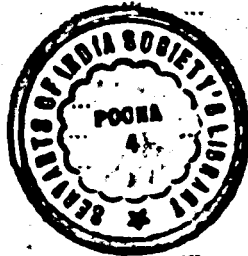


# CONTENTS.

## MEYWAR.

	Page.
General Topography .....	3
History .....	15
The Aristocracy .....	23
Official Classes .....	26
Population .....	27
General Administration .....	29
The Land .....	32
Trade .....	42
Communications .....	46
Fairs .....	43
Districts, Towns, Forts .....	44
APPENDIX—The Hill Tracts .....	53



## PARTABGARH.

General Topography .....	77
History .....	78
The Aristocracy .....	81
Official Classes .....	82
General Administration .....	86
Population .....	86
The Land .....	83
Trade .....	84
Districts, Towns, &c. .....	86

## SERICAPUR MOUNT ABE.

Geography .....	89
History .....	96
The Durbar .....	104
The Aristocracy .....	105
Official Classes .....	107
Population .....	86
General Administration .....	115
The Land .....	116
Trade .....	123
Districts, Towns, and Remarkable Places .....	124
APPENDIX .....	127

	MOUNT AEG.	Page.
Geography . . . . .	...	129
Population . . . . .	...	137
The Land . . . . .	...	142
Communications . . . . .	...	143
Fairs . . . . .	...	145
Temples and Shrines . . . . .	...	15
APPENDIX A . . . . .	...	151
"    B . . . . .	...	153
"    C . . . . .	...	153

ELWER

General Topography . . . . .	...	161
History . . . . .	...	167
The Durbar . . . . .	...	191
The Aristocracy . . . . .	...	193
Official Classes . . . . .	...	196
Population . . . . .	...	197
General Administration . . . . .	...	223
The Land . . . . .	...	236
Trade and Manufactures . . . . .	...	247
Communications . . . . .	...	253
Local Customs . . . . .	...	254
Fiscal Divisions, Towns, and Village . . . . .	...	255
APPENDIX I . . . . .	...	293
"    II . . . . .	...	299
"    III . . . . .	...	300
"    IV . . . . .	...	302
"    V . . . . .	...	309
"    VI . . . . .	...	317

---

GAZETTEER OF MEYWAR.

COMPILED BY

CAPTAIN C. E. YATE,

ASSISTANT POLITICAL AGENT, BANSWARA AND PARTABGARH.

---

## APPENDIX I.

### *The Geology of Ulwur.*

The State of Ulwur, situate a few miles to the east of the extended axis of the Arvali range, is occupied by ranges of hills; the highest of which rise to an elevation of nearly 2,400 feet above the level of the sea, and about 1,600 feet above the general level of the surrounding country, formed of wide sandy alluvial plains. The direction of the ranges varies considerably; the most general is north and south to north-east and south-west, but in places the ridge describes a complete semi-circle. In the east of the meridian of the town of Ulwur, there are only narrow ridges, varying from 200 yards to a mile in width; but to the west the ranges form a large group of hills, in places upwards of twenty miles across, intersected by narrow valleys having the same general direction as the hills themselves; both, in fact, following the strike of the rocks.

A considerable variety of rocks are exposed in the hills. The principal are:—

Quartzites, varying in texture from granitic sandstone to a fine compact quartzite.

Bands of hornblēndic rock.

Limestones; some of them in the crystalline state and full of hornblēndic minerals.

Hornstone breccia.

Argillaceous slates.

Schists, containing andalusite, staurotide, garnets, &c.

Granitic gneiss.

With the exception of the gneiss, the whole belong to one series of rocks which has been called the Arvali series.

Very little of the gneiss is seen. It is confined to some isolated hillocks on the plain near Reni, and some outcrops at the base of the surrounding ridge. Between Tatra and

Gneiss.

Parli a coarse porphyritic granitic gneiss containing tourmaline is well seen, capped unconformably by the quartzites of the Arvali series. The hills round Harsaura are formed of an obscurely bedded gneiss; but it is doubtful to which series it belongs, the bottom beds of the Arvali series being sometimes gneissose; and in these hills there are no other rocks in contact to determine the point.

The rocks of this series, in the Ulwur hills, are greatly contorted and twisted. Their most general strike varies from north and south to north-east and south-west, but in places they describe nearly three-fourths of a circle. Many repetitions of the same rocks are met with, and the soft and hard rocks folded up together; the latter remaining as hills upwards of 1,000 feet above the plain, while the former have been partially removed by denudation and the valleys formed in them. The dip is always high, seldom at a less angle than 70 degrees.

The Arvali series.

The series has been divided into the following groups, in descending order,—

The Mándan group.

The Kushálgarh group.

The Ajabgarh group,

The Ulwur group.

