ganno<sup>kh</sup>, fool, idiot.
- اسولأ-گنوخ asulá-ganno<sup>kh</sup>, a born idiot.
- گو go, prep. with. P. bá.
- گو go, s. race, prize.
- گو-بار go-bar, a race-winner.
- گواث gwáth, air, wind. P. bád.
- گواث-ما gwáth-má, climate.

er-gwáthá, on the leaside.

gwáth-shalwar, puffed up.

گوانغ gwáthagh, a gelding.

گوانو gwátho, windy.

gwáthen hálwar khanagh, to talk big.

گوارش gwárish, rain. P. báriah.

گواز gwáz, bark of a tree.

گواش gwásh, ground at the foot of a hill.

گوافغ gwáfagh, v., p.p. gwáptha, to call together, summon.

(Cf. P. guftan.)

گواغا gwághá, immediately.

گوالغ gwálagh, packsaddle for oxen, bags.

ganda-gwálagh, (lit. spoil-bags), the small red ant. Also the name of a Baloch sub-tribe.

گواميش gwámesh, buffalo. P. gáv-mesh.

گواميش gwámish, a small plant used in washing.

گوان guwán, doubt, hesitation. P. gumán.

گوانزغ gwánzagh, a swinging cradle.

گوانكه gwánkh, voice, sound. P. báng.

gwánkh-janagh, }  
gwán'-janagh, } to call out.

گوبر go-bar, a horse that has won a race.

گوت got, bridegroom. Panj.

گوچ goj, a large lizard, "go-sámp." Si.

گوچ gwach, a buffalo-calf. Si. vachhi. Skr. vatsa.

گوخ gokh, an ox, cow. P. gáv.

گوخ gaukh, nape of the neck.

گوخراند gokhránd, dung-beetle.

گوخو gokho, a span with the thumb and forefinger. Si. gopkú.

گودر godur, a plant.

گودي godí, mistress, lady.

گود godh, menstruation.

گوزان gwadhán or godhán, udder.



*gwadhán*-din, the caper-plant. *Capparis spinosa*.

(lit. udder-tearer).

گودر *godhar*, wasp's nest.

گور *gwar*, adv. near. P. bar.

*gwará*, nearly.

گور *gor*, wild ass. P.

*gor-dil*, *Daphne mucronata* (so called from its red berries).

گور } *gor*,  
گورستان } *goristan*, } tomb.

گور *gwar*, woman's breast. P. bar.

*gwar-sar*, nipple.

*gwarán dír khanugh*, to wean.

*gwar-ambázi*, embracing.

گوراند *goránd*, a ram, male uríal.

گوربند *gwarband*, path leading round the foot of a hill.

گورپهر *gwarpahar*, flock of lambs.

گورغ *gwaragh*, v., p.p. *gwartha*, fut. 3rd pers. sing. *gwári*, to rain.  
P. *báridan*.

گورکها *gwarakh*, a lamb.

گورکها *gorkhá*, a kind of coarse grass called in Sind and the  
S. Panjáb *sin* or *sain*, good for fodder.

گورم *goram*, a herd of cattle. (P. *gáv*, *rama*.) (Si. *goramu*.)

گور *gúr*, *gur* or coarse molasses.

گوزغ *gwazagh*. See گزغ *guzagh*, to pass. P. *guzashtan*.

گوزد *gozhd*, fiesh, meat. P. *gosht*.

گوس *gwas*, enough. P. *bas*.

گوسکری *goskarí*, crystal, felspar; fossils in rock.

گوش *gosh*, ear. P.

*gosh-deagh*, to listen, attend.

گوشا *goshá*, s. the pan of a matchlock.

گوشغ *gwashagh*. See گشغ *gushagh*, to say.

گوشرا *goghrá*, s. a snore. *Goghrá janagh*, to snore.

- گوفغ gwafagh, v., p.p. gwaptha, to weave. (P. báftan.)
- گوکرد gokurd, sulphur. P.
- گوماد گومادھ gomádh, a kind of grass, the seed of which is eaten in times of scarcity, called in Sindh and the Deraját, gam. *Panicum antidotale*.  
nar-gomádh, a kind of grass with star-shaped flowers, found in the Upper Sulaimáns.
- گومز gwamz, a wasp.
- گون gon, with, together with.  
gon-deagh, to overtake.  
gon-khafagh, to meet.
- گون گون gwan or gon, the wild pistachio. *Pistacia khinjuk*.
- گوند gwand, short.
- گونداد گوندادھ gwandádh, shortness.
- گوندو gwando, an alligator.
- گوندوش گوندوش gondosh, s. a large needle.
- گونگ gúng, dumb. Si.
- گونگرو گونگرو gúngrú, turnip. See zang. Si.
- گوه goh, a large lizard. Si.
- گوهار گوهار gohár, sister. P. khwáhar.
- گوهر gwahar, cold.
- گوئل goil, s. breakfast-time.
- گهت ghat, inaccessible place, precipice.
- گهتغ گهتغ ghattagh, v. to smother.
- گهتور گهتور ghatúr, a lamb or young sheep suitable for eating. (Cf. Si. ghaṭo, ram).
- گهر guhar, adj. See گوم gwahar.
- گهريائي گهريائي ghuriái, s. a stranger.
- گهري گهري gharí, hour. Si.
- گهل ghal, a band, a raiding party, a raid. Si. ghali.
- گهن gahn, a pledge. Si. gahno.
- گهرو گهرو ghoṛo. A band of horsemen. (Si. ghoṛo, horse.)
- گيانچ گيانچ gíanch, a small bird found in sandy parts of the country, called Malála in the Deraját.

- گینرو getra, a kind of melon.  
 گیت geth, the willow, *Salix acmophylla*. P. bed.  
 گیشک gethishk, the Sinetta or Bog-myrtle. *Dodonaea viscosa*.  
 گیشگر gizh-gaz, a kind of Tamarisk. *T. articulata*.  
 گیندمهسک gidh-mabisk, house-fly.  
 گیر gir. Imp. of giragh, take.  
 گیر gir, s. memory.  
     gir-áragh, to remember.  
     girár deagh, to remind.  
 گیرا girá, dove. Si. gero. (See shátthlo)  
 گیزغ gezhagh, v., p.p. gikhta, to bring forth dead offspring.  
 گیست gíst, twenty, sai-gíst, 60, chyár-gíst, 80. P. bíst.  
 گیستمی gístumí, twentieth.  
 گیش gísh, s. a female kid.  
 گیشتر gíshhtar, a shrub, *Periploca aphylla*.  
 گیستر geshtar, many, more. P. beshtar.  
 گیشن geshin, a sieve.  
 گیکار gikár, belch.  
 گیرلر gelar, a squirrel. Hindi galeerí.  
 گین gín, life, breath.  
     do-gín, pregnant.  
 گیها gehá, great, good.  
 گیشغ gíeshagh, v., p.p. gíeshtha, to pick out, to pay.

## J L.

- لاپهر láphur, (láf-phur), pot-bellied, pregnant.  
 لاد láq, sport, play. Si. láqu.  
     ládá khanagh, to play.  
 لار lár, s. crookedness.  
 لاغ lágh, a male donkey.  
 لاغر lághar, thin, lean. P.  
 لاف láf, belly, stomach.  
     láf-band, belt.

láf-dor, bellyache.

láf-ser, bellyful.

لاڭ lákagh, to bark.

لال lál, ruby. P.

لانو lánav, lana, (*Salsola sveda*). Si. láno.

لاندو lándav, adj. fat.

لانك lánk, a waistcloth, dhoti. Si. lánġ.

لورا láwará, young of animals.

لاينغ láinagh, v., p.p. láitha, to touch, apply. Si. láinu.

لب lab, the priming of a gun. Si. labu.

lab-chataġh, to flash in the pan.

لبز labz, promise.

لبدھ labb, obtaining, getting. Si.

لنارغ latáragh, to rub off, dismiss, get rid of. Si. latáranu.

لتهه lath, stick, rod, flail. Si. laṭhi.

لتهه lath, embankment. Panj.

لتهنا laṭhná, bag for drugs.

لجم laj, shame. Si.

لچھ luch, wretch, profligate. Si. luchu.

لڊ liḍ, horse-dung. Si.

لذغ ladagh, v. to run away.

لذغ luḍagh, to move. See lodagh. Si. laṣanu.

لذغ laḍagh, p.p. laḍaṭha, to lade beasts of burden, to march, start. Si. laḍanu.

لذ ladh, jungle.

لذغ ladhagh, kick. P. laghat.

ladhagh janagh, to kick.

لر lar, a branch of a tree.

لر lar, a sword.

لرزغ larzagh, to tremble. P.

p.p. larziṭha.

لرڭ larġagh, to hang (intr.). Si. laṭkanu.

لرڭينغ larġainagh, to hang (tr.).

لاس las, all, the whole.

- لشكر *lashkar*, army. P.
- لغام *laghám*, horse's bit. P. *lagám*.
- لغذ *laghadh*, kick. See لغغ *ladhagh*.
- لغر *laghar*, *áf-laghar*, a rapid or water-fall.
- لغشغ *laghushagh*, v., p.p. *laghushtha*, to slip, slip out. (Ar. *laghz*, slip).
- لغور *laghor*, adj. wretched, mean, cowardly, poor.  
*laghoren dighár*, poor ground.  
*laghoren dadðav*, a wretched pony.
- لك *lak*, a hundred thousand. P.
- لكغ *likagh*, to hide (intr.). Si. *likanu*.
- لكوري *lakaurí*, butterfly.
- لكهغ *likhagh*, to write. Si. *likhanu*.
- لكينغ *likainagh*, to hide, conceal. (Causal of *likagh*.)
- لله *lalla*, s. lisp.  
*lalla khanagh*, to lisp.
- لما *lammá*, south. Panj.
- لمب *lamb*, a branch.
- لمبي *lambí*, s. a kind of grass, (*Cenchrus cclimatus*?)
- لنج *lanj*, blood.
- لنگ *lang*, adj. lame. P.
- لنگ *lang*, s. a torrent.
- لواشغ *lawáshagh*, v., p.p. *lawáshtha*, to drink.  
*hon-lawásh*, bloodthirsty.  
*mar-lawásh*, cannibal.
- لوپ *lop*, s. branch of a valley; a small alluvial plain in the bend of a stream.
- لوتبه *loth*, s. a bag.
- لوتغ *lotagh*, v., p.p. *lottha*, to demand, to want.
- لودغ *lodagh*, v., p.p. *lodatha*, to move, shake, (intr.). Si. *loðanu*.
- لودينغ *lodainagh*, to shake (tr.). Causal of *lodagh*.
- لور *lúr*, s. hot wind.
- لور *lawar*, s. a stick.

- لورھاف lúraháf, s. a stream which runs occasionally. Flood irrigation as distinguished from perennial stream irrigation.
- لوري lorí, s. a minstrel.
- لوغ logh, s. home, household; (met.) family, wife.  
logh-wázhák, goodman, master.  
logh-bánukh, housewife, mistress.
- لونداری laundrí, s. the temples. Si. laundirí.
- لوه loh, s. hot wind. Si. lúh.
- لوهیغ lohígh, s. a small pond.
- لہر lahar, s. a hill-torrent.
- لہم lahm, adj. timid, bashful.
- لیہف lihef, s. a blanket, quilt. P. liháf.
- لیٹاغ leṭagh, v., p.p. leṭáha, to lie, recline. Si. leṭanu.
- لیتر leṭo, s. a male camel (full-grown).
- لیکھ líkh, s. a line. Si. lík.  
líkh khashagh, to draw a line.
- لیکھغ lekhağh, v., p.p. lekhtáha, to count, reckon. Si. lekhanu.
- لیکھو lekho, s. account, reckoning. Si.
- لیلہ lílhá, a bush, *Daphne mucronata*. (See phífal, gordil).
- لیمو límú, s. lemon. A.
- لیو lev, s. play, sport. A. la'b. Pashto lobah.  
lev khanagh, to play.

## م M.

- ما má, pro. we, plural of *mas*.
- ماتون mátún, s. stepmother.
- مات máth, s. mother. P. mádar. Pehl. máđ.  
máth-phítá, parents.
- ماختہ mákhta, adv. immediately.
- مادغ mádhagh, adj. female. P. máda.
- مادن mádhin, s. mare. P. mádián.
- مار már, s. snake. P.  
syahmár, cobra.

már-val, a kind of creeper.

- مارفتا márifatá, prep. by means of. A.  
 ماري mári, a house with an upper storey. Si. márí.  
 مازات mázáth, s. a two-year-old camel. (Cf. Si. májádú.)  
 ماسي mási, s. maternal aunt. Si.  
 ماش másh, s. dál. P.  
 ماشغ máshagh, s. the hammer which holds the match of a match-lock. Si. másho.  
 ماکورا mákúrá, s. vermin. (Cf. Si. mákoṛo, black ant.)  
 مال mál, s. cattle. A.  
 مالدار máldár, cattle-owner. P.  
 مالیم málim, known, clear. A. málúm.  
 ماما mámá, maternal uncle. Si. mámo.  
 مان mán, prep. in, into.  
 مان آغ mán-ágh, to be applied, touch, reach (lagná).  
 مان دینغ man-deagh, to apply (lagáná).  
 مان رشغ mán-rashagh, to attack.  
 مان روغ mán-ravagh, to enter.  
 مان کهنغ mán-khanagh, to put in.  
 مان گزارغ mán-guzáragh, to meet together.  
 مانغ mánagh, v., p.p. mantha, to tire, become weary. P. mán-dan.  
 ماه máh, s. a month; the moon. P.  
 ماه غما máh-ghumá, eclipse of the moon.  
 ماعغ máhig, an udder.  
 ماهکن máhkán, s. the moon.  
 mahkání shaf, a moonlight night.  
 ماهلو máhlo, early in the morning.  
 ماهی máhí, fish. P.  
 متبل matbal, meaning, selfishness. (Ar. matlab.)  
 متبلی matbalí, selfish.  
 متبه math, death.  
 متبغ mathagh, v. to shake (a churn). Si. mathanu.

- ماٲ maٲ, equal. Si. maٲu.  
 ماٲتاىناٲ maٲtainaġh, v. to exchange, barter. Si. maٲaínu.  
 ماٲجال majál, power. Used as an expression of apology or re-  
 pentance. A.  
 ماٲجالس majális, society. (A. majlis.)  
 ماٲ much, assembled. (Si. muchu, a heap.)  
 maġh-khanaġh, to assemble, bring together.  
 maġh-bíagħ, to assemble, come together.  
 ماٲچها muchh, joint.  
 phádħ-muchh, ankle.  
 dast-muchh, wrist.  
 ماٲچي muchí, assembly.  
 ماٲكٲا makħta. See mákħta, immediately.  
 ماٲد mudd, season, time. (A. muddat.)  
 ماٲدرک madrik, bead.  
 ماٲدې mađí, goods and chattels. Si.  
 ماٲذخ mađħaġħ, locust. P. malaġħ.  
 ماٲذغ mađħaġħ, v., p.p. mađħa, to freeze, curdle. P: mađħan.  
 ماٲر mar, man. P. mard.  
 mar-kħushoġħ, murderer.  
 mar-kħuší, murder.  
 mar-lawásh, }  
 maġ-wár, } cannibal, man-eating.  
 ماٲراد murád, aim, object. A.  
 ماٲراي marái, gums.  
 ماٲرجان murján, pepper.  
 ماٲرد mard, man. P.  
 ماٲردان murđán, s. finger.  
 sháh-murđán, forefinger.  
 nyámagħí murđán, middle-finger.  
 ماٲردانغ murđánaġħ, the fingers.  
 phádħ-murđánaġħ, the toes.  
 ماٲردم mardum, a man, human being. P.