The Raialo group.

The bottom group, the *Raialo*, is exposed in the three bays near the southern boundary of the State in which the towns of Baswa, Baldeogarh and Raialo are situated. It is also seen a few miles further north near Jhirri. In the Baswa bay the group is very poorly represented. It consists of a narrow ridge of quartzites just north of Todi, and a band of crystalline white marble dipping under the mass of quartzites of the Ulwur group.

In the Baldeogarh bay, a broken ridge of quartzites extends from near the town of Bhangarh dipping north; under the marble of which there is a large spread extending about three miles north of the ridge. The quartzite is compact in texture and grey in colour, and regularly bedded. The marble varies considerably both in colour and texture, but white is the prevailing colour. A course of very finely crystalline marble can be obtained. Hornblendic minerals, such as tremolites, actinolite and schorl, are very abundant in it. Another large spread of the marble occurs a little farther north at Kho. The greater part of the Raialo spread is in Jaipur, but the northern portion of it extends into the Ulwur territory. The relation of the Raialo quartzite to the gneiss upon which it rests cannot be determined, as no junction sections are exposed; there is a large spread of gneiss south of Raialo, but the junction is covered by *débris*. At Baldeogarh, the alluvium extends up to the southern side of the ridge of quartzite, covering the rocks upon which it rests. In the Todi section also, the alluvium extends up to the ridge, but gneiss is exposed in a well a few yards from it on the southern side. On both sides of these three bays the Raialo group is overlapped by the quartzites of the Ulwur group, which then rests upon the gneiss.

*Ulwur group*.—This is the most prominent group of the series, as not only are the highest, but the greater part of the hills formed of it. The Ulwur part is built on it, and the high hills on both sides of the Narainpura valley are formed of it. In fact, nearly the whole of the group of hills extending from Mandáwar to Rájgarh on the east and to Partágarh on the west, as well as the Tijára ridge, are formed of it. The most important member of this group is the quartzites, of which there is a great variety. The greater part of it is regularly bedded, compact, a light-grey in colour, but in places it is coarse in texture, and even conglomeratic. Ripple-marking and sun-cracks are very common in the quartzites, and are particularly well seen in the fort hill. An arkose rock is of frequent occurrence at the base of the quartzites, where the group rests upon the gneiss. Thin bands of schists are sometimes found interbedded with the quartzites, and bands of hornblende are common, particularly near the southern boundary of the State near Tahla and Kater.

In an east and west section about the latitude of Ajabgarh, the quartzites are repeated at least a dozen times in a series of anticlinals and synclinals in which the rocks both above and below them are exposed.

As I have before said, the Ulwur group overlaps the Raialo and rests upon the gneiss. Sections of the junction of the two series are scarce, as it generally takes place near the base of a high scarp and is mostly covered by *débris*. Perhaps the best occurs under the Tatra ridge south of the road leading to Tatra. The granitic gneiss occurs at the base of the ridge, and upon this rests a regularly bedded coarse quartzite, dipping at a high angle to the west.

North of the road some additional beds come in between the granitic gneiss and the quartzites. Resting immediately upon the granitic gneiss is a band of conglomerate about two feet thick, composed principally of rolled pebbles of quartz; upon this there is a considerable thickness of an arkose rock, the materials of which were apparently derived from the gneiss. This passes up gradually into the ordinary quartzites of the series. On the eastern side of the bay south of Garhi a very similar section is exposed.

Near Bhadokar, there is another junction in which the gneiss, composed principally of white felspar, very little quartz, and plates of mica, forms a band about 12 feet across surrounded by the quartzites. In a little hill close by, near the base of the quartzites, there are some bands 1 foot to 1 foot 6 inches thick of detrital mica 2 or 3 inches across, presumably derived from the gneiss. In places the arkose rocks have been remetamorphosed to such an extent that, but for their connection with the gneiss below or the quartzites above, it would be difficult to tell them from the true gneiss. Thus the hills round Harsaura and Samda are formed of obscurely bedded gneiss, but from their being isolated from the plain (the only rock near is the ridge of quartzite at Makánpura about half a mile south), I am unable to say to which series they belong. The arkose rocks are well developed north-west of the town of Ulwur at Dadikar. They there form a circle, filled with alluviums, blown sand, &c., covering the rocks below; the arkose rocks at base, particularly at the south-west corner, are highly crystalline, but in getting up the hill they pass gradually into the quartzites. Hills of the arkose rocks passing into the quartzites are met with at Palpur, Bágheri, Khairthal and Palari.