- مسنغ mastagh, curds. (From masta, p.p. of madhagh.)  
 مسني mustí, coarse sugar or molasses, gur. Si.  
 مسرا masará, in front.  
 مسك misk, s. musk. P. mushk.  
 مسك misk. See mahisk, fly.  
 مسيت masít, mosque. A. masjid.  
 مشادا mushádhá, s. show.  
 مشاش mishásh, eyelashes.  
 مشال mashál, torch. A.  
 مشت musht, s. fist. P.  
 مشت musht, s. hilt of a sword.  
 مشر mashar, celebrated. (A. mashhúr.)  
 مشغ mishagh, v., p.p. mishta, to suck. (Cf. Ar. mizz.)  
 مشغ mushagh, v., p.p. mushta, to rub. (Cf. A. muzz.)  
 مشك mashk, water-bag, mussuck. P.  
 مشك mushk. See múshk.  
 مكرز mikráz, scissors.  
 مكهبرنا makherná, fringe over horse's eyes. See riband. B.  
 ملامت malámat, rebuke, punishment, curse. A.  
 ملائح maláikh, angel. A.  
 ملدري malandrí, warrior. (Poet.)  
 مم mam, the black bear.  
 من man, I. P.  
 منا manná, forbidden. Ar. mana.  
 منا minná, } ease, security. (Poet.)  
 منيا minniyá, }  
 منان manán, to me, me.  
 منت minnat, entreaties, supplication. A.  
 مند mind, daughter (among the Marris).  
 مند mund, spring of water.  
 مندري mundrí, ring. Si. mundrí.  
 مندر mundo, altogether, entirely.  
 مندیل mandíl, turban, lungí.

du-mandíl, a respectable man.

منصف munsif, just. A.

منغ managh, v., p.p. manitha, to attend, mind. Si. mananu.

مني maní, my. See also maín.

مواركي mavárki, congratulations.

موتبه moth, star on the forehead of a horse.

موتبه moth, moth. (Dál). (*Phaseolus Aconitifolius*) Si.

موچي mochí, a leather worker. Si.

موخو mokho, spider.

mokho-logh, spider's web.

مور mor, ant. P.

مور بند morband, spotted.

موزغ mozhagh, a boot, legging. P. moza.

موسم mosim, season. A. mausim.

موشك múshk, rat, mouse. P. músh. Skr. múshika.

Pashto mazhak.

موشن moshin, butter.

موكل mokal, leave, permission to depart. A.

موكلينغ mokalainagh, to take leave. Old Hindí mukkalná.

مولد molid, a female slave.

مومريز momrez, spur.

مومند momand, merciful.

ماه mah, I. See man.

مهربان mihrván, friendly, kind. P. mihrbán.

مuhari, foremost, in front. Si. muháro.

مهر mahar, corpse.

ماهسك mahisk, fly. (Cf. P. magas).

benagh-mahisk, bee.

bíng-mahisk, horse-fly (lit. dog-fly).

gídih-mahisk, house-fly.

ásk-mahisk, blow-fly (lit. deer-fly).

مهل mahl, patience, leisure. A.

mahlá-dár, be patient.

- مهلت muhlat, time, while, opportunity. A.  
 مهمان mihmán, guest. P.  
 مهمانی mihmání, entertainment. P.  
 مهیرا mahairá, in welfare, all's well. Answer to the saluta-  
 biyá durr'shákhtaghei.  
 میار mayár, shame.  
 میچ mech, hint, making signs. Si. mechh.  
 dast-mechdeagh, to beckon.  
 میخمار mekhmár, mallet. Si.  
 مید midh, goat's hair or beard.  
 مید medh, a boatman.  
 میر mero, s. assembly.  
 میزغ mezagh. See mizhagh.  
 میسک mesk, a small plant, also a kind of soap made from it, used  
 in cleaning jewellery.  
 میش mesh, sheep. Especially dumbas.  
 میغی maighí, pregnant.  
 میغ mikagh, to mew.  
 میگر megar, flock of sheep.  
 میل mel, meeting. SI.  
 مینتغ menthagh, wet.  
 میفر mainar, a kind of grass.  
 مینهر mínhav, a tree. The wild horseradish tree,  
 canensis. *Moringa Con-*  
 میوار maivar, a bush, (*Grewia villosa*?).  
 میوو mevo, a chief, leader.  
 میوه meva, fruit. P.  
 میه meh, peg. P. mekh.  
 میهر mehar, flock of sheep.  
 میهی mehí, buffalo. Si.  
 مین main, my. See maní.

## ن N.

- نا ná, not, (un —, in composition).  
 نابالغ ná-báligħ, minor.  
 ناپيد ná-paid, uncommon.  
 نادراه ná-duráh, ill.  
 ناسهي ná-sahí, unknown.  
 ناكما ná-kámá, helpless, under compulsion.  
 نالايك ná-láik, unworthy.  
 ناوش ná-wash, unhappy.  
 ناچيكيين náchíken, a little.  
 ناخن nákhun, nail. P.  
 ناخو nákho, uncle (paternal).  
 ناخوزاخت nákhozákhht, cousin. (Paternal uncle's son.)  
 نارغ náragħ, v., p.p. náriħa, to groan.  
 ناز náz, s. a horn (to blow).  
 نازر náz, pleasant, pretty. P.  
 نازبو názbo, sweet scent. P.  
 نازك názuk, delicate, tender. P.  
 ناش násh, snuff. Si. nás.  
 ناتغ náfağħ, the navel. P. náf.  
 نال nál, horse shoe. A.  
 نام nám, name. P.  
     am-nám, namesake.  
 نانا náná, maternal grandfather. Si.  
 ناني nání, maternal grandmother. Si.  
 ناورش návarish, anything eaten as a relish with bread.  
 نبي nabí, prophet, A.  
 نپت napt, s. lightning. (Met.) a gun. (P. naft, naphtha.)  
 نپورغ nipúragħ, v., p.p. nipúraħa, to wring. Si. nipúranu.  
 نته nuth, s. face.  
 نخبوخ nakhinbokħ, s. bedclothes; clothes given by a host to a  
     guest.

- نَخِيف *nakhíf*, slave.  
 نَدِخ *nadhakh*, lemon-grass, (*Cymbopogon icarancusa*).  
 نَر *nar*, male. P.  
 نَر *nar*, fife, pipe. Si. *narí*.  
 نَرَم *narm*, soft. P.  
 نِرْوَار *nirwár*, justice, decision of a disputed case. Si. *nirwáru*.  
 نَرِيَان *naryán*, a horse (m.).  
 نَزْكَهَنَغ *naz-khanagh*, v. to close, bring together.  
 نَزِي *nazí*,  
 نَزِيح *nazíkh*, } near. P. *nazdík*, *nízd*.  
 نِشَار *nishár*, brother's wife; daughter-in-law. Skr. *snushá*  
     Pashto, *nzhor*.  
 نِشَان *nishán*, mark, standard. P.  
 نِشْتِيَجَنِي *nishtejani*, bedding.  
 نِشْتِيَنَغ *nishtainagh*, to spread out. Causal of *nindagh*.  
 نِشْك *nashk*, mark, sign, distinction. A. *naqsha*.  
 نِغَاه *nigháh*, sight, show. P. *nigáh*.  
 نِغُر *nughur*. See *noghar*.  
 نِغْرَة *nughra*, silver. P. *nukra*.  
 نِغْرِيَنَا *nughraená*, of silver.  
 نِغْن *naghan*, bread. P. *nán*.  
 نِغُور *nighor*, side, direction.  
 نِغُوشَغ *nighoshagh*. See *nigoshagh*.  
 نِفَا *nafá*, profit. A. *nafa'*.  
 نِفْسِخ *nafuskh*, stepdaughter.  
 نِكْرَا *nukrá*, white (of a horse). P.  
 نِكْرَغ *nikragh*, to separate, part (intr.).  
 نِكْل *nakl*, imitation, copying. A. *naql*.  
     *nakl-khanagh*, to imitate.  
 نَكِه *nakh*, } old woman.  
 نَكِهَو *nakho*, } ditto.  
 نِكَا *nigáh*, care. P.  
 نِكَا بَانِي *nigáhbáni*, carefulness.

نگوشغ *nigoshagh*, to listen, attend. Cf. Pashto, *nglwatal*.

p.p. *nigoshtha*.

نلي *nalí*, s. the forearm. Si. *narí*.

*phádĥ-nalí*, the shin.

نلي *nalí*, s. the barrel of a gun. Si.

نماش *namásh*, prayers. P. *namáz*.

نمبو *nambo*, the búí plant, *Crotalaria burhia*.

نمبي *nambí*, s. fresh feeling in the air after rain.

نمك *namak*, in *namak-harám*, traitor. P.

نمونه *namúna*, pattern. P.

نگ *nang*, honor, dignity. P.

نگار *nangár*, plough.

*nangár bahagh*, to plough.

نندغ *nindagh*, v., p.p. *nishtha*, to sit, dwell, stay.

P. *nishastan*, *nishín*. Pashto, *nástal*.

*er-nindagh*, to sit down.

نواسغ *nawásagh*, grandson, granddaughter. P. *nawása*.

نواشي *nawáshí*, to-morrow.

*nawáshí-begá*, to-morrow evening.

نوان *nawán*, perhaps.

نوترين *nautiren*, a game resembling gobang, played on a board.

نوخ *noĥĥ*, new. The new moon, the moon. P. *nau*.

نوخ *nauĥĥ*, a bride. Pashto, *náve*.

نود *nawad*, felt. P. *namda*. Pahl. *namad*.

نود *nodĥ*, rain clouds, rain.

نور *nor*, mungoose, ichneumon. S. *noru*.

نورا *núrá*, silver.

نور *navz*, pulse. A. *nafs*.

نوزد *núzd*, } nineteen. P.

نوزده *núzdah*, }

نوغر *nogĥar*, } skirt of the hills.

or }  
نغر *nugĥur*, }

- فوك nok, beak of a bird. P.  
 نوكر naukar, servant. P.  
 نوكرې naukarí, service. P.  
 نه nah, no, not. P.  
 نه nuh, nine. P.  
 نهر nahar, canal. A.  
 نهرم nuhram, ugly.  
 نهمت nahmat, intention. A.  
 نهمي nuhmí, ninth.  
 ني ní, } now. Pázand nuu. Pashto nan.  
 نين nin, }  
 نياذغ nyádhagh, v., p.p. nyástha., to post, establish, appoint.  
 P. nihádan.  
 نيام nyám, middle. P. miyán.  
 nyámá, in the middle.  
 نيامجي nyámjí, one who goes between, arbitrator.  
 نيامغ nyámagh, middling, in the middle.  
 نيانوان nyánwán, in the middle, in (from nyámá).  
 نيت niyat, object, desire. A.  
 نيخ nekh, good. P. nek.  
 nekhen du'á, prayer.  
 نيرموش nermosh, noon (for nem-rosh). P. nem-roz.  
 نير níř, s. roast meat.  
 نيزغ nezagh, spear. P. neza.  
 نيستا nestá, } was not.  
 نيستنه nestah, }  
 نيستين nesten, is not.  
 نيستكار nestkár, poor, destitute. P.  
 نيش nesh, tooth. (Si. Pashto, neśh, tusk.)  
 نيغار neghár, in the direction of. See nemgha.  
 نيكاه nékah, marriage ceremony. A. nikáh.  
 نيلاغ nilagh, blue.  
 نيم nem, half. P.



nem-ráh, halfway.

nem-shaf, midnight.

نيمغ nemagh, butter.

نيمغا nemghá, in the direction of, towards.

نيمون nimon, lemon. A.

نين nen, no, not.

نينه nína, modern, belonging to the present time.

nína-vakhat, now-a-days. See ní.

## و W. V.

واجبا wájá, } like, resembling.  
واجبه wájh, }

وار wár. (In composition) eater. P. *ktor*.

mar-wár, man-eater.

shír-wár, suckling.

وارس wáris, heir. A. wáritá.

واژا wázhá, lord, master, sir. P. *khwaja*.

dighár-wázhá, landlord.

logh-wázhá, goodman.

واگو wágú, a large lizard, alligator. (S. vághú, alligator.)

واگي wági, that very one. S.

وام wám, debt.

وامدار wámdár, debtor.

وانج واپرا wánij-vápará, give and take, buying and selling (uncommon.) Si.

واندا wándá, leisure. Si. wándo.

وانغ wánagh, v., p.p. wántha, to read. P. *khwándan*.

واهو wáhú, outcry, the alarm.

وباه wabáh, cholera. (Ar. wabá, pestilence.)

وېسغ wapsagh, v., p.p. waptha, to sleep. P. *khuftan*, *khusp*.

وت wəṭ, wick. Si. vaṭi.

وتا waṭṭá, stone. Panj.

وتھي vitthí, space, interval. Si. vithí.

- وٲ *wat̄h*, self, oneself. P. *k̄ud*. Skr. *swad-íya*.  
 وٲني *wat̄hi*, one's own, own.  
 وٲخت *vakht* time. Ar. *waqt*.  
 وٲد *wad̄*, increase.  
 وٲد اٲنغ *vađáinagh*, to increase. Panj. *vađáwan*.  
 وٲد ري *vađrí*, leather strap. Si. *vađhí*.  
 وٲد ري *vađrí*, bribery. Si. *vađhí*.  
 وٲد *wad̄k*. See وٲ *wat̄h*, self. P. *k̄ud*.  
 وٲدي *wadhí*, birth.  
                     *wadhí k̄hanagh*, to foal.  
 وٲبريا *warbariyá*, excellently, stoutly.  
 وٲد *ward*, food.  
 وٲرغ *waragh*, v., p.p. *wártha*, imp. *bawar*, to eat, drink.  
                     P. *k̄hurdan*. Skr. *hvar*.  
 وٲرنا *warná*, youth, young man. P. *barná*.  
 وٲر *warú*, beam. Si. *waro*, rafter.  
 وٲرينغ *warainagh*, causal of *waragh*, to feed.  
 وٲس *was*, strength. Si. *wasu*.  
                     *be-was*, helpless.  
 وٲسر *wasar*, wild onion. See *whasar*.  
 وٲستاد *wastád*, master of a subject, skilful. P. *ustád*.  
 وٲسزاخت *wasarzákht*, brother-in-law. Cf. P. *k̄husar*, *záda*.  
 وٲسرك *wasarik*, father-in-law. P. *k̄husar*.  
 وٲسريا *wasariyá*, in front, foremost.  
 وٲسم *wasam*, inhabited. Si. *wasanw*.  
 وٲسي *wasí*, mother-in-law. P. *k̄husú* Skr. *çvaçrú*.  
 وٲش *wash*, sweet, happy. P. *k̄hush*. Skr. *swádu*.  
 وٲشكي *washkí*, male of any beast of chase.  
 وٲشي *washí*, sweetmeats.  
 وٲكيل *vakíl*, agent. A.  
 وٲل *val*, }  
 وٲلان *valán*, } creaper. Si. *vali*.  
 وٲني *vanní*, bride. Si.

- وني vanní, name of a plant.  
 ونيج vanijagh, v. to yield up.  
 ونيينغ vinyainagh, v. to spoil. Si' vinyáinu. •  
 وهان whádāh or wahádāh, salt.  
 وهار whár, dirty, foul. P. k̄hor.  
 هان whán, tray, dish. P. k̄hwan.  
 وهاو wháv, sleep. P. k̄hwáb. Z. qafna.  
 وهون whard, food. P.  
 وهسر whasar, the wild onion, *Allium rubellium*. A.  
 ورس ves, clothing. Si. vesu.  
 وريلا velá, time. Si. velo.  
 وريهي vehí, street. Panj.

### ۛ H.

- هاجي hájí, pilgrim. A. حاجي.  
 هانخ hák̄h, earth, clay. P. k̄hák.  
 هادير hád̄hír, heart. Ar. k̄hátir.  
 هارغ háragh, dates. P. k̄hárik.  
 هازر házir, present, Ar. حاضر.  
 هاش hásh, double tooth. (Cf. Pashto ghásh).  
 هانغا hághá, awake.  
 هال hál, circumstances, new. A. حال.  
 hálá dai! give the news!  
 هالور hálwar, conversation.  
 هامغ hámagh, raw, unripe, uncooked. P. k̄hám.  
 هان hán, khán, chief. P. k̄hán.  
 هباسي habásí, (عباسي 'abbásí), an eight-anna piece.  
 هبر habar, discussion, conversation. P. k̄habar.  
 هبكنغ habkagh, v. to stutter. Si. habak.  
 هپت hapt, seven. P. haft.  
 هپنغ haptagh, a week. P. haftá.

- هپتمی haptumí, seventh. P.  
 هتر hatar, danger, apprehension. Ar. *khaṭar*.  
 هت haṭ, shop. Si. *haṭu*.  
 هت haṭh, the wild olive, *Olea cuspidata*. P. zaitún.  
 هح huch, horse's hough. Si. khuch.  
 هچپر hachho, thus, so. P.  
 هچپی hachí, any. Often contracted to 'chí. P. hech.  
 هدیرغ hadíragh, to chop up.  
 هد haḍ, bone. Si. haḍu. Pashto, haḍ.  
 هدکی hiḍkí, hiccough. Si. hiḍikí. Pashto haṭkaí.  
 هدا hudhá, } God. P. *khudá*.  
 هداي hudháí, }  
 هدین hadhen, then.  
 هر hir, a young male camel up to six months.  
 هر har, every, each. P.  
 har-do, both.  
 har-rangá, of every kind.  
 har-ro, daily, always.  
 har-sál, every year.  
 har-kas, every one.  
 har-ki, every thing that—, each.  
 har-vakhtá, } always.  
 har-velá, }  
 har-handá, everywhere.  
 هر hur, adv. apart.  
 hur-janagh, to drag apart.  
 هرپ harb, jawbone.  
 هرتال hartál, arsenic. (Si. hartálu, yellow orpiment.)  
 هرتیل hartel, large saddle bags.  
 هرچین hurjín, saddle bags. P. *khurjí*.  
 هرديک hirdik, squirrel.  
 هردهات hardhát, metal. Skr. dhátu.  
 هرس hers, avarice. A.

- هرش harsh, } a cubit.  
 هرشه harsha, }  
 هرغ harragh, s. an infirm person.  
 هرع harragh, s. a saw.  
 هرّف harf, letter. Ar.  
 هرمزادە harmzáda, bastard, scoundrel. A. P.  
 هرزولي harnolí, dhatura.  
 هروار harwár, a measure of corn containing nearly 10 maunds  
 Indian weight. P. *kharwár*.  
 هرري harri, } mad (of dogs).  
 هرريا harriyá, }  
 هرژده hazbdah, eighteen. P.  
 هرژگر hizgar, anywhere.  
 هس has, an ornament, a "hassí" or silver necklace. Si. hasu.  
 هستل hastal, mule.  
 هشت hasht, eight. P.  
 هشتەر hushtur, camel, (the generic term). P. shutur.  
 Skr. ushtra. Brahui hueh. Zend. ustra. Pashto úsh.  
 هشتهمي hashtumí, eighth.  
 هشح hushagh, p.p. hushtha, to dry (intr.).  
 هشك hushk, dry. P. *kushk*. Skr. çushká. Z. huska.  
 hushken ðoð, skeleton.  
 هشكي hishkí, scarlet.  
 هك hak, rights.  
 هكل bakal, drawing.  
 هكلغ hakalagh, v., p.p. hakalatgha, to drive, to urge on.  
 هكم hukm, (A. hukm), order.  
 هل hal, melting; hal biagh, to melt, thaw.  
 هل hil, a kite. Si.  
 هلاس hulás, free. P. *kulás*.  
 هلك halk, village, collection of huts. (Cf. Ar. *kalk*, *kalkat*.)  
 هليد haleðh, spices.  
 هليدي halení, adv. undoubtedly.  
 همباجه hambácha, ammunition pouch. Si. hambácho.

همبار hambár, a collection of corn, and enclosure round it.

P. ambár.

هموذا hamodhá, there, in that very place.

هميدا hamedhá, here, in this very place.

هميش hamesh, this very one.

hameshiya phar, on this account.

هن han, neighing, whinnying.

han-khanagh, to neigh, whinny.

هنجری hinjri, the shoulder-blade. See bardast. Si. hanjhi.

هنجیر hinjir, fig. (P. anjir.)

هنچهو hanchho, thus, so. P.

هند hand, s. place, dwelling. (P. khána.) (Si. handhu.)

handá, in place, instead.

thí-handá, elsewhere.

har-handá, everywhere.

hech-handá, anywhere.

hech-handá nen, nowhere.

handiyá, somewhere.

ya-handá, in one place, together.

ás-hand, fire-place.

zahn-hand, scar of a sword-wound.

هند hind, bitch.

هندي hindí, weapon.

هندينغ handainagh, to be useful.

هنر hunar, skill.

هنكخ hinkagh, to neigh.

هنگر hangar, charcoal. (Cf. Sindhi angaru.)

هنكلو hingalo, variegated. (Si. hingulú vermilion.)

هو hau, yes.

هوان hawán, that. (P. ham-án.)

هوانكر hawánkar, as much as that.

هوانگو hawángo, thither.

هوت hot, hero, warrior.

- هود *haud*, tank. Ar.  
 هوداه *havdah*, seventeen. P.  
 هوداه دار *hodadár*, official (for P. *uhdadár*).  
 هود *hođ*, hole, cave, den.  
 هور *hur*, rain. Si. *horu*.  
 هور }  
 هورگ } *horg*, } empty.  
 هورگین } *horgín*, }  
 هورجین *horjín*. See *hurjín*. Saddle bags.  
 هوش *hosh*, sense. P.  
 هوشغ *hoshagh*, s. an ear of corn. (P. *khosha*).  
 هوشيار *hoshyár*, skilful. P.  
 هوف *hauf*, leprosy ; a severe illness, violent fever.  
 هول }  
 هول پوش } *hol*, } armour, accoutrements. Si.  
 هول پوش } *hol-posh*, }  
 هوم *hom*, the air-plant.  
 هون *hon*, blood. P. *khun*.  
 هوش *hawesh*, this, this one.  
 هوين *hawen*, adj. this.  
 هي *hí*. See *híd'hishk*.  
 هي *hai*, or.  
     *hai hai*, either, or. (P. *khwáh*, *khwáh*.)  
 هيا *hayá*, shame. A.  
     *be-hayá*, shameless.  
 هيت *hait*, camel's pack-saddle.  
 هيت *hít*, green corn, *khásíl*. P. *khawíd*.  
 هيج *hech*, any. P.  
 هيچي *hechí*, anything.  
     *hechí na*, }  
     *'chí na*, } nothing, none, not at all.  
 هيخ *híkh*, swine. P. *khúk*.  
 هيد *hedh*, sweat. (Skr. *svid*. P. *pa-sína*.)  
 هيد شك *híd'hishk*, the khip bush, *Orthanthera viminea*.

هیر hír, a houri. (Ar. húr.)  
 هیر hair, welfare, (Ar. k̄hair.)  
 hair khanagh, to salute.  
 ma-hairá, all's well.

هیران hírán, dish, plate.  
 هیرنه hírth, fine, thin.  
 هیزه haiza, cholera.  
 هیزخ hízhokh, a waterfall.  
 هیس hes, rust, dirt.  
 هیل híl, hope.  
 هیلاك helák, tame, subdued, accustomed. Si. heráku.  
 هیلوند hílwand, hopeful.  
 هینز hínz, a leather churn.  
 hínzár mathagh, to churn.  
 هینه hína, weak. Si. hípo.

### ي Y.

ياژده yázhdah, eleven. P.  
 ياژدومي yázhdumí, eleventh. P.  
 يتيم yatím, orphan. A.  
 يकिन yakín, certain. A.  
 يك yak, one. P.  
 yak-áptiyá, one another.  
 yake, only one.  
 yake-chyár, fourfold, } &c.  
 yake-sai, threefold, }  
 يله دېنغ yala deagh, to let loose. See الځ دېنغ ilagh deagh.  
 Pashto, yalah.  
 يمارا yamará, for ever. See jamará.  
 به ya, one. Cf. Pashto yau, yavah.  
 ya-bará, at once.  
 ya-bare, once.  
 ya-rangá, of one sort.  
 ya-handá, in one place, together.



SPECIMENS  
OF  
THE BALOCHI LANGUAGE.



I.

*The Wanderings of the Rind Balochís.*

[This poem is very widely spread, and I have met with it in almost every Baloch tribe. The versions differ very slightly. The present one, as the dedication in the last two lines shows, was recited to Jalál *Khán* a former Chief of the *Leghárís*. Another version, from a *Gurcháni Dom*, similarly brings in the name *Nihál Khán*. The poem is probably of considerable age; it is very elliptical in expression, many of the grammatical forms are antiquated, and the versification is loose and formless. It gives the legendary account of the Wanderings of the Baloches before they settled in the countries they now inhabit, distinguishes the tribes entitled to rank as *Rinds* from those not so entitled, and concludes with a catalogue of their leaders.]

Shukr Alláh hamdá guzará  
badsháh mulka wathen  
Thí jihán *khák* o gilo bí  
Heku nindo wash-dilá.  
Má aulád Mír Hamzáigh-ún  
Sob dargábá gur en  
Azh Halabá *phádá* kbáyán  
go jazízán jheroen  
Masará Míren Jalál Hán  
chhil-o-chyár bolak en  
Kalabalá Bompúr ma nyánwán  
shahr Shistán mizile  
Kháktún Hárína bandá  
Kech rásten phalawá

Makuráná Hot nindí  
     Khosagh man Kech-dehá  
 Azh Halabá Chánđiyeghá  
     Kalamthí e logh pha-guren  
 Jo mítáf bahr-khanána  
     Kul sardár Shaihak en  
 Man Naliyá Noh nindí  
     Jistkání pha-guren  
 Phuzh, Míralí, Jatói  
     Drust man Seví Dháqará  
 Dríshak Khán, Mazárí  
     E go Rindá yagsar en  
 Azh bunyádá Phuzh Rinde  
     Sar go Mír en Chákur en  
 Golo, Gopáng, Dashti  
     Rind thaliyá dar-ant  
 Thí Baloch báz bisháren  
     Drust man Rindá manahá  
 Nashk-daur pha Gorgezán  
     E man Thaliyá dehá  
 Noh korái áwáren  
     E go Rindá yagsaren  
 Rindán man Shorán nindí  
     Láshar man Gandávagh en  
 E maní perá o rand en  
     E Balocha daptar en  
 Má deún sí sál jangá  
     E Balocha shiddat en  
 Shaihak o Sháhdád dání  
     Las sardár Chákar en  
 Chhil hazár khái Mír gwánkhá  
     Thewaghán jáde-potar en  
 Hol-posh dast-kaláyá  
     Druh khawán o jábah en  
 Path pechá go khawá  
     Phádh lalen mozhagh en  
 Kárch kátar nughraená  
     Dast mundrí thangaven  
 Bakar o Gwaharám Ráména  
     Zar-zuwál Nodh bandagh en  
 Phuzhán Járo jaur-jawáv en  
     Hadden Dine brádhhar en

Phero<sup>z</sup> o Bijar Rehán  
 Mírán Rindán zahm-jan en  
 Sobhá, Míhán, Alf,  
 Jám, Sahák o Alan en  
 Haivtán Bivaragh man Rindán  
 Mír Hassan go Brahim en  
 Sháir ki sherán jorí  
 Mír Jalál Hán surphadh en.

*Translation.*

Thanks and praise to God; himself he is Lord of the land. When the rest of the word becomes dust and clay, alone He remains with serene heart.

We are the offspring of Mír Hamza; victory is in the worship of God. From Halab do we arise, there are fights with the unbelievers. Foremost is Mír Jalál *Khán*, there are four and forty tribes. By stages (we march) from Kalabalá (Karbálá?) to Bompúr and the cities of Sístán. We came to Hárún's band, on the right side of Kech. The Hots settle in Makrán, the Khosas in the land of Kech. From Halab come the Chándyas, near the home of the Kalamthís. Dividing out running water and dry land, the chief of all is Shaihak.

In Nakí the Nohs settle, close to the Jistkánís. The Phuzhes, Míralís and Jatoís, all in Seví and Dháqar. The Drishaks, Kháns and Mazáris are one with the Rinds. In origin the Phuzhes are Rinds, they were with Mír Chákar. The Golos, Gopángs and Dashtís are outside the Rind circle (dish). The other very numerous Baloches are all included in the Rinds. Distinguished for wealth among the Gorgezes are those in the country of Thalí. The Nohs and Korais are mixed together, they are one with the Rinds. The Rinds settle in Shorán, the Lasháris in Gandává. This is our foot-print and track, this is the Baloch record. For thirty years we are engaged in battle, this is the Baloch struggle.

In the time of Shaihak and Shábdád, Chákar was chief of the whole. Forty thousand come at the Mir's call, all descendants of one ancestor. All with armour upon their forearms, all with bows and quivers; with silk scarves and overcoats, and red boots on their feet; with silver knives and daggers, and golden rings on their hands. There were Bakr and Gwaharám and Rámen, and the gold-scattering *Nodhbandagh*. Of the Phuzhes was Járo, venomous in reply, and Hadde his brother by religion. There were Phero<sup>z</sup>, Bijar, Rehán, and Mírán, the swordsman of the Rinds. There were Sobhá, Míhán, Ali, Jám, Ishák and Alan; Haibat Hán and Bivaragh of the Rinds, and Mír Hassan with Bráhim.

It is the poet that composes the songs, and Mír Jalál *Khán* comprehends them.

## II.

*Poems relating to Mír Chákar.*

Mír Chákar is the great legendary hero of the Rind Baloches. He is represented as having led them into the countries they now occupy from Makrán, and as having founded a kingdom with its capital Seví (Síbí). He waged war with the Turks under Humáú Chughattá. On the civil war between the Rinds and Lasháris breaking out, the Turks under their leader Zunú joined the Rinds, and the Lasháris were defeated. The Turks seized the Lashári women, but released them on the expostulation of Chákar, who said that Baloches would be disgraced by being accomplices in such a deed. At one time Chákar was a prisoner to Humáú, who called him up and asked him "What is the best of all weapons?" Chákar replied, "Anything that a man can lay hold of in a fight." The king then had Chákar brought unarmed into a narrow street, and a savage elephant turned loose at the other end. As it rushed upon Chákar, he caught up a dog that was lying in the road, and threw it in the elephant's face with such violence that it turned and fled. Chákar is said to have founded the old fort at Síbí, which he ultimately abandoned at the end of the civil war on his way to the Panjáb. His name has been given to several places in Balochistán, among them Chákar-mári 'Chákar's upper storey,' a hill near Sangsila in the Bugtí country, from which he is said to have taken his last look back at Síbí. This is a physical impossibility, but Chákar was a 'godlike man' (Hudháí mard), and could do things which the present generation is not capable of. Another place, named after him, is Chákar Tankh 'Chákar's defile' in the Marri country.