Where the Ulwur group rests upon the Raialo as at Dariba, a thin band of black slates occurs below the quartzites. Similar black slates run through the series and are largely developed in the Ajabgarh group. The Dariba mines are in these black slates. In places the quartzites become very micaceous and have a schistose structure. This is the case near Rájgarh and Kirwari. It appears to be quite a local feature, and not constant in the series. Near the base of the quartzites, several bands of hornblende are intercalated with them. Some of these bands are of considerable thickness and form hills several hundred feet high. Sometimes six or seven more of these bands are seen alternating with bands of quartzites. These hornblende bands are very variable in the section; near Kánkwari and south-east of Partágarh they are very numerous and attain to a great thickness. At Dadikar and Hamirpur they are represented by two or three irregular bands, and in some sections, as near Rájgarh, where the whole of the Ulwur group is exposed, the hornblende bands are entirely absent.

The thickness of the Ulwur group varies in different sections; thus, near Ulwur and in the hills west of Rájgarh, an enormous thickness of quartzites is exposed, but towards the southern boundary of the State, as at the southern end of the Tatra ridge, or where the railway cuts through it west of Mandáwar, the thickness is reduced to a few hundred feet.

*Ajabgarh.*—This group contains a considerable thickness and a great variety of rocks, the principal of which are limestones, quartzite, hornstone breccia, and slates. The rocks of this group occupy the synclinal troughs formed by the quartzites of the Ulwur group, and in some of the ridges east of the town of Ulwur. These valleys are the Delawás, Kushálgarh, Ajabgarh, and Narainpur.

A thick band of limestone, the lowest member of this group (it has been named the Kushálgarh limestone, as it is well developed in that valley), rests

upon the quartzites of the Ulwur group. The hornstone breccia is generally found on the top of the limestone, but is frequently absent. Above this, there is a band of quartzite upon which rests a considerable thickness of black slates capped by a quartzite (the Berla quartzite). Up to this, there is a continuous section of the Ajabgarh group in the valleys; but the rocks above, being only exposed in the isolated ridges east of Ulwur, are consequently difficult to place in the section. The ridge extending south from the Motidungri hill (close to Ulwur), composed of alternations of calcareous and quartzite bands, is clearly higher in the section than the Barla quartzite, and the Goleta ridge, about six miles east of Ulwur, probably still higher in the section.

At the head of the Delawás valley the rocks are much contorted, and the Kushálgarh limestone is repeated in the two little valleys east of the Serawás. Lower down the valley at Rosra and Delawás, the limestone is again seen with intercalated thin bands of schists and quartzites. Near Siliserh (four miles south-west of Ulwur) the hornstone breccia above the limestone is exposed. The hornstone breccia is, in some places, obscurely bedded, but it generally occurs in great masses devoid of any structure. It sometimes contains large pebbles of quartzites; this is the case at the southern end of the Siliserh lake, where it is largely developed. There is a large spread of the limestone in the Kushálgarh valley. It covers the whole of the bottom of the valley, nearly two miles wide, and extends from two or three miles east of Kushálgarh to the head of the valley at Talbrich; beyond this point it passes round the quartzites into the Narainpur valley. In the southern branch of the valley it extends to near Indor, where it becomes covered by the higher rocks of the group.

A thicker section of the Ajabgarh group is exposed in the Ajabgarh valley. The Kushálgarh limestone, resting upon the Ulwur quartzites, is seen on both sides, dipping towards the centre of the valley, though not so continuously on the west as on the east side. The hornstone breccia and the quartzites above appear to be very irregularly developed in this valley: the breccia is nearly continuous on the west side, and there is but little of the quartzites, but, on the east side, particularly at the northern end, a considerable thickness of the quartzite and but little of breccia is seen.

The whole of the centre of the valley is occupied by the black slates. These rocks extended into the Narainpur valley as far as Ghazi-ka-Thana, but north of that there are only a few small hills of the slates in the centre, and some of the limestone and breccia on either side of the valley. The remainder is covered by alluvium.

The eastern edge of the Ulwur quartzites at Ulwur and for a long way south dip at an angle of about 80 degrees to the east, under a broken section of the Ajabgarh group, here represented by a few hillocks of the Kushálgarh limestone and breccia, and the overlying quartzites. The slates are entirely covered by the alluvium, which extends to the Motidungri ridge, nearly the highest member of the group. Of the ridges on the eastern side of the State many of them are formed of the rocks of the Ajabgarh group. Thus in the hills forming a broken circle, a few miles east of Ulwur; in the centre there is a hill of the Ulwur quartzites dipping in all directions towards the edge of the circle, and under the encircling ridge of the Ajabgarh rocks, consisting, on the eastern side, of the black slates and quartzites in which crystals of Andalusite are abundant. The rocks on the western side are higher in the section. At Loharwari there is a black limestone, probably the same as that in the

Moti Dungri ridge, and above a considerable thickness of a rough blue quartzite largely quarried for grinding-stones. Between the centre hill and the ridge are some hillocks formed of the Kushálgarh limestone and breccia.