It is difficult to say how far any part of Chákar's adventures are historical. Baloches began to arrive at Multán and the neighbourhood from Makrán in the time of Hussain Langá, towards the end of the 15th century. (Briggs' *Ferishta*, Vol. IV, p. 388.) Soon afterwards came one whose name is transliterated by Briggs Meer Jakur Zund, which should probably be Mír Chákar Rind. He obtained a jágír in Uchh from Jám Báyzid (Ib. p. 396).

This Mír Chákar is said to have come from Solypur, but I have not been able to discover this place. This was about 1520 A. D. About the same time we find Baloches in the Panjáb as far north as Bahrah and Khusháb on the Jehlam. (Erskine's *Baber*, p. 256.)

This irruption of Baloches into the Panjáb was probably caused by the pressure on them of the Turks or Mughals who were then under the Arghúns invading Kachhí and Sindh. Sháh Beg, son of Zúlmún Beg Arghún, took Síbí first in A. D. 1479 and a second time about A. D. 1511. This occupation may have been the cause of Chákar's emigration. Sháh

Beg made Síbí his capital for some time, and it is probable that he and not Chákar really built the old fort there (Erskine's Baber and Humáyún. Ed. 1854, Vol. I, pp. 342, 347, 348.) There is no record of any collision between Humáyún and the Baloches except during his flight in A. D. 1543, when he seems to have been plundered by them in the Bolán Pass. (Baber and Humáyún, Vol. II. p. 266) and again fell in with them between Kandabár and Sístán (p. 271). This is perhaps sufficient for the introduction of his name into the legends. Zunú, the Turk leader, perhaps stands for Zúlnún Beg in whose name Sháh Beg fought.

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*The Quarrel of Mír Chákar and Gwaharám.*

[This poem also seems from its language to be an old one. It describes the causes of the division between the Rinds and Lasháris, the two sections into one of which all true Baloches fall. The Rinds were under Chákar, the Lasháris under Gwaharám. Finally Chákar in disgust emigrated to the Panjáb, and settled at Satghar in the Lahore District, where he died and is said to be buried.]

Kilátí Havív gushí: Sarí Rínd Ghulám Bolak gushí: Chákar Gwaharám Karákuṭán gushí: Gohar báutíyá kharde gál gushí: phílaven sí-sál-jang gushí.

Yád khanán náme Iláhi  
 man awwal sar-návaghán  
 Haidar o phusht o phanáh  
 sar hazrate ákhir-zamán  
 Biyá lorí go sawáhá  
 zír maní guftáraghán  
 Bar gwara belán dileghá  
 no salátí brádharán.  
 Mangehá Rinda pha Bompur  
 Kech bághe Makurán  
 Mastaren loḡh Domkí en  
 man Balochi meraván  
 Rind Lashári áwará  
 trán bastha pha-wathán  
 'Biyáeth, shedhá bilaḡún  
 bilún giyáfen ulkahán  
 Jo mítáfá bi-kaṭún  
 bahr-khanún bi pha wathán.

Ráji ráná *kadh* ma lekún '  
 biyákkhán dan logh githán  
 Hukmí tonde nakhifán  
 nokh khutkantesh ádimán  
 Bozh borán báraghená  
 kotwání andará  
 Saj khane bázen biháná  
 nuh-hazári markhaván  
 Biyárún bagán girdaghená  
 azh Naliya khaur dafá  
 Gwánkh-jattha jodhán bi kádán  
 'er-khafe azh Chajua  
 Khash gálí o palangá  
 jhul suhren kamalán  
 Bauf morbanden lihéfán  
 hingaloen manjaván  
 Sikh o tásán bijoren  
 Makurání kadahán  
 Chakurí deh na nindí.  
 ro wathí díren ámilán. '  
 Phoshitka Rindán wathí díj  
 pha khawáh o shaddaván  
 Phádh lálén mozhaghán  
 Rind kásathant pha Deraván  
 Dhádar o Seví gwáftha  
 Dan Jhal o Nílahá dafá,  
 Hab, Phab, Moh, Malí  
 dan Nalí khaur dafá  
 Gáj shahra basthaghená  
 Dan Marágabo dehá  
 Sangar o khoh Sulemá  
 Gwáfthaghen sher-narán  
 Sáng Mundáhi dhaníyá  
 Dan pá bi Metíhírá  
 Bágghaen Kácho Símá  
 Dan Dhari o Bhanará  
 Nangare Bijár theghá  
 Jám Sulemána lurá.  
 Gohar háuti ki ákktha  
 gwar Nawáve Chákurá  
 'Mál maní othíya bag en  
 hande phe-dáre manán'

Chákurá dír-zánaghéná  
 gwash bi durren Gohará  
 'Barav o Során jóá  
 Kachrákí phalavá,  
 He-miuná bagá bicháren,  
 nind be-anden shafá.'  
 Rosh azh Gwaharám shahrá  
 rafthagant kharde charián  
 Báraghen borán zawárant  
 pha shikár o sailahán.  
 Hir khushthant juftaghiyá  
 phar wathí láf-serihán  
 Ráj bundáthant hazári  
 azh du-demí zíanehá  
 Kahravá thekán khawáthant  
 pha badhen kirdáraghán  
 'Shin-gurá Gwaharám theghá  
 'shán-gurá Mír Chákurá  
 Phílaven sí sál jang ath  
 Gohara hir phadhá  
 Sar galói báithaghantí  
 nesh rikthant azh dasá  
 Mára dí ekhawá dí ishtha  
 pha Hudháí ásurá  
 Guḍá Sultáne Balochá  
 sahl khutha bi pha wathán  
 Chákur azh bráthí gasúra.  
 Gwastha Satten Gharán.

*Translation.*

Kilátí son of Habíb says : to the lofty Ghulám Bolak Rinds he says : about the quarrel between Chákar and Gwaharám he says : of the refuge-taking of Gohar in few words he says : of full thirty years war he says, as follows :

First I remember the name of God, my morning-star of old ; lord, and support and protector to the most illustrious prophet.

Come minstrel at early morn, learn my sayings and carry them to the friends of my heart, and the assembly of my brethren.

The bold Rinds came to Bompúr, to Kech and fertile Makrán, the greatest family was the Domkí in the Baloch assemblies.

The Rinds and Lasháris met together, they took counsel among

themselves. "Come, let us march hence, let us leave these widespread lands. Let us conquer streams and dry lands, and deal them out among ourselves. Let us take no count of rule or ruler."

They came to their own homes. The chiefs (turban-wearers) ordered their slaves to saddle their young mares. "Loose the slender chestnut (mares) from their stalls, saddle the numerous fillies, steeds worth nine-thousand each. Let us bring in herds of camels from round about, from the mouth of the torrent of Nalí." The men called to the women "Come down from Chajú, take out your wrappings and beds, carpets and red blankets, pillows, and spotted rugs, and many-coloured bedsteads, moulded cups in abundance, and Makráni drinking vessels. Chákar will not stay in this country, he will go to his own far land."

The Rinds clothed their bodies in overcoats and turbans, with red boots on their feet. The Rinds were distinguished for hospitality.

They called together Dháqar and Seví, in Jhal and the mouth of the Nilah; Hab, Phab, Moh and Mali in the mouth of the Nalí torrent. They stayed at the city of Gáj in the land of Marágah. The tigers of men assembled Sangar and the Sulaiman mountains, the rulers of SÁNG and Mundábi became payers of tribute to our chief.

In the boundaries of fertile Kachhí, in Dhari and Bhanar. There was generous Bijar with his scimitar, and the leader Sulaimán with his sword.

Gohar came for refuge with the Nawáb Chákar, saying "Show me a place for my cattle, and herds of camels." The far-seeing Chákar said to the fair Gohar "Go to the streams of Shorau in the direction of Kachrak. There stay at ease with your herds of camels, and have no anxiety by night."

One day some madmen went forth from Gwaharám's city, they were mounted on fine chestnut (mares), for the sake of hunting and exercise.

They killed a pair of young camels (of Gohar's), to fill their bellies withal.

The chief fell into a great rage (lit. rage of a thousand), on both sides damage was done. A curse falls upon the wicked, upon the doers of evil. On this side was Gwaharám with his sword, on that side Mír Chákar. For full thirty years war continued about these young camels of Gohar's. All the excellent youths have been slain, the teeth have dropped from their mouths, and God's mercy has spared us only. Then the Baloch rulers made peace among themselves, and Chákar on account of this feud among brethren passed away to Satghar.



*Chákar's denunciation of his foes on leaving Síbi.*

Chákar Shaihak gushí: sarí Rind Bádsháh gushí: *án* rosh ki Seví  
 khilí kharde gál gushí: Gwaharámár phasave dáth gushí.

Bilán mar-lawáshen Seví  
 Gauren sadhaní margáví  
 Jáme Nindavá bhattiyá  
 Sai-roshán Baharám neghá  
 Sí-sál uvt o uzhmárá  
 Ján-jebhavan jangiyá  
 Thegh azh balgavá honená  
 Chotán cho kamándí boghán  
 Jukhtán na nashant lárená  
 Warnáyán du-mandílená.  
 Laq ma qeraván na rusthaut  
 Misk ma barútán na mushthant  
 Whard dumbaghán meshání  
 Karwáli sharáb sharr joshant  
 Sháhán pha nishán yakhe nest  
 Drustán wárhaghán hindíyán  
 Shartán dáthaghán shimenán  
 Bachaki lawar báwziyá  
 Gwaharám muzhen Gandávagh  
 Singhe ma zirih phirenta  
 Máchiya lawáshtha lanjaith  
 Alí o Walí druh-dárán  
 Yáki kiláta beronea  
 Hágh kávalí Turkánán  
 Rind báraghen boránán  
 Gwaharám azh dude hande bí  
 Ne Gor bí ne Gandávagh.

*Translation.*

Chákar son of Shaihak says: the exalted Ruler of the Rinds says: on the day he leaves Síbi these few words he says: in reply to Gwaharám he says (as follows):

I will leave man-devouring Seví, curses on my infidel foes! For three days shall the Jám Nindo from his oven (distribute bread) in honour of Bahrám (slain). For thirty years, for ever shall there be war with these gigantic men, nor shall my sword be clean from stains of blood. I will bend it like jointed sugarcane, so that through crookedness it will not go into the sheath.

The distinguished (lit. two-turbaned) youths do not rise up to sport among the houses, they rub no scent on their moustaches, but they eat fat-tailed sheep and boil strong liquor in their stills. There is not one of them with signs of a ruler about him. They have eaten all their weapons, they have gambled away their heads, they have children's sticks in their hands. Let Gwaharám stay in dusty Gandáva, a stone thrown into a well. Máchi has drunk blood; Alí and Walí are traitors. The rebels' fort has been surrounded, and reduced to earth by the tyrannous Turks and the Rinds on highbred mares (chestnuts). Gwaharám (will be expelled) from both places, (and possess) neither a grave nor Gandáva.

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### III.

#### *Dosten and Shíren.*

The legend on which the following poem is based is as follows :

During the war between Mír Chákar the Rind leader and Humáú Chughattá king of the Turks (*i. e.* the Bádsháh Humáyún), Chákar was forced to consent to give up some Rind maidens to Humáú, but actually sent instead young men in disguise. On this being discovered, they were ordered to be kept in perpetual imprisonment in the fort of Harrand. Among these prisoners was Dosten. He had been engaged to marry his cousin Shíren, who remained faithful to him during his many years' imprisonment. At last her parents said that she must no longer remain unmarried, no hope being left of Dosten's return; so they found for her another husband, also named Dosten. (This is alluded to in line 98, where she says 'Not this Dosten, but the old one.') Him she long refused to marry, but at last yielded to the pressure put on her, and arrangements were made for the ceremony. Meanwhile Dosten in prison at Harrand had succeeded in gaining the favour of the Mughal or Turk Governor of the fort, and some liberty was allowed him. His mare had died, but had first borne a fine colt which had grown up, and which Dosten was allowed to keep. One day games and races were going on, and Dosten asked and obtained leave to join in the race. Mounting his horse, he said good-bye to the Governor, turned its head towards the Cháchar Pass and went off at full speed. Several pursuers followed him, but no horse had the endurance of his chestnut. At intervals along the rocky pass they stumbled and fell, and these spots bear the horses' names to the present day. At last he was left alone, having wearied out all his pursuers, and travelled homewards. On nearing his tribe, he overtook a minstrel (*Dom* or *lorí*). He asked him the news, and where he was going. The minstrel told him of the impend-

ing marriage of Shíren, and said that he was on his way to sing at the wedding. Dosten then told his story and prevailed on the minstrel to change clothes with him. Thus disguised, he made his way into the assembly with the other minstrels, and sang the poem which follows, bringing in the substance of a message he had received in captivity from Shíren. He was immediately recognized by Shíren, who declared that she would marry him and no other, and they were happily married then and there.

In the poem Dosten first begins by saying how his mare could not live in the heat of the plains, and then passes on to say how a *Khorásán* merchant brought him down Shíren's message, which constitutes the remainder of the poem. It begins with an animated description of a Nomadic Baloch tribe in the hills moving to fresh pastures after rain, and then turns to Shíren weeping in her little hut for her lost lover. Her companions try to console her, but she will not be consoled, since he is in captivity. She then describes how when she wanders over the hills with the other Baloch women, according to their custom, she always picks a flower for her lover's sake, and ends with a prayer for his safe return home again.

Lines 40-44 seem to be an interpolation. They have no connexion with the subject matter of the poem.