The four ridges east of Málá Khera, something in the shape of an inverted W, form a double anticlinal in which the Ajabgarh rocks are well represented. In the centre of the western there is a large hill of the Ulwur quartzites dipping under the Kushálgarh limestone and breccia on three sides, *viz.*, north, east, and west, above which come the black slates, with a band of talcose limestone near the base, and covered by the Berla quartzite of which the greater portion of the four ridges are formed. This quartzite, or rather quartzite sandstone—for it is less altered than most of the series—requires notice, as it makes a splendid building-stone, and is largely quarried for that purpose; it is pearly grey in colour and contains numerous species of a black mineral, probably hornblende.

In the eastern anticlinal a similar section is exposed, with the exception of the Ulwur quartzites in the centre.

The western limit of the double anticlinal extends in a northerly direction as far as Nowjanwa, where the Ulwur quartzites of the Tijára ridge dip under it, and in a south-westerly direction some miles beyond the Deoti lake in a synclinal trough of the Ulwur quartzites.

*Mándan.*—The rocks of this group form the ridges in the north-west corner of the State, principally on the left bank of the Sabi river at Mándan, Bárod and Tasing, as well as the double ridge at Mandáwar, thirty miles to the south-east of Ulwur. The group consists of schists abounding in crystals of andalusite, staurotide, garnets and atinolite, and some thin bands of quartzites interbedded with them. There is some doubt as to the position of these rocks in the series, or even if they belong to the series at all. This doubt arises from their occurring in isolated ridges disconnected from any known rock of the series. Near Bárod, however, there is a long hill formed of the Kushálgarh limestone and breccia between two ridges of the schists, and separated from them about half a mile of alluvium.

Again, at the south-east corner of the State, at Mandáwar, the double ridge of Mándan schists occurs between two ridges of Ulwur quartzites converging towards the south, and both dipping towards the schists, apparently forming a synclinal in which the schists lie. Mineralogically there is little difference between the Mándan rocks and those of the known Arvali series; thus the Ajabgarh schists containing andalusite, &c., in the hills east of Ulwur, as well as the quartzites, are very similar to those of the Mándan group. So that it seems probable that the Mándan rocks readily belong to the series, and if so, is the highest group here represented.

The position of the Arvali series in the scale of the Indian geology is probably between the Gwalior and the Vindhyan series. There can be little doubt that they are older than the Vindhyan, as in Karauli there are some ridges of the Arvali rocks upon which the Kaimur sandstone, the lowest member of the upper Vindhyan series, rests unconformably. The evidence of their being younger than the Gwaliors is not so clear. There is no evidence upon this point in the Ulwur territory, as the only two series of rocks there exposed are the Arvali and the gneiss. In a ridge near Hindaun the banded red jasper rocks of the Gwalior series are exposed dipping at a high angle to the north. On the north side are some hills of quartzite, sandstone and limestone resting unconformably on the Gwaliors. These are probably outliers of the Arvalis, the rocks of which series cover a large area in the



Biána hills, a few miles to the north. It is possible, however, they belong to the Vindhyan series, which occur a few miles to the south. It is some years since I saw the section, and at that time I had hardly seen the Arvali series, and not in a position to determine the identification with them. Another section bearing upon the question is found near Tunja in Jaipur territory, where large pebbles of a rock very similar to the Gwaliors are found in a conglomerate of the Arvali series.

The useful minerals in Ulwur are more numerous than abundant.

Economic Geology. They consist of—

Copper pyrites,	Rutile,
Argentiferous galena,	Manganese, and
Nickel,	Iron.

Several old copper workings exist in Ulwur from which through a long series of years a considerable amount of ore has been extracted; but at the present time they are almost entirely abandoned. The natives say that some of the richest deposits of ore had to be abandoned in consequence of the influx of water. In other cases the richest mines fell together, burying a number of miners, and have not since been re-opened.

The following is a list of the localities in which copper-ore has been worked, or traces of it observed:—

Dariba.	Tasing.
In the ridge to the west.	Kushálgarh.
Indawás.	Bághani.
Bhangarh.	Partábgarh.