- Zangí maní badero  
 Gwaharám maní jám o bel  
 Whántkár Shíhane Sháhiye  
 Saughan pha tháí risháná  
 5 Nokhí-ákhthaghen masáná  
 Síghen gor-khushen syáhárá  
 Áfa na wáarth Báh neghá  
 Kikh o Karjalán Sindeghán  
 Loṭí báhirán Dashteghán  
 10 Loṭí wadh-maháren jídhán  
 Phitokh dafá mádh-gorás  
 Dorí phur kumáren áfá  
 Sutí phurí khaiávás  
 Whává kálrá nelán  
 15 Márwáří jawán zivirenán  
 Marde azh Hurásán ákhtha  
 Leghár chádar o lumboen  
 Bár rodhanání gonakh  
 Hurjín maidhen bhangání  
 20 Sarbár Kandaháří miskant  
 Phaighám gon-athí Rindání

- Tahkíken shalám Shírene.  
 Nodhán shanz-jatha Konará  
 Dasht-o-dámana Mungáchar
- 25 Sanniya *nughor* humboen  
 Dor phurant-í amrezán  
 Larzant cho gwanáni thákhán  
 Chotant cho kawándí boghán.  
 Lađí máncasha máldarán
- 30 Meshí buzí whántkárán  
 Mezdár Sahák Yárán  
 Bumbár basthaghan bánukhán  
 Sarbár láritán gwánechán  
 Bháwanar khandagh o Nágághú
- 35 Khondán phrusthaghan zardoán  
 Lokán phashaví katárán  
 Kádán go himáren phádhán  
 Shírená jatha sráðhen kul  
 Ma Narmukh geáven rejá.
- 40 Mesh azh draniná ser khan  
 Buz azh gwárighá lál phulá  
 Rind azh maidhen gandímá  
 Pahnwál azh phaní ponchá  
 Lahri azh gwan phothákhá
- 45 Gwán' janth dilsaren dáiyá  
 Ziri kadabe meţeí  
 Ro da shakhalen nokháfa  
 Malgor shusthaghen mahlíjá  
 Randítsh mushi malgorán
- 50 Khaithí da wathí chyár-kulá  
 Kullá darriya bandí  
 Shiskant thaghard niehtent-í  
 Jhul phalavá leţení  
 Dast janth avr barziyá
- 55 Khashí *nughraen* ádená  
 Era Kamálú sar záná  
 Gindí droshamá heriyá  
 Gregħ khant humáren chhamá  
 Anzí rishant pha dramá
- 60 Jígh sar katiká mená  
 Much ban janán jedí gobár  
 Sharren somaren chhil-o-chyár  
 Biáyant o gwara er-nindant  
 Shár phalavá leţená

- 65 Phursant-í dila o hálá.  
 ‘Pharche khunalat khordema  
 Suhren man ma<sup>kh</sup> o níláná  
 Brí<sup>kh</sup> tháí bambaven danzená’  
 Greg<sup>h</sup> bí<sup>h</sup>, janán telánk dá<sup>th</sup>
- 70 ‘Dir bí<sup>h</sup>, o janán, jawán e ná  
 Dir bí<sup>h</sup>, o janán, dí<sup>r</sup> ninde  
 Bilán khunal o khor-demá  
 Subrán man ma<sup>kh</sup> o nílá bant  
 Brí<sup>kh</sup> o bambaven danzen bant
- 75 Dost shume phakár nen  
 Anmar ki jána dozváhá  
 Suhrá reá darkará  
 Dí<sup>ha</sup> harrag<sup>hen</sup> bad-duáyán  
 Turkán azh hareb gwázentha
- 80 Ma zar-joshen Arandá shahrá  
 Sunjen isp-tah’alen láfá.’  
 Dúng bant janikh Rindáni  
 Maláni phad<sup>h</sup>á shef ban.  
 Kháyant khargazí krámáná
- 85 Ne<sup>ken</sup>-niyaten gwandáná.  
 Maurán azh kurmán sindáná  
 Pha<sup>án</sup> gwárag<sup>hí</sup> lálphulán  
 Nem jamaven jig<sup>ha</sup> jant  
 Nem khunal o sar-hoshán
- 90 Nem pha sammáen khauliyá  
 Yakhe pha maní níyatá  
 Chit<sup>ho</sup> ma waz<sup>hí</sup> musht khan’  
 Ba phusht azh bad<sup>hán</sup> jaurená  
 ‘Shít<sup>h</sup> daz-gohár jediyá
- 95 Dastán pha Hud<sup>há</sup> burzáre  
 ‘Alláh ki biyár Malik Dostená  
 Sauten sammáen khauliyá  
 Eshiyá ná, hawán oliyá  
 Bor pha lammag<sup>hán</sup> sheriyán
- 100 Baro mizilán dírená  
 Biyár wáz<sup>há</sup> amírená  
 Nind-o-nyá<sup>d</sup>h phit<sup>h</sup>-o-mát<sup>h</sup>ání  
 Dí<sup>má</sup> shakhalen brát<sup>h</sup>ání  
 Rozí bá Malik Dostená
- 105 Dí<sup>dár</sup> khasha rozí bá.

*Translation.*

Zangí is my chief, Gwabarám my leader and friend, the owner of excellent mares. I swear by your beard, by the new grown hair of your face. My mare, hunter of wild asses, is sad, she will not drink water by the Indus, nor eat the reeds and karjal grass of Sind. She longs for the herds of wild asses of the Dasht, she longs for her own pleasant pastures, for the female wild asses of the Phitokh Pass, and the pools full of fresh water; the sandflies and musquitos irritate her, the vermin will not let her sleep, the Márwári barley is coarse to her.

A man came from Khorásán, his clothes and face dirty; he brought with him loads of madder, saddle-bags of fine bhang, and bales of Kandahár musk.

He had with him a message from the Rinds, a true greeting from Shíren.

The clouds have rained on Konár, on the plain and hill-skirts of Mungáchar, on the pleasant slopes of Sanná.

The pools are filled to over-flowing, (the water) trembles like the leaves of the gwan-tree (*Pistacia khinjuk*), and bends like joints of sugarcane. The graziers have given the word to march, the owners of the sheep and goats, Mezhdár, Sabák and Yár Khán; the housewives have tied up their bundles, the camel-drivers have loaded their bales. On the hill-passes of Bháwnar and Nágáhu, the yellow camels bend their knees, the male camels in long strings, the women with tender feet. Shíren has pitched her fair tent on the wide spreading land of Narmukh.

Feed the sheep on drantin-grass, the goats on red-flowered gwárigá, the Rinds on wheaten flour, the shepherds on curds, and the Lahrís on gwanberries.

She calls her beloved nurse and takes up an earthen cup, she goes to the sweet, fresh water, and her handmaiden washes her hair. She combs and smooths her hair and comes to her four-sided hut. She closes the door of the hut. They plait and spread the matting, and she reclines on the carpet.

She puts her hand into her bag and takes out a silver mirror, rests it on her shapely thigh and looks at her houri-like countenance. She weeps with her tender eyes, tears drop upon her cheeks and on her variegated breast-garment. Her companions and sisters assemble, fair comrades forty and four; they come and sit down by her, they recline upon blankets, they ask after her heart and condition.

They say, "Why are your face and earrings uncleaned, your red and blue clothes unwashed, your locks unkempt and dusty?" Weeping, she pushes the women away and says, "Away from here, women, you are not

good. Away! sit far off! Let my face and earrings be uncleaned, my red and blue clothes unwashed, my locks tangled and dusty; I do not want you for friends. He who was the friend of my heart, for whose sake I should adorn myself, I saw carried off from his native land by evil cursed Turks, shut up in the wealthy city of Harraud, within an empty stable.

The daughters of the Rinds form a band, (and wander) following in the track of the showers. The vultures come croaking, invoking good fortune. Breaking the Maur-flowers from their stems, and plucking the red gwáragh flowers, some place them in their boddices and breasts, some in their earrings, lower and upper, and some (keep them) for their true love's sake. Pluck one for my good luck, and keep it in your closed hand; and, secretly from my bitter foes, my own sister and love says, with hands raised up to God. "May God bring back Malik Dosten, according to his true promise, not this one, but the old one. Swiftly, tiger-like chestnut mare, bear him southwards, come by long stages, bring home my noble lord to dwell with his father and mother and the assembly of his beloved brethren. May Malik Dosten appear, may he appear to my sight.

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#### NOTES ON THE TEXT.

The text of this poem is taken from two versions, one recited by a Shambání, the other by a Marrí. There are some variations which are noted below, the Shambání version being marked (a), the Marrí version (b). The Shambání version is the base of the text. A fragment marked (c) from a Gurchání Dom supplies a line or two.

Lines 10 and 15 are supplied from (c).

Line 11 is only found in (b) and (c).

Line 18. For *rodhanání* (b) reads *mehlavání* 'spices.'

Line 27. *Lazant* is from (b). (a) reads *drafshant*.

Line 32. For *bánukhán* (b) reads *godiyán*, with the same meaning.

Lines 40—44 appear to be interpolated. They only occur in (a), which contains several passages not in the other version.

Lines 46—48 are from (b). The whole passage from line 45 to line 57 is almost identical with one in the poem of Lailí and Majnún. Lines 56 and 57 are from (b).

(a) reads: 'Phullen zán sará er-khant

Gindí azh wath o gonáfá

Line 62 is from (b). (a) reads 'Hírh jedírí chhil o chyár'

Line 68. For *dazzená* (b) reads *be-zauk-an*, 'unornamented.'

Line 69. For *gregh bíth* 'weeps' (b) reads *zahr gírh* 'is angry.'

Line 75 is from (b).

Line 77 (b) reads 'Suhrání riár rakhí.'

Line 79 from (b) (a) reads :

Turkán mughalán giptha.

Between lines 72 and 80 (b) inserts

Ganjen ispahán phár bítha

the meaning of which is not clear. Also after l. 81 (b) inserts,

Bakhá mír janeghá khushtha

Dost o ispahána bokhtha,

which is equally unintelligible.

Line 99. For pha 'towards' (b) reads phalav 'direction.'

Line 100. From (b) (a) reads :

Khosará dehán dírená

'Swiftly to his distant country.'

#### IV.

#### *The Rise of the War between the Rinds and Lasháris.*

[This poem is another fragment of the Chákar cycle, giving an account of the spoiling of Gohar's camels by the Lasháris, and Chákars' vow of revenge. The episode of the refugee-lizard is quoted by one of the characters as an illustration of the extreme Baloch doctrine of hospitality. Rehan and Járo the Rind warriors mentioned were sister's sons to Chákar. Dodá who is mentioned at the end is Dodá Gorgez, celebrated for the revenge he took for the spoiling of Sammí's cattle.]

Nodh Bahrám gushí: jaren Rashkání Baloch gushí: imar Bulmat  
Kalmat karákuṭán gushi: bágghár báutián gushí.

Whazh-gushen Lorí biyár wathí shághár

Má sará charon bairame phághár

Jawán mard dátárá gire dádhá

Zí azh Sannía giyáfená

Laqitha durren Gohará shodhá

Akhthaghá báutí gwara Mirá

Chákurá shírá zí gawar-zírá

Gohará durrená hawar dáttha

"Bagavo Mílahá avan dánen

Go má Lásháris jherave mánen"

Gohará laḍe sar-jamagh dáshttha

Dastá Gohar man Kacharak nyásttha



Raptaghant Shoráná phare sailá  
 Chakurá Mirí bandane shahrá.  
 "Má tháshún dan baghchaen Gájá  
 Gohar qáchi ma beghaván danzent  
 Máighá shír dan náfaghán shanzant"  
 Chákurá phurs' azh Malaven jatá,  
 "Zítá khan jat, de manán hálá,  
 Cho khutá khai go Gohara málá?"  
 Cho jawáb dátá Melaven jatá,  
 "Akthaghá Lášhári hame chindrí  
 Khusthaghá hir cho khenaghá mardí  
 Chham jatá durrghoshen Maheriyá  
 'Jat, hame gálá bile sheriyá  
 Phuṭuren Rind ma deraván druáh ant  
 Dáchi pha hirán hardame záhant' "  
 Badh burtha Reháná Nawávená  
 Phuzh Járavá jaur-jawávená  
 "Má phara durren Gohará hirán  
 Havbará shámálo janún shirán  
 Shart khanún haisi chotavá birán"  
 Bággar Jatoí jawáb dátá  
 "Ba-khú-án durren Gohara Sammí  
 Hota pha báután niyath khamí.  
 Shah Hussain cheravá roshá  
 Bibarí pheshá nishtha ma loghá.  
 Dar-shutha bágghár azha gedá  
 Choraván ilgá bokhtha pha dínía (or pha randá)  
 Gur-khanána dan medhira loghá ;  
 Demá dar-khaphtha mardume jawánen  
 Sharr kalánch ant cho dushtaghen shirá  
 Dholant oshíshe karáiyán.  
 Kíamahá minnate khutá-í bázen  
 'Choraván, bágghár bil, maní shámen  
 I-katar mára phar wathí námén'  
 Na-jánen joraejaven jatán  
 Kálihán bágghár khushtha pha latán  
 Odh niya' loghá Sammaven sálo  
 Dast kauliyá phijatha dánhí  
 'Agh phara bágghará na-ro báí  
 Man tháí bhen, tho maní bhái'  
 Hot mirání dará ákththa  
 Súrihá pha demá jawáb dátá

‘No Amul-máin, no Amul-máin !  
 Yarbare bosht, gal mayá goná.  
 Man phara bágghára khanán choná  
 An dighár shahmí bíth azh honá  
 Shingurá shast shángurá phanjáh  
 Drust pha bágghára bíthaghá yag-jáh  
 Omará nashke ishtha pha kaulá  
 Hon gire Bálácha phara honá  
 Súrih Dodá phara gokháa.

*Translation.*

Nodh son of Bahrám sings: to the fierce Rashkání Baloches he sings: of the war between the Bulmats and Kalmats, of the lizard becoming a refugee he sings.

Sweet singing minstrel bring your guitar, bind a large pagri on your head, let the good man receive gifts from the generous.

Yesterday thence out of fertile Sanní, marched the fair Gohar: she came for shelter to the Mír, to Chákar ever-victorious with the sword. Then spake fair Gohar “The Lasháris are set on quarrelling with me, they let not my camels remain in the Mílah pass.”

He collected all Gohar’s camp and goods and placed her in the valley of Kacharak. Then they (*i. e.* the Lasháris) came wandering to Shorán; to a town under Mír Chákar’s rule (saying), “We will gallop (our mares) to grove-encircled Gáj; let Gohar’s female camels mourn for their young in the evening; let the milk from their (unmilked) udders drip down to their navels.

Chákar asked Mela the camel-herd, “Quick, camel-herd give me tidings. Who dealt thus with Gohar’s cattle?” The camel-herd Mela thus replied: “The Lasháris came down here in wrath, they slew the young camels as if with the anger of men. Gohar the fair camel owner hinted to me to be silent about it, saying, ‘Herdsman, keep this matter quiet, let the true Rinds remain in peace, the female camels daily bear more young ones.’”

Then Rehan the Nawáb became angry, and Járo the Phuzh bitter in reply. “In exchange for fair Gohar’s young camels we will take a seven-fold revenge with our swords, we will gamble with heads and hair and turbans.” And Bágár Jatoí answered and said, “Where are the fair Gohar and Sammi (her sister)? When was a hero wanting to his refugees? As in Sháh Hussain’s day of trouble, Bíbarí sat in front of her house.

A lizard dropped out of a dwarf-palm, and the boys pursued it, chasing it into the chief’s house. Then the good woman came out in front to meet

them, wearing beautiful ivory bracelets, white as fresh drawn milk, slipped on over her soft arms. She entreated and implored them saying, 'Boys, leave the lizard alone, it is my refugee. Do so much for me, for your own honour's sake.'

The boys, ignorant and boorish camel-herds, killed the lizard with sticks. Her husband and lord was not there. She sent a complaint to him by letter, saying, 'If you do not go and fight on account of this lizard I am your sister and you are my brother!' Hot returned to his home, and the hero thus answered back 'Hear Amul-máin! hear Amul-máin;' stay where you are, do not speak.

I will act in such a way about this lizard that the ground will be filled with blood, and corpses lying sixty on one side and fifty on the other, all collected into one place for the lizard's sake, as when Omar was released on his own promise, as when Bálách took his revenge for blood, or the hero Doda for the cattle.

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V.

*The Competition between the Poets Sobhá and Gáhlí.*

Part I. Sobha addresses Gáhlí on the question of the Laghári refugees with Jawának, and taunts his tribe on their modern origin.

[These four poems constitute a complete specimen of a kind of exercise not uncommon among Baloch poets. Sobha a Khosa and Gáhlí a Laghári draw comparisons between their tribes and chiefs, challenging each other's claim to have come in with the original settlers under Mír Chákar, and taunting each other with failing in the exercise of the cardinal Baloch virtue, hospitality to refugees. Relán the Dom minstrel is commissioned by each poet to learn the words of his song, and to carry it back, and recite it in the assembly of the hostile tribe. The Lagháris and Khosas are old enemies, and their hostility still smoulders after thirty years of British rule.]

Sobha Thegh Alí gushí: Jarwáreñ Baloch, gushí: Khosagh Kalóí karákuṭá gushí: Laghári báutiyán kharde gál gushí:

Whazh-gushen Reláná shádkihání shághá bare  
 Máin salámá bi sháiren Gáhiyá diye  
 Nishtho droghání zawáná wash khane,  
 Ewakhí será go manán chachhon ṭule?  
 Bhúcharí Dálán kilát nám gire  
 Nuh-manen báránrá wathár kans diye  
 Jawának urdání raghazá roshe khafe

*Ahin* shar háthi raghasá chít ártthaghe  
 Sher chápulá azh Kharrá thalá guze  
 Go manán hair bí, zamíná jábí lahe  
 Phesh gudá main sailavání depánthave  
*Agh* thará wahm bí zamíná jáíz khane  
 Dav-charen zahmání ná-washen jáhá rase  
 'Shingura 'shángur lashkarán dem-o-dem khuthe  
 Zahranen mardán nodh-dilá seráfá jathe.  
 Jawának urdání tawáren goshán khaffi  
 Har-chyár demá ghoravání dáto rudhí  
 Cho thái bachhání dafání gonáf hushí  
 Nodhí berána beghavá biyáyan thánahí.  
 Biyá, O Lasháí, azh gwareyá dar-khaphthaghe ?  
 Guđe Zunuwá ghoravá roshá gár athe  
 Sailáí Míren Chákurá phauzhán ruthaghe  
 Rind nar-borán azh zamíná resinthaghe  
 Khushtaghá Rámen damámo charenthaghe.  
 Dai manán nashkán tho kithán rosh khard bíthaghe,  
 Bakar O Rámení kithán laqá gon athe ?  
 Ghoravo urdán phelattho Turkání rukh ath  
 Doshí ma Jhalá Turk ghoráyán grandaghá  
 An demá Gandávagh Hudhá main dem bíthaghá  
 Turkán shád kámá Rind 'shamedhá zahr gipthaghant  
 Hon azh chamání chimáká dar-khaphthaghant  
 Gwashtha Nayáníyá ' Main hudhábund go-khaphthaghant.'  
 Lajavo, Shorání dhaníyán grán bithaghant  
 Bijar, Phuzh, Chákar Shahdhár ákhtaghant  
 Allan o Miskání Sahák Mádán athant  
 Bagavo lajjání sará katár dáthaghant  
 Asp go sonáen zariyá bashkátthaghant  
 Rind azh nokh-zenen biháná er-khaphthaghant  
 Piyádhaghá Rind azh takht Shoráná ákhtaghant  
 Thorave Rindára olí Lasháí war adh  
 Mir go Phulá azh Kawará drikhenthaghant.  
 Whazh-ghushen Relán shádhíhání shághár bizír  
 Mard pha bátán choshaut, sardáre maní  
 Gáhwar o Háneñ Sáhíbaná jag-sahí  
 Gwar Nawáv Hán kúk burtha bázen bari  
 Gorisháníyá sángat o Káhan Marri  
 Burzá go Summenzáiyá brádhargári  
 Ákththa gwar Háneñ Jawánaká bátán thái  
 'Khosaghán, ki man neyán Lagháí khadhí'  
 Go má chyár sálá nishthaghá bátúí shariikh

Bandave khoheh nashkato hapt phushti guzi  
 Mánik loghá har-khase omedhá duráh  
 Mánik kaṭo bihisht jo sará  
 Gudí sammá, kotái pahráe phadhá  
 Do Balocháni ákḥthagant wákyái sará  
 Do shafán bíṭha gwar thei khánen Methirá.  
 Chham anziyán rapthagant grihána phadhá  
 Dobahá dáṭhen markhave, paidáish khuthen  
 Lajjí bánukhán phar wathí sháná bashkathen  
 Doda thei námúz man jiháná mashhar athen  
 Gudá dráhiye basthai go Hánen Shakalá  
 Túmi gwádhentha wa ganjen Bakará  
 Jawának phauzháni sara Gájí barbará  
 Sháh máriyá gonekhá go sheren Haidará  
 Ní ki ákḥtha dan Sirí Mitháwaná  
 Niyámghí Zihár main sharíkhán har do sará  
 Jahl-burziyá hek-byá resintha jarán  
 Deúni rebá er-khafí jáhiyá buná  
 Sher ki gwámesh phrushí loṛhiyá dará  
 Bánz ki símurgh jhaṭíth maidáná sará  
 Hánen Arziyá gwánkh be ambráyá jathá  
 Khosaghá nál bastha galaghá kurká khuthá  
 Laj whántkárán phil-atí símurghíá burtha  
 Ispár o savzen nezaghán Bashkyá sáh khutha  
 Hánen Dilshád mardiyá berá tharatha  
 Shái phítha ashk en ki shawár paidá khutha  
 Har do urdání nyámaghá sámí suhr khutha  
 Dodá Hánen Jawánakár zíthen hair khutha.

*Translation.*

Sobha son of Thegh Alí sings : to the Jarwár Baloches he sings : of the fight between the Khosas and Kalois he sings : of the Laghári refugees he sings, as follows :

Sweet singing Relán take away your guitar from the assembly, give my salutation to the poet Gáhi (saying), Sit down and make clean your tongue from falsehoods. How can you weigh single *scers* against *maunds*. You mention the forts of Bhúcharí and Dálán, you are placing nine-maund weights upon yourself. In the face of Jawának's armies you will fall in a day, beneath that elephant's foot you will be crushed, beneath its blow you will pass away from the valley of Kharr. Make peace with me that your land and place may remain to you before you are again terrified by

my sword. If you are anxious, then legalize (the possession of) your land, for when swords are biting you will be in an unpleasant place, when on this side and on that armies stand face to face, and angry men are satisfying their swords' hearts (with slaughter).

When the shout of Jawának's hosts falls upon your ears, and the dust of the horsemen rises on every side, so that the moisture of your sons' mouths dries up, and the cloud-like (mares) come galloping (loose) to their stables in the evening.

Come O Lashári, where did you originate from? You were missing on the day of Zunú's horsemen; did you reap (a harvest) of Mír Chákar's army? did you chase the Rind chargers (lit. male chestnuts) from the land? When Rámen was killed you played the drum. Give me your tokens (to show) when you became separate from us. Did you march away with Bakar or with Rámen? Did you accompany the horsemen or the army to meet the Turks? That night when the Turkish cavalry thundered in Jhal, or towards Gandáva when God was on our side, when the Turks rejoiced and the Rinds became angry; blood issued from their eyelids, and the women said "our lords have met them."

The rulers of Shorán became heavy with shame; Bijar, Phush, Chákar and Shahdhár arrived there, Allan and Sahák Miskání were there; they gave a string of camels to ransom the shame-faced ones (*i. e.*, the women taken by the Turks), horses they gave and bright gold, the Rinds alighted from their newly-saddled fillies, and on foot (having given up their horses) the Rinds returned from the throne of Shorán. Formerly the Lasháris also showed kindness to the Rinds, when they let Mír (Chákar) gallop away from Kawar on Phul (the name of a mare belonging to *Nodhbandagh*).

Sweet-singing Relán, take up your guitar of merry-makings, (and declare) what sort of man my chief is towards refugees. Gághwar and the Chief Sáhib Khán are the most trustworthy of men; many times did they complain to the Nawáb, that the Gurchanis had made a union with the Káhan Marris, and a brotherhood with the upper Summenzais. Your refugees came to our chief Jawának, saying, "we are Khosas, we are no longer Leghárís." Four years did they stay with us, sharing in our protection.

The marks of their dwelling on the hills shall remain till seven generations pass. In Mánik's house every one lived in great hope; (for this Mánik (shall have) a dwelling on the streams of Paradise.

(To your chief), in his latter age after the stage of deceit (in his second childhood?) came two Baloch women seeking for refuge; two nights they stayed with your mighty lord. Tears fell from their eyes and they cried aloud. He gave them the mares for twice their value, he made a profit of it, to his own shame he gave them to the shame-faced women.

Doda your chief became celebrated in the world! Then he made an agreement with Shakal Khán, and made them pass on to Túmí and wealthy Bakar.

The helper of Jawának's armies is the Pír Gájí Barbar. The saint accompanies us, riding on a swift camel, with the lion-like Ali. Now that we are come into the Sirí and Mitháwan (names of torrents on the Deráját frontier). Zíhár is the arbitrator between the parties on both sides. Up and down did the two bulls pursue each other (*hek-byá* a Punjábí phrase). Let us deceive them that they may descend to a lower place. Just as a tiger strikes down a buffalo outside its hedge, or as a Símurgh strikes a hawk on the plain, so did the Khán call Arzí and his companions. The Khosas shod their horses, the troop made a rattling. Your chiefs were ashamed, as when the Símurgh carries off an elephant. With shields and grey spears Bashkyá made a shade. Dilshád Khán heroically encompassed them about, honour to the father who bore you! Between the two armies they made their graves red. Dodá then quickly made peace with Jawának Khán.

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Part II.—*Gáhí replies, praising bravery and taunting Sobha with being a coward, and not a true Rind.*

Gábí Gorish gushí : Kaloí gushí : Sobhár phasave dúth gushí.

Whazh-gushen Relán shádhíbaní shághá biyár  
 Kaunsh bángavá gwar maní báládhá bidár  
 Chambare sak jan, malgí dílá gham guzár  
 Jangi katará dil machande : jawánán bisár  
 Nishthaghe satá whash nish námúdh-ṭawár  
 Azh waliyání khashthaghe rand o kissawán  
 Hair phadhá : ráj-hán rosh ant, jang syáhen shaf ant,  
 Jang phadhá mard o markhavan jawain rosh nayant  
 Gáhwaren hindí bingaven hotán charant  
 Dhauraven koṭání sawádá zel khanant  
 Chandeán warná pha dafá gozán janant  
 Jangavo ninja bí, phadhá pahnádh girant  
 Bingaven hotání raghámá ambráh nayant  
 Azh phadhá guḍá nishtho amsodh warant  
 Go doen dastán sar o záná janant  
 Jangání qabká har-chyár khundán phirant  
 Gwadilen mar go gindaghá goriyá trahaut  
 Ashikání káren medháná ravant

Taukal beriyá dilár telánká diant  
 Malgí dílá pha ziriĥ o ziriĥ-phosh khanant  
 Kadahán zahrená sharábí nosh-khanant  
 Ma sagháráni thasthaghen jhorán khafant  
 Gáhwaren theghá phar wathí námúdh janant  
 Go wathí khánen Methirá miskí zar ant.  
 —. Whazh-gushen Relán shádhíhání shághá bare  
 Main salámá bi sháiren Sobhár diye  
 Methira randá zir ki Bompurá khai e  
 Man dilá zán ki tho Khosaghá máthí bráth naye  
 Sov labán nyámaghi dárán sushe  
 Armáná! zánant azh sadhen sálán gwasthaghe  
 Hai gannokh e hai zha thána kisthaghe  
 Bakar o Rámení shaghána mára jane  
 Tho khithán roshí Rind Lashári bithaghe.  
 Ki man daryáyáni lahravo chalán gár-athe  
 Beghavá míren Chákurá chaukidár athe  
 Má wathí shán cho mastharen Rindán pholattha  
 Ewakhí ser go manán har-ro tolattha  
 Man thái háthí maghazá shon dián  
 Biyá medháná chambavá símurgĥ bián janán  
 Arava mardán Sáwano lahri rasthaghe  
 Nokh-nochán phágh phitthí mardum basthaghe  
 Mark násenthe, pha chihán roshe shádehá  
 Shán phirenthe, gandaghen gín dostehá  
 Man dilá zán ki maut thará nelí dásará  
 Dodái dāng bithen man bawren chádhará  
 Medh Máchiya Hamzahá jorí na be  
 Khosaghá Rindá manavo máníya dare  
 Phuṭuren Rindán cho khuttha báut phadhá  
 Gohare hirání sara cho khuttha Míren Chákurá  
 Sammiya gokhání phadhá Dodá lurá  
 Khoh sardemá keharen máná lurá  
 Sar wathí dáthai garímen mál sará.

*Translation.*

Gáhi son of Gorish sings; the Kaloí sings; in reply to Sobhá he sings.

Sweet-singing Relán bring hither the guitar of rejoicings; bring into my life the fresh breeze of the morning; strike powerfully with your fingers, drive out grief from the bright (coloured) body. Do not frighten



the heart with battle-array ; praise heroes ! Thou hast sat in the assembly with an ever sweet song of praise, and from our forefathers hast drawn forth our tracks and legends.

After greeting : The chief is the day, battle is black night ; after a battle for men and horses there is no blessed day. The glittering weapons devour youthful warriors, and make populous forts empty of display. Some youths boast with their mouths, " We will be bold in the fight," but afterwards they turn their backs and are not in the company of the storm-cloud of young heroes. And afterwards they sit and lament and strike their heads and thighs with both hands.

At war's alarm they wander to all the four quarters. Cowardly men flee like wild asses, at mere sight (of a foe). The business of strong men is to go to the battle-field : they give their hearts a push off (from the shore) in the boat of confidence : they clothe their bright bodies in helmets and armour : they drain cups of fiery spirits ; with burning white brands they fall upon the crowds, they wield their glittering blades to their own fame ; with their own Lord and Chief they become like a sweet odour.

Sweet-singing Relán, take away your guitar of rejoicings ; give my greeting to the poet Sobha, and say ' Examine the tracks of our Chiefs, and see who was at Bompur. Know in your heart that you are not whole brother to the Khosas. A venal awarder of victory, you will be burnt with wood. Wretched man ! They know that you have past a hundred years, that you are either a fool or have abandoned your home. And in that you cast scorn at me regarding Bakar and Rámen, when was it that you became a Rind or a Lashári ?

For you were lost in the waves of the river's flood, you were Mír Chákar's attendant for your (daily) evening food, while we, like mighty Rinds, sought for glory and every day weighed our single seers against maunds. I will explain things to your elephant's brain. Come into the battle-field, and, becoming a Símurgh, I will strike you down with my talons, as in Sáwan (the rains) the torrent sweeps away the men of Áro. You bind on the new and fine pagri of other men ; you are gasping in death, when can you have any pleasure ? You have cast away honour and made yourself a friend of worthless life ; know in your heart that at last death will not spare you. There was disgrace on your head in the matter of Dodá. Medhs and Máchis are not fit companions for Hamzah. You are excluded from home and food with Khosas and Rinds. For how did the true Rinds act with regard to refugees ? How did Mír Chákar act with regard to Gohar's young camels ; and about Sammí's cattle, how acted Dodá with the sword ? when, like a tiger on the mountain tops, sword in hand, he gave up his life to protect the cattle of the poor.

N. B.—Dodá here alluded to is Dodá Gorgez, a legendary hero, not the Dodá Kaloi mentioned in the former poem.

III.—*Sobha's rejoinder, going over the legendary adventures of the Rinds, and asking what share the Kalois took in them.*

Sobhá Thegh̄ Alí gushí : Jarwáren Baloch gushí : Gáhiyá phasare dáth̄ gushí.