The most important of these is at Dariba. The mine is situated in a sharp anticlinal bend in the black slates and quartzites, the lowest beds of the Ulwur group. An adit level is driven into the hill through the black slates, in a southerly direction, parallel to the strike of the rocks. I could see no trace of a lode, but the ore appears to be irregularly disseminated through the black slates, a few specks and stains only being seen in the quartzites. Where richer nests of the ore were met with, the miners have extended their workings a short distance above and below the level. The miners declare that a rich nest of ore occurs in a pit sunk below the level near its southern extremity, but it had to be abandoned on account of the water. The present drift was, I believe, begun under the instructions of Captain Impey, formerly Political Agent at Ulwur, to drain the pits sunk by the natives in the hillside. The copper occurs in the form of copper pyrites, mixed with arsenical iron. Small quantities of carbonate of copper were observed in the mine, probably the result of the decomposition of the sulphur. The mine is now nearly abandoned, and but little ore is to be seen. I had some difficulty in finding a bit the size of a nut. I found traces of copper in some black slates on the same geological horizon in the ridge a short distance west of Dariba. Near Indawás there is a long open cutting from 20 to 30 feet deep, from which copper-ore has been extracted, but the workings are now full of water. About a mile from these workings some miners are engaged in sinking a small pit in Kushálgarh limestone, from which they get a little ore. The Bhangarh workings consist of two or three small pits now fallen together. I found traces of copper in the schist hills near Tasing.

The workings of Kushálgarh, Bághani and Partábgarh have been abandoned for many years. The natives say that at the two latter places the workings

were very extensive, and that the workings fell together suddenly, burying a large number of men.

A few years since, a small deposit of silver lead ore was discovered in the

Galena.

Kushálgarh limestone near Gudha, and a pit was sunk in it; but, after working for a short time,

the ore died out in every direction.

Mr. Mallet discovered some rutile (titanic acid) in some small quartz

Rutile.

veins in the Moti Dungri ridge, a short distance south of Ulwur.

Iron in large quantities occurs in two places near the base of the Arvali series, one near Rájgarh and the other near

Iron and manganese.

Bhangarh. They supply the iron to a large number

of furnaces in the State. Judging from the workings, an immense quantity of iron must have been produced by these mines. The excavations are several hundred yards long, and in places twenty or thirty wide. These excavations appeared to be at an angle to the strike of the rocks; but the rocks near are so disturbed, and the junctions covered by *debris*, that I was not able to determine the point. The following is an analysis of the ore from Bhangarh:—

A mixture of limonite, magnetite and oxide of manganese contains

59.6 per cent. of iron, and

12 „ of manganese.

When making inquiries for the mineral “zaipurite,” a mineral of cobalt

Nickel.

found in the Arvali series at the Khetri mines

in Shekawáti, I was shown a bit of iron, and the ore from which it had been produced. The iron was used for cannon-balls, which flew into a number of fragments when fired. The ore came from the Bhángarh mine. On analysis, both the iron and the ore were found to contain nickel, in the latter, however, only a trace. I tried to find the ore *in situ*, but was not successful. I was shown the pit from which it had been taken, but it had fallen together.

Building materials, some of a very superior quality, are abundant in the Ulwur hills.

Limestone, capable of making good lime, exists in all parts of the State. The ordinary quartzite is a useful stone for rough buildings, walls, &c., but the berla quartzite makes an excellent building-stone. It is pearly grey in colour, very durable, not difficult to work, and easily quarried. It is largely quarried at Berla, Doroli, Bharkhol, and quarries of it could be opened in any part of the four ridges east of Málá Khera. A large part of the Raja's private station at Ulwur is built of this stone.

Schistose quartzites used for roofing, flags, &c., are largely quarried near Rájgarh, Kirwári and Mándan. At the Rájgarh quarries I have seen slabs of this rock nearly 20 feet long and 2 feet wide. The Mándan rock produces large square thin slabs. The Ajabgarh slates have been used for roofing most of the stations of the railway. It is not quarried, that I know of, in Ulwur, but some of the hills in the Ajabgarh valley would, I think, produce equally good slates. The talcose limestone at the base of the black slates is used for ornamental purposes in the form of carved doorposts, &c. It is a soft stone and easily carved, but I do not think it can be very durable.

The Raialo group produces a capital marble. The Taj at Agra is, I

Marble.

believe, built of the marble from this band. It is quarried at Jhirri, and the natives there are still

very clever in making "jali," or perforated screens. Coloured marbles can be had near Kho and Baldeogarh, and black marble from the Moti Dungri ridge. Good millstones are made from the blue quartzites of the Goleta ridge.

C. A. HACKET.

## APPENDIX II.

*Trees common in the hills and valleys of Ulwur.*

- Khair (*Acacia catechu*)—Yields ebony.  
 Khairi—Yields a gum; the implement called *musal* is made of its wood.  
 Kadhu (*Stercularia urens*)—Yields Katira gum.  
 Siali or Chaparn ( ) (*Nyctanthes arbor-tristis*)—Used for baskets, and the or Hársingar: } flowers are offered in temples.  
 Kirna (*Wrightia tinctoria*)—Long pods yielding juice, put in milk to thicken it. Sword-scabbards made from wood.  
 Kariála or Amaltás (*Cassia fistula*).  
 Garjen—A light pretty wood, sometimes used for furniture.  
 Banása.  
 Dása—Used in hedges.  
 Átan or Zarkher—Its fruit eaten by poor.  
 Kikar (*Acacia arabica*)—Another name for bábul.  
 Kombher—Sárangís (a musical instrument), &c., made from it.  
 Áonla (*Phyllanthus emblica*).  
 Dolia—Shrub, with alternate spicate shoots, bearing small ovate alternate leaves.  
 Bahera.  
 Harh (medicinal).  
 Tendú (*Diospyros melanoxylon*)—Furnishes ebony.  
 Chonkar or Khejra (*Prosopis spicigera*).  
 Gajrend—A fig; leaves like "bargat," and with similar habits. It is equal to "binola" as a food for cattle.  
 Simal (*Bombax*)—Cotton-tree.—Monkeys eat the flowers before they open; "músla" (as roots are called) much used in medicine.  
 Ún—A large tree.  
 Hingot (*Balanites Roxburghii*).  
 Gúlar (*Ficus virgata*).  
 Ganger, the chabeni of Karauli (*Grewia populifolia*)—Leaves alternate; something like young ilex. Has a drupe which tastes like a hip; makes good walking-sticks.  
 Jáman (*Syzygium jambolanum*).  
 Aila—Root and bark and fruit used in medicine.  
 Arla—Has a very acid seed in a pod. (Low tree.)  
 Kala Kúra. ( Do. )  
 Kadam (*Anthocephalus* or *Nauclea kadamba*).  
 Jiwapot—Rosaries made from its berries.  
 Ber (*Zizyphus hortensia*).  
 Pápri (*Pongamia glabra* [?]).  
 Gugal (*Balsamodendron mukul*)—Furnishes gum (bdellium or myrrh), offered at "dhúp" to Thákur,—i.e., at 9 A.M. to Sri Krishan.  
 Jhál—Green-branched, prickly.

- Moria or } Large-leaved handsome shrub, in damp valley.  
 Umra. }  
 Pappar. } Bushes.  
 Kadam. }  
 Kákond—A tree.  
 Jinger—Small tree, like Kachinar.  
 Gular—Handsome large-leaved shrub.  
 Komber—Large pipal-shaped leaves; wood excellent for furniture.

*Trees common in the plains.*

Khejra.	Jhál ( <i>Salvadora</i> ).
Jent ( <i>Sesbania</i> ).	Farash (tamarisk).
Khair.	Sisam ( <i>Dalbergia</i> ).
Nim ( <i>Melia indica</i> ).	Rohira ( <i>Tecoma</i> ).
Kikar ( <i>Acacia arabica</i> )—Very numerous.	Pilú ( <i>Salvadora</i> ).
Pipal—Fig.	Ám (mango).
Bargat—Fig.	Imli (tamarind).
	Senjna (moringa).

Ber (*Zizyphus jujuba*).

## APPENDIX III.

*Wild Animals.*

- Sher or náhar (tiger).  
 Tendua (large panther)—Believed by natives to be a cross between the panther and tigress.  
 Baghera (smaller panther).  
 Liali or bediao (wolf).  
 Jarak (hyæna), on which *dákans*, or witches, are said to ride. It is said one was caught at Ulwur with nose bored for strings.  
 Ghantali (a small deer shot near water in hot weather).  
 Sambar.  
 Roz (female nilgái).  
 Nil (male nilgái).  
 Haran (antelope).  
 Chikára (ravine-deer).  
 Suar (pig). When twelve years old believed invulnerable to bullets.  
 Khargosh (common hare).  
 Dhim khargosh (small kind of hare).  
 Seh (porcupine). It is said that if a porcupine-quill be stuck in a door, the household will quarrel till it is removed.  
 Siál or Gádra (jackal). Said to have in its head what is called a siál singhi: if a person keeps this about him he is invulnerable.  
 Lankti or Phokri (fox). If it barks in the months Kártik, Mangsar, Pos and Mágh there will be rain in Asárh, Sáwan, Bhádon, Kuwar.  
 This animal is much observed for omens.  
 Bijú (civet-cat). Badger according to Jerdon.  
 Búch (badger).  
 Mashak bilái (wild-cat).  
 Sála (ant-eater).  
 Jal mámsa (otter).

- Siyah gosh (lynx).  
 Newal (mongoose).  
 Jatkar (mongoose, large kind).  
 Ghora Go (a lizard about two feet long, from the skin of which shoes scabbard-covering, &c., are made, especially by the poor).  
 Gadar biláo (wild-cat).  
 Langúr (monkey). Said to love its young to such an extent that it preserves and fondles their bodies for six months after death.  
 Chamgidar (flying-foxes). Mischievous in gardens. They hang in great numbers upon the trees near the city-palace.