Kádir námá har sawáhá yád khanán  
 Sag-satáren bandaghí ardáse manán  
 Relání Lorí biyá hadisání durr-gebán  
 Sáz-khane shághá gwash Balochání nugdahán  
 Dáimá nyádhe bíthen go Sultání sarán  
 Rind o Lashárá ma buná bráthán dáimá  
 Má khutka Lashárá Baloch khaptha pha shaghán  
 Mehna e zánki roth̄ Panjgúra dehán  
 Kech Panjgúr kissaván gosh dár ki gushán  
 Má hawán Rind ún, azh Halabá phádh-ákhthaghún  
 Dubarán jangí go jazizá mán-ákhthaghún  
 Dem rosh-ásán saríná er-khaphthaghún  
 Hamzái aulád sobh rasúlá bashkáthagh-ún  
 Hárá malbána ráhí sháh-dagá khaphthaghún  
 Ungurí dastá thibare jangá gipthaghún  
 Pha Karím sáz kuzratán shodhá gwasthaghún  
 Shahr Istámbol go Imámá wath̄ charthaghún  
 Ma Jaghína gwar Shams-dín Sháh ákhthaghún  
 Shodhá Hárina pha turá jangí khashthaghún  
 Ungurí Kech Makuráná bahr bíthaghún  
 Shahr Sístáná o khamáná bahr bíthaghún  
 Shedh pha demá má Baloch tálá bíthaghún.  
 Shedh pha demá tho wath̄í nashkán de manán :  
 Rind mán Kechá ; Kech thán demá nishthaghe ?  
 Chih o chyár halkán ; go khai laqá gon-athe ?  
 Ní ki laqána khaurí sarhaddá ákhthaghún  
 Las-Belá o Kalmatiyá gíwar-thaghún  
 Habb Báráná pha muvárík she-bíthaghún  
 Pheshá Núbání azh Naliyá er-khaphthaghant  
 Jistkání ma Gáj síháf ákhthaghant  
 Lak Salárá Chándeh azh Káchá khaphthaghant  
 Rind Lashárá Narmukh rej bukhthaghant

Rinde Dháqará saríná er-khaphaghant  
 Lashár pha Gandávagh saráerá bíthaghant  
 Jalikán Loí tho khihán joán bahr áthe ?  
 Gind ! nawán Gáhí tho radhiyá gon khaphaghé  
 Arna Hárín basthaghen baldán gon áthe  
 Tho hawán roshe be-mayári ákhtaghé  
 Sáhíb rosh zurthaghen, zarán ártthaghe  
 Sherá mán-dátka pha do-handá khard bíthaghé  
 Zindagh o druáhá mán dighará sar-bíthaghé  
 Phurse Gáhiyá, tho chi maskífi zindaghé  
 Wapthaghen mardáni tafákhán go man gane?  
 Tho go dah loghá ákhtho báut bíthaghé  
 Hán míriyá pha barátán chári áthe  
 Túpak daste Umar Hán bashkáthaghé  
 Man dilá zán ki tho mazain shán mat niye  
 Tho ráj áhan-e, án thái sultáni sar-ant  
 Gwar maní mirá ákhtho báut bíthaghé  
 Har chyár khundán har hamú Ráján díthaghé  
 Kumbhí gokhání shagháná mára jane  
 Khob phísh-buren, ambaráni sifát khane  
 Gwashthaghán gálán Gáhí, tho saharál na be  
 Medhírá randá zír pha Bompúrá kháyant  
 Mánika halká hon avo lajján ríkhthagant  
 Dan phadh-o-pheshí chedhaghí nashk oshtátthagant.

*Translation.*

Sobha son of Thegh ' Alí sings ; to the Jarwár Baloches he sings ; in answer to Gáhí he sings.

Every morning I remember the Creator's name, my trust is in the service of God.

Come, minstrel Relán with your beautiful legends, play on your guitar, chant the praises of the Baloches. You have ever been a dweller with kings, Rinds and Lasháris from the first have ever been your brethren.

I who called the Lasháris Baloches am scorned by you. Know that the scorn will travel to the country of Panjgúr. Attend, then, while I tell you the stories of Kech and Panjgúr. We are those Rinds who arose from Halab, and twice joined battle with the infidels. Setting our faces to the rising sun, we descended from the west ; we are Hamza's offspring, the Prophet gave us victory. Leading our strings of camels, we pursued our way along the highroad. Coming in this direction we fought again, and by the might of the Merciful we passed on thence. At the town of

Istámbo! we rode with the Imám himself; In Jaghín we met with Shams-u'd-dín Sháh.

Thence we rapidly drove out Hárín in fight. Hither Keeh and Makrán we distributed, we divided the cities of Sistán by khamáns (*i. e.* bows, a bow representing a man's share). Henceforward we Baloches separated, henceforward do you give me information about your track. The Rinds were in Keeh: in what part of Keeh did you settle? There were forty-four settlements: with which camp were you? Now when marching on we arrived at the torrent boundary, at Las-Bela and Kalmatí we separated, and we settled in prosperity at Habb and Bárán. First the Nuhánís descended by the Nalí pass. The Jutkánís came to the running water of Gáj. The Chándehs descended from Kách by the Lak and Silári passes. The Rinds and Lasháris pitched on the irrigated lands of Narmukh. The Rinds descended from the west to Dhádar, the Lasháris came from above down to Gandáva. In Jálíkás and Loí what streams did you share in? Look! Gáhi, perhaps you were with us by mistake. Or perhaps when Hárín was defeated, you were among the captives. You came shamelessly on that day, when, having robbed Sáhib of life (*lit. day*), you carried off his wealth. Having attained the low-lands you separated into two parties, alive and well you lay down (*hiding yourselves*) on the ground. Ask (*and find out*), O Gáhi, in what disgrace you are living; will you compare with us the dreams of sleeping men? You came with ten wives (*lit. houses*) and became a refugee, you posted yourself on the look out for our Khán's charities; you received a gun as a gift from the hand of Umar Khán; know in your heart that you are not worthy of great honour: You are their chief, and he is overlord of your chieftainship, for you came to our chief and became a refugee, and it was seen by all the chiefs in all four directions. You taunt me about the cattle at Kumbhí? You are but a cutter of phish on the hills. (The leaves of the phish or *Ohamorops ritichiana* are cut to make matting.) You extol servants (*not chiefs*) My song is sung Gáhi, though you may not understand it. Take up the tracks of the chiefs who came to Bompúr. In Mánik's village blood has been shamefully shed, and formerly and lately cairns have been erected in memory of the slain.

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IV.—*Gáhi's final answer, following up the Rind legend, and taunting Sobha with cowardice.*

Gáhi Gorish gushu: Kaloien Baloch gushi: Sobhár phasave dási gushi.

Biyá o Relán shádhíhání  
Sháhghází cháravání

Majlis jawánen sarání  
 Zír maní guftár-gálán  
 Bar gwar jang-dosten syálán  
 Band-bozh gálán dahena  
 Phasaván sar pha sarena  
 Gondalán serán manena  
 Bar dan Sobháen nighoshi  
 Olí guftárán shamoshi  
 Zírí randá phírukeghá  
 Bahr khant milká phitkeghá  
 Chi gushán man sháirára  
 Dil-harifen sugharára  
 Khashí Rindání shaghána  
 Yád khan' olí jibána  
 Gosh sobha mangihání  
 Daftári e Khosaghání  
 Rand zurthe Makurání  
 Rind Lášhár dehání  
 Rind Lášhári áwará  
 Raftthaghant azh Kech shahrá  
 Akhthaghant Hárín malána  
 Mulk mítáfá girána  
 Bráth-yári bahr-khanána  
 Bíthaghún bahr khamáná  
 Má ki Jatói yagsar athún  
 Síim jóá pha-do athún  
 Mulk shahrá nemagh athún  
 Roz bahr pha thír-darán  
 Chyarakhe ma Dhádar athant  
 Sermá ma Khánpur athant  
 Hand ma Rej deh athant  
 E maní perá o rand-en  
 Phuturen Rindání hand-en  
 Nám ma ráján buland-en  
 Agh thará itibár na-bítha  
 Khasá go chamán na-dítha  
 Khatte kuhne gwar niyáthen  
 Gawáh sháhid kadh niyáthen  
 Kissavání kissav-áthant  
 Har-khase 'shí hanchosh-athant  
 Man sáhíyán Sobha, káp káte  
 Ne pha rand perowáte

Sov drapá Jawána<sup>keghá</sup>  
 Júfo jhatá was<sup>hiyá</sup>  
 Drogh bande záhiriyá  
 Rást gushagh rást riwáh-en  
 Drogh pha imána khatá-en  
 Ar pha guftáre taiyár be  
 Shedh-demá gawáhiyá de,  
 Khatte mára khash phe-de,  
 Biyá, azh shairán karár khan,  
 Olí Rindán pha-phadhá khan  
 Ninavakh<sup>ta</sup> kissavá khan  
 Surphadhení pha-gwará khan  
 Main hadísán man dilá khan  
 Sobha khapthaghe azh drikh-bálán  
 Tháí nig<sup>hwári</sup> sher nálán  
 Sunya tháí 'lúví dálán  
 Zurthiyá jangá maniyá  
 Zulm-zorá sahibiyá  
 Phrusthaghá be-ronaghíyá  
 Zurthaghe mardán gihená  
 Chandehá juhl-khenaghená  
 Rúnghan Bádor yarán  
 Sanghar ládí mazarán  
 Shán hilálen khohistáná !  
 Muhammad Hán druh-giháná  
 Zeb Buzdará hilál-an  
 Shaddav o khes go khawáhán  
 Nind-nyádh gwar Umaráhán.  
 Hál khárthán hánskári  
 Gwar maní Sardár Háná  
 Gwar má báutí ki ákh<sup>tha</sup>  
 Azh tháí jangá rahetha  
 Rúnghan o Kanđor Bádor  
 Shángo Sanghar dan Siriyá  
 Band Bázen Bákhariyá  
 Ráj a<sup>hant</sup> simán dariyá  
 Drust khákh<sup>thagant</sup> whazh-dilíyá  
 Gwánkh Leghár chariyá  
 Phurs, Sobha shairára  
 Sughar o lekhí was<sup>hára</sup>  
 Wházhá 'shí mehd<sup>hírára</sup>  
 Wházhá tháí dem ma shustái

Lashkarán Jáme ma khushtái  
 Shakula ber shamushte  
 Mangehí shair pha hisáv-ant  
 Gál pha uzhmár o kitáv-ant  
 Majlise ma meraván bant  
 Dan nighoshán nishthaghen sat  
 Akhthaghen báut ki kháiyant  
 Gird sardarán gihená  
 Dostant cho chhamán doená  
 Azh bachh-bráthán bingoená.  
 Sh'á pha báután wathíyá  
 Lajj neshtha pha-phadhíyá  
 Bakhoen shwái mangeho shán  
 Kadh na khant chho ma Balochán  
 Akhthaghe lajján wathíyá  
 Khashthaghent gudr lavilán  
 Mál madí go galímán  
 Basth-khárthant main vakílá  
 Azh thái kotá garhená  
 Thái mehdhirá dir-zánaghená  
 Dítha go chhamán doená  
 Gosh Sobha o niyázi  
 Esh maní guftár-bázi  
 Tho ki guftáre kahítha  
 Man dí pha goshán sunita  
 Túpaka danga ganítha  
 Chi ma sháná sar-ákhítha ?  
 Phurse' sardará wathíyá  
 Jawánaká be-ámilená  
 Bakmal o bor go khawáhán  
 Dáthaghen main Umará Hán  
 Hán Balochána Nawáva  
 Nukarí bokhtha azh tháná  
 Dátha hoten Jawánakára  
 Pholatí olí ba-nindán  
 Bithaghe báut go Rindán  
 Khoh phish-buren nihengan'  
 Phish phara khohá shaghán nest.

*Translation.*

Gáhi, son of Gorish, sings to the Kaloi Baloches : in answer to Sobha he sings :

Come, O Relán, to the assembly, king and hero of song; In this assembly of young chiefs, take my speech and song, carry them to our war-loving foes. With propriety utter these few (lit. ten) words, answers given categorically, (head on head). They are arrows, of which a ser weighs a maund. Take them to Sobha, that he may listen to them, and forget his former songs. He will, he says, take up the track of our ancestors, he will distribute the paternal inheritance; what shall I say to the poet, to the cunning poet? Let him give up mocking at the Rinds and remember the former world. Say, O brave Sobha, you are the bard of the Khosas; you took up the track in Makrán, the lands of the Rinds and Lasháris.

The Rinds and Lasháris together set out from the city of Kech. They marched upon Hárín, taking the land of the country and dividing it among the brotherhood. We divided it by bows (*i. e.* a share to every one armed with a khamán or bow). We and the Jatois were united. At the border stream we separated into two parts, town and country we divided into halves, distributing our substance by arrow-stems. One-fourth were in Dháqar, we got our satisfaction in Khánpur, our dwelling was in an irrigated country. This is our track and trace, the abode of the true Rinds, a name exalted among chiefs. If you do not believe it, no one has seen it with his eyes, there are no ancient documents forthcoming, there were no witnesses to attest it, but there are tales upon tales, every one says that so it was.

I am right, Sobha, you are blind and deaf, nor is your footprint to be found on the track. Fear to speak of the victory of Jawának, take your bribe quickly, for you are manifestly inventing falsehoods. To tell the truth is the true custom; falsehood is a blot upon honour. If you are ready with a song, henceforth give your evidence, bring forth and show me your documents. Come! desist from any further poems, let alone the Rinds of bygone days, and tell stories of the present times. Surround yourself with men of understanding and lay to heart our traditions. Sobha, you have past the time for leaping and flying, your youth is under your feet, bare are the branches of your Túba-tree. You were carried away in battle with us, by the fury and force of our chief, you were broken ingloriously.

You were defeated by brave men, by the deeply-hating Chándyas, by our friends of the Rúnghan and Vidor torrents, by the mighty tigers of Sanghar. Honour to the faithful hill-country, to the perfectly-brave Muhammad Khán, jewel of the loyal Bozdárs, with silken turbans and garments, dwelling with Umar Khán.

A sure message I brought to our chief 'Those who have taken refuge with me, have ceased to be with you in war. The Rúnghan, Kandor and



Vidor territories, from Sunghar to the Sirí torrent, the Band Báz and Bákhar, who were outside your chief's territories, have all come of their own accord and mount at the call of the *Lagháris*.

Ask, O poet Sobha! reckon yourself up in your mind and call our chief 'Lord.' If our chief has not washed your face, then you did not kill *Lashkarán* and *Jám*. Have you forgotten the revenge taken for *Shakul*?

An account is kept of good poems, their words are enduring and are written in books, they are recited in the assembly and they remain firm in the (recollection of the) listeners. Whenever refugees come or shall come to worthy chiefs, they are dearer to them than their two eyes or than young sons and brothers. You, for those who take refuge with you, have not given up shameful conduct for the future. Where is your great honour? No one does so among Baloches. You brought your disgrace upon yourselves (by the way you acted towards the refugees). They displayed anger and rage.

Their cattle and property had been seized by the enemy. Our *vakíl* (demanded them) and brought them back bound from your fort! Your far-seeing chief saw with both his eyes then! Listen Sobha and attend. This is all my song. The song that you sang I also have heard with my ears. I have counted your gun-barrels. What honour is left to you? Ask your own chief, the unworthy *Jawának*. Velvet and chestnut mares and silk did our chief *Umar Khán* give him. The Baloch *Kháns* and Chiefs unloosed their white mares from their stables and gave them to the valiant *Jawának*!