*Birds.*

- Bán murgbi (spurred partridges).  
 Titar (partridges).  
 Kála titar (black partridges).  
 Lawa (a species of quail, said to be not a bird of passage).  
 Gilji lawa (button quail).  
 Batér (the common quail, which is a bird of passage).  
 Gágar batér (a quail).  
 Mor (peacock).  
 Sáfed mor (white peacock; some towards Hajipur and Hamirpur).  
 Bat bal (golden plover or grouse).  
 Kulang (never seen on ground. Caught with hawks. The common crate, not what Europeans call *coolan*\*).  
 Bátia (a waterfowl).  
 Kharkara (a bird of passage).  
 Kúrdántli (curlew).  
 Kucha.  
 Hariyál (green pigeon).  
 Tukdar (bird of passage).  
 Charáj (comes in rains).  
 Kurbán or barsali.  
 Tota laibri (parrot).  
 Tota túyam (do.)  
 Bulbul.  
 Kanara.  
 Baiya (weaver-bird).  
 Ulú (owl, called Rát-ka-Raja).  
 Kochri (night-bird).  
 Malari.  
 Kchil.  
 P. áya.  
 Siyam chiri.  
 Doban chiri.  
 Kanjan (said to have a feather in its head which renders one who gets it invisible, and in the month of Sáwan it is itself invisible).  
 Lanklát or } (said to pick bits of meat out of a tiger's mouth when it is  
 Bandáni } asleep).  
 Tintori (said to chirp above a tiger as the latter moves along).

## APPENDIX IV.

*Narrative of the Battle of Laswari.*

After the battle of Delhi, in which Lord Lake defeated the Mabrattas under M. Louis Bonquin, there still remained fifteen regular battalions, which Sindia had sent from the Dekhan, under the command of M. Dudermaique. The latter surrendered himself to the British force at Muttra, but his battalions remained intact, and were, indeed, augmented by two others, which had escaped from Delhi. This powerful force made no attempt to prevent the capture of Agra by Lord Lake, its object being to recover Delhi, the recapture of which was regarded by Sindia as of the first importance to his prestige. Lord Lake marched westward from Agra on October 27th, 1803, against this force, which was known to be on the borders of Mewát. His army consisted of the 8th, 27th and 29th Dragoons, the 1st, 2nd, 3rd, 4th and 6th Native Cavalry, His Majesty's 76th Foot, the 2nd battalion of the 5th, 9th, 12th and 15th Native Infantry, the 1st battalion of the 12th and 15th Native Infantry, six companies of the 16th Native Infantry, one company of the 1st battalion of the 11th Native Infantry.

In the afternoon of the 29th October a heavy cannonade was heard, which proved to be occasioned by the bombardment of Katumbar, which place the enemy entirely destroyed. The next day the army effected a forced march of twenty miles, leaving the heavy guns and baggage at Fatehpur, under the protection of two battalions of native infantry belonging to the 4th brigade. Exertions were made in order to accelerate our advance upon the enemy; and, accordingly, on the 31st, we encamped at a small distance from the ground which they had occupied near Katumbar the same morning. In consequence of finding them thus near, the commander-in-chief resolved upon making an immediate effort to come up with them at the head of the cavalry, with whom he might keep them employed, and endeavour to seize their guns and baggage, till, by the junction of the British infantry, who had orders to follow at 3 in the morning, full advantage might be taken of the confusion produced by his attack. In pursuance of this determination, General Lake set out with the whole of the cavalry the same night at 11 o'clock; and after a march of twenty-five miles, in little more than six hours, came up with the object of his pursuit about sunrise on the morning of the 1st November.

The enemy's force consisted of 17 regular battalions of infantry, to the number of about 9,000 men, 72 guns, and 4,000 to 5,000 cavalry. On our approach it appeared that the enemy were upon the retreat, and that in such confusion as to induce the British general to make an instant attack upon them, without waiting for the arrival of the infantry. The enemy, on their part, were not wanting in the adoption of measures for their defence and the annoyance of our troops. With this view, by cutting the embankment\* across the nullah, the road was rendered extremely difficult for the passage of cavalry—a circumstance which, while it impeded our progress, gave the enemy an opportunity of choosing an advantageous position, their right being in front of the village of Laswari, and thrown back upon a rivulet, the banks of which were so very steep as to be extremely difficult of access, while their left was upon the village of Mohaulpur, and their entire front, which lay concealed from view by high grass, was defended by a most formidable line of artillery. In addition

\* The Hazári Dam.

to these securities of force and situation, the enemy derived an advantage of no small moment from the immense cloud of dust raised by the movement of the cavalry, which so completely obscured the change that had taken place in their position, as to render it impossible for General Lake to avail himself of the circumstance, or to be guided by his observations, where so many perplexities contributed to produce embarrassment. These obstacles, however, which would have deterred an ordinary mind from attempting a desirable object till the prospect of success became more decided, had no other effect on the commander-in-chief than that of leading him to the prompt execution of his original plan, and confirming his resolution of preventing the retreat of the enemy, and of securing the possession of their artillery. Thus fixed in his determination, he ordered the advanced guard, with the 1st brigade of cavalry, to move upon the point where the enemy had been previously seen in motion, but which was, in fact, now become the left of their new position. This plan of attack was directed to be followed up by the remainder of the cavalry in succession, as fast as they could form, immediately on crossing the rivulet.