Ask of your forefathers how refugees fared with the *Rinds*. It is the phish-cutters on the hills that are the tigers. There is no disgrace in cutting phish on the hills.

#### VI.—A love-song.

(Said to be by *Jám Durrak* a *Dombkí*, a celebrated poet who lived in the reign of *Nasír Khán* of *Kalát* in the last half of the eighteenth century. He is said to have undergone great persecution from the *Khán* on account of his love for a lady of the *zanána*.)

O *Samín be-phursá bihishtiye*  
*Azh latifá nemaghá khaiye*  
*Man gulá dema mail khuthe doshí*  
*Bairamo ási sár khuthe mátos*  
*Bo azh brikhán raphaghan whashen*  
*Hijr manán momín janant pásán*  
*Cho kahírání áraven ásán*  
*Be-karár-án ma nemshafí pásán*

Pha whashí o dost hubbo iklásás  
 Zillatás sáhsáre deás jáná  
 'Nah' na khanás pha dost pharmáná  
 Cho isparás dempás maní jáne  
 Chábuk o chashm díd paikáne  
 Kahr amulání girgires názant  
 Dadame gár-ant dadame báz-ant  
 Nain dafá gir ki gál khanás roshen  
 Nais manás kurzat mazál chosh-en  
 Pha dafá mahljá dí ján áyás  
 Nishtho duá go hawás roshe  
 Wa hudhá merhás mas dilá shefi  
 Er-khafi dost azh thangaven tha.khtá  
 Biái rodhána cho chyárdahí máhás  
 Masaron bí cho Akbare Sháhás  
 Guqá azh durr-chíren dafá phursás  
 'O badhashkání grán bahá lalen  
 Mára thái loghwáren sareu saughan  
 Irmiri gon-khapton annágáhi  
 Phar thái sahtá sakalen nyádhás  
 Hon bahá ban pha sakalen khulkán.'

—

*Another Song by Jám Durrak.*

Doshí dil-raváshen jání  
 Sartáj o samand kháqání  
 Gwashtom pha dafi phanání  
 Osá thau machar haivání  
 Gird-i áravás phirwání  
 Chandí áshkánrá ziyání  
 Kulfo phrushtbaghás shakání  
 Ishk o maníha hakání  
 Gwashtom keghadhen sázará  
 Durchíno hasár názará  
 Phulkand o shakar guptará  
 O hál i fakíre esh-an  
 Zirde azh phirádhan resh-an  
 An ki málik dozdar-an  
 An azh munkirán bezár-an  
 Jám jámaván kháksár-an  
 Harzatá darúd kár-an

Sháhen kirdagár ásár-an  
Gwafshe nem-shafás nál-an.

*Translation.*

The rain that un-asked for falls from Heaven comes from the direction of the beloved one. Last I met a love face to face. The lightning springs forth, it is my love that has awaked me. The scent of her locks has sweetly seized me. The pain of separation sharply stings me in the night-watches, I spring up like the flame of Káhir-wood (*Prosopis spicigera*), I am without rest in the midnight watches, for the sweetness of meeting with my love. Give my body some breathing-space from pain, I will not say 'No' to my loves command, my body is as a shield stretched forth. Let my eyes be gladdened by the sight of my fair one, let the pain caused by my lady be a little appeased; sometimes it disappears, sometimes it increases. I cannot use my mouth to speak by day, I have no strength, she is so strong, to come to meet and speak to her.

I sit and pray for that day: 'O God, be merciful, and incline your heart to me.' Let my love come down from her golden throne, let her come growing like the waxing moon on its fourteenth day, let her be in front of me, and I shall be king Akbar. Then I shall ask from her pearly mouth 'O priceless ruby like the badhashk fruit, make me your husband, bound by oath, my heart has been irrevocably taken possession of, I will live for the sake of your jewel-like beauty, I will spend my blood for you, fairest of beings.'

*Second Song.*

Last night I saw my heart-enchancing love, the crown and ornament of women. I spoke to her with my lips and said 'Do not behave foolishly, like the moth flying round a flame, O bane of many lovers.' The locks of hesitation are burst open, I have obeyed the call of true love. I said to my beautiful love, 'O fair one of a thousand wiles and sweet sugared speech, this poor wretch's state is this, his heart is galled with his complaints, he who is a chief and true friend is apart and averse from the avaricious. The heart of Jám is covered with dust. It remains but to say bism'il-láh in the divine presence, to remember the King and Creator, and to pray through the cold midnight.

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*Riddles, Proverbs, &c.*

The Baloches are very fond of riddles, which are always in rhyme. They are of a primitive type and generally defy solution. The more far-fetched they are, the more appreciated. Those first given are by Bráhim a Shambáni who died about two years ago. He was celebrated for his riddles as well as for more serious compositions.

1. *Bujhárat*.—Ya shai jawain ulkahá astá  
 Duzhmanéá resentha-ish khashtá  
 Bánghavá pahre ráh sará gwasthá  
 Go minnat merhán niyadh dastá  
 E bujhárat Bráhimá basthá.

*Bozh.* Warnái.

*Riddle*.—There was one good thing in the world; an enemy has pursued and turned it out. In the morning watch it passed along the road. Neither begging nor praying will bring it back again. Bráhim composed this riddle.

*Answer*.—Youth. (The enemy is old age.)

2. *Bujhárat*.—Hudháí kurzat o kárá  
 Zamín nestath o dighará  
 Be khishthaghen khishará  
 Hudháí kurzat o kárá  
 Sabz o phul bahará  
 Pha phashaghá di taiyará.

*Riddle*.—By God's might and power  
 With neither ground nor soil  
 Without a field being ploughed  
 By God's might and power  
 A green plant has flowered  
 And now its fruit is ripening.

*Answer*.—This was composed on seeing an ear of corn growing on the beam across the mouth of a well.

3. *Bujhárat*.—Bráhimá pairí gwashtaghá gále  
 Díthaghún 'chie rangá be hále  
 Rangen kojhá andaren lále

*Bozh*.—Askhohe.

*Riddle*.—Last year Bráhim said 'I saw something of an indescribable sort. Its appearance was foul, but there was bright red within.

*Answer*.—A flint.

4. *Bujhárat*.—Ya shai jawain ulkahá yaká  
 Go jherave jangán sadhbare saká  
 Har-khase kháith, jathí wathí chaká  
 Man na gindáni jagáhe dhakká  
 Gosh dánáhá shára bozh wa hakka

*Bozh*.—Chháth.

*Riddle*.—There is one good thing in the world, a thousand times attacked with disputes and quarrels; every one comes and throws it over

himself, yet I cannot see anywhere a sign of hurt. Let the wise ear attend and guess it right.

*Answer.*—A well.

5. *Bujhárat.*—Ya drashke jorentha páken hudháya  
Ma zamín phushtá pha jinden razáyá  
Bund yaken-í lám-b-en duáyá  
Yake reká bítha, yake sawáyá

God has planted a tree, of itself it has grown up on the face of the earth; the root is one, the branches two; one is dust, the other ashes.

*Answer.*—The tree is mankind, the branches Musalmáns and Hindús.

6. Talabí naukarant kharde ajab bhat  
Kadam pha lekhav-ant-ish kár o khidmat  
Hame fauj dhurá be hathyár en  
Phitáí phoshindaghán yák o řawár en  
Hamodhá lashkar khosh o khushár en

A few servants of strange forms  
They step by calculation on duty and service  
They are an army bare and unarmed  
Moving at the voice and call of other men  
And there the army meet death and slaughter.

*Answer.*—The pieces at chess.

7. Nishtho díthom pha nadhar  
An shahr be sáh watan  
Ahání adh jang o jadal  
Nyámjí nawant yake dígar.

Sitting I saw with my sight  
A city and masterless country.  
There was war and strife between them  
And no umpire betwixt the one and the other.

*Answer.*—A game at chaupar.

8. Wiláyat thars-en, dost bar-karár-en  
Ravaghá gohár kisánaken taiyár-en  
Na rothí máth, bachh olá sawár-en  
Phitá nestení, phíruk haiyát-en

The country (in) fear, the mistress in comfort  
The little sister ready to start  
The mother will not move, the son is already mounted,  
The father does not exist, the grandfather is alive.

*Answer.*

The above contains a series of puns on the names of a family, partly, in Sindhí. The name of the country Dáḍar contains in the last syllable 'ḍar' the allusion to fear. The name of the mistress Begam, read as 'be-gham,' is the equivalent of 'bar-karár.' The sister's name is Hauri, the mother's Gauri, meaning in Sindhí light and heavy. The son's name Sháh-sawár, the fathers Gháibí, and the grandfather's Haiyát explain themselves.

9. Hudhá pakko kuzraten bandá pálitá  
 Rusúl Muhammad en ummatwálí  
 Hazáren bandagh yaken thálí  
 Chamodhá khas no roth horg o khálí  
 Hamodhá giptho harchí dí wártha-ish  
 Hamá whán zurtho loghá dí ártha-ish  
 Gudá jattho bhorenttho thálí ujártha-ish

After an invocation to God and the prophet—  
 There are a thousand men to one dish,  
 No one goes thence empty-handed  
 There they take and eat everything  
 They take up the dish and carry it home,  
 And having thrown it down and broken it they leave it bare.

*Answer.*—This contains a pun on thálí, which means the hedge round a threshing-floor as well as a dish. After every one has carried away the corn he wants, the hedge also is torn down and carried away.

10. Dánki sháhá parwaren khaptha man logh buná  
 Ní ki bandaghán razentha bísha pha husn o pharán  
 Wash hadith o khush lisán  
 Roth go phulen ambalán  
 As long as God had charge of him he lay at home ;  
 Now that men have constructed him he has become fresh and fair.  
 With sweet discourse and pleasant speech  
 He walks about with his fair companions.

*Answer.*—A man with a wooden leg.

11. Pyáláe phuren dítha májái  
 Nishthaghá lálo nestathí dáí  
 Pyáláe wártho lál shahíd bísha  
 Chonán ki kullen álimá dítha  
 I saw a cup in a certain place  
 A bright one sat down without an attendant  
 This ruby like one drank up the cup, and then died  
 So that all men saw it.

*Answer.*—The flame of an oil-lamp which goes out after having drunk up the oil.

12. Do gohárán dítha ambází  
 Ajab khush ant gwar ambází  
 Nainí suratá khamí  
 Yake khor digar chamí  
 I saw two sisters embracing  
 Very happy at the embrace  
 There is not the slightest difference in their appearance  
 One is blind and the other has eyes.

*Answer.*—The reflection in a mirror.

13. Phairí khákhítán pha gidhár  
 Man Bakri shahr gwara  
 Bolí athí washen jawár  
 Dastán gipthí nar-mazár.  
 Yesterday as I passed along the road  
 In the town of Bakkar  
 I heard a very sweet voice  
 But when I seized it, it was a fierce tiger.

*Answer.*—A snake.

14. *Proverbial sayings.*

Kahne litir o phíren zál  
 Warná sará sár-bár.  
 Old shoes and an old wife  
 Are the burden of a young man's life.

Savzen cho híthen, charpí cho meshí dumbaghán.  
 As green as young corn, as fat as long-tailed sheep.  
 This saying refers to the Gwar or wild pistachio (*Pistacia khinjuk*).

Khatán sokhtha áfá phúki wárh.  
 One burnt by hot milk will not drink even water without blowing on it.

This corresponds with the Hindustání proverb 'Dúdh ká jalyá chánchh hí píwat phúnk,' or the English. 'A burnt child dreads the fire.'

Málá sar-dai várá dosh.  
 Let the cattle go and milk the hedge.

This answers to 'Penny wise and pound foolish.'





## ERRATA.

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- Page 3, line 8, *read j̇ for j*
- " 5, " 38, " pronounced *for* pronounced.
- " 7, " 9, " *nyánwán for nyánwán.*
- " 7, " 40, " *rasída for rasída.*
- " 8, " 19, " *nadh̄ar for nadhra.*
- " 10, " 2, *add* and *jawahar after zik.*
- " 13, " 18, *read phalo for phale.*
- " 13, " 29, " *límú, a " límúa,*
- " 16, " 33, " *shákhá " shákhá.*
- " 17, " 8, " *marde " mardá.*
- " 24, " 18, " *kithán, thán for kithán thán.*
- " 25, " 35, " *biyár for riyár.*
- " 32, " 14, " *see it himself for see himself.*
- " 33, " 38, *transpose* { nowhere *hizhgarnen.*  
elsewhere *thíhandá.*
- " 37, " 25, *read* *welcome for welceme.*
- " 42, " 20, " *phádh-ágh for Pádh-ágh.*
- " 43, " 24, " *bilí for kilí.*
- " 44, " 7, " *amnám for annám.*
- " 44, " 10-14, " *án— " an—*
- " 46, " 16, " *leeward " lee-ward.*
- " 47, " 12, " *بáki báki " باقی báqí.*
- " 47, " 34, " *baterá " baterá.*
- " 49, " 5, " *baragh " beragh.*
- " 49, " 10, *dele* *P. burú, Skr. bhrú.*
- " 49, " 10, *after* *بروټ baroeth add* *بروټ barwán, s. the eye-brow.*  
*P. burú, Skr. bhrú.*
- " 54, " 13, *read* *panwar for panwar.*
- " 57, " 4, " *phashk " phashk.*
- " 64, " 21, *add* *cf. Pashto jowal after to chew.*
- " 66, " 23, *read* *oxen, mate for oxen mate.*
- " 66, " 27, *add* *Pashto after joru.*
- " 67, " 9, " *P. " world.*
- " 71, " 25, *read* *dágh for dágh.*
- " 72, " 33, " *tear " burst.*

- Page 74, line 12, ,, *dáragħ for dáragħ.*
- „ 85, „ 20, „ *sará sá „ sará sa.*
- „ 87, „ 32, „ *sumb „ samb.*
- „ 93, „ 13, „ *Maurorum for Mauroram.*
- „ 95, „ 13, „ *sixtieth „ sixth.*
- „ 98, „ 10, „ *khambar. Kambār for khambar—kambar.*
- „ 105, „ 13, „ *گواند for گواند*
- „ 105, „ 31, „ *giryán „ girgán.*
- „ 108, „ 21, *after گوانكه gwánkh insert گونچ gwánech, a camel driver.*
- „ 108, „ 83, *read گوزان for گوزان*
- „ 109, „ 26, „ *flesh „ flesh.*
- „ 110, „ 3, „ *گومان „ گومان*
- „ 110, „ 84, *after گیانچ giánch insert گیاف giyáf, fertile, extensive.*
- „ 111, „ 2, *read Salix for Salia.*
- „ 114, „ 24, „ *man „ mau.*
- „ 115, „ 16, „ *mán-deagh for man-deagh.*
- „ 115, „ 27, „ *máhkání „ mahkání.*
- „ 117, „ 21, „ *leap „ leap!*
- „ 119, „ 31, „ *mahisk „ mahisk.*
- „ 124, „ 30, „ *نیغا neghá „ نیگار neghár.*
- „ 124, „ 31, „ *nikah „ nekah.*
- „ 125, „ 8, „ *vakhtá „ vakhat.*
- „ 125, „ 16, „ *P. khwája „ P. khwaja.*
- „ 127, „ 6, *after وهان whán insert وهانكار whántkár, master, owner.*
- „ 127, „ 26, *read عباسي for عباي*
- „ 129, „ 33, *after هاليني haleni insert همار himár, tender, delicate, beautiful.*