The obedience of the troops and the alacrity of their officers corresponded with the energy and daring spirit of their leader, as appeared in the charge made by the advanced guard, under Major Griffiths, of His Majesty's 29th Regiment of Dragoons, and aide-de-camp to the Governor-General, as also in that of the 1st brigade, conducted by Colonel T. P. Vandeleur, of His Majesty's 8th Regiment of Dragoons. With so much impetuosity were these charges made that the enemy's line was forced, the cavalry penetrated into the village, and several guns were taken; but the advantage was dearly purchased by the loss of the brave Colonel Vandeleur, who was mortally wounded. The attacks made by the other brigades of cavalry were conducted with the same spirit and success. The 3rd brigade, under the command of Colonel Macan, which was next in succession, consisting of the 29th Regiment of Dragoons and the 4th Regiment of Native Cavalry, attracted particular notice on this occasion. Having received orders to turn the right flank of the enemy, this brigade came up with them at a gallop across the nulla under a heavy fire from their batteries; then forming instantly into line, and moving on steadily, charged the foe in the face of a tremendous fire from all their artillery and musketry. To the former were fastened chains running from one battery to another, for the purpose of impeding the progress of assailants; while, to make the execution more deadly, the enemy reserved their fire till our cavalry came within the distance of 20 yards of the muzzles of the guns, which, being concealed by the high grass jungle, became perceptible only when a frightful discharge of grape and double-headed shot mowed down whole divisions, as the sweeping storm of hail levels the growing crop of grain to the earth. But notwithstanding the shock of this iron tempest, and the awful carnage produced by it in our ranks, nothing could repress the ardour of the cavalry, whose velocity overcame every resistance. Having penetrated through the enemy's line, they immediately formed again, and charged backwards and forwards three times, with surprising order and effect, amidst the continued roar of cannon and an incessant shower of grape and chain shot.

The cavalry had extraordinary difficulties to overcome, for no sooner had they charged through than the artillerymen of the enemy, who, to save themselves, had taken shelter under their guns, when our men had passed, reloaded them, and fired upon our rear. Their battalions, which were drawn up behind

a deep entrenchment covered by hackeries, carts, bullocks, and other cumbrous baggage, kept up a galling fire with musketry, which did great execution.

On their side also numbers fell in this severe struggle; and though all the guns immediately opposed to our troops were virtually taken and in our possession, yet, for the want of draught bullocks and infantry to secure what we had so dearly earned, only two out of the number taken could be brought away. Though this severe conflict was distinguished by all the characteristics of British valour, in the resolute firmness of the cavalry to carry their object, such was the inequality of the force engaged in the combat, and the destructive effects of the fire from the guns still remaining in the hands of the enemy, that it was deemed prudent to recall the brigade out of their reach; and, accordingly, just as the brave Colonel Macan was in the act of leading on his men for the fourth time to the charge, orders were received to rejoin the main body.

While the perilous contest was thus raging, the British infantry was approaching. It arrived on the banks of the rivulet by noon. After a fatiguing march of twenty-five miles under a burning sun, the infantry required some rest and refreshment, which was ordered. Meanwhile, such was the effect of their presence upon the enemy, that a message was sent to the commander-in-chief with an offer of surrendering all their guns upon certain conditions, to which a favourable answer was returned. An hour was granted for the fulfilment of the conditions, but the British General continued his preparations for an attack should the enemy prove false.

The infantry were formed into two columns on the left, the first—composed of the right wing, under the command of Major-General Ware—being appointed to attack the village of Mohaulpur, and to turn the right flank of the enemy, which ever since the morning had been thrown back, thereby concentrating their entire force round that place, which was strongly fortified. Their infantry, formed into two lines, were defended in front by a numerous train of artillery, having the cavalry on their right and their left appuyed on Mohaulpur. The second column of the British infantry, forming the left wing, under Major-General St. John, was directed to support the first column, while the cavalry drew the attention of the enemy to the hostile demonstration in front which threatened their left. The 3rd brigade of cavalry, under Colonel Macan, received instructions to support the infantry; while Lieutenant-Colonel John Vandeleur, with the 2nd brigade, was detached to the right of our line, in order, by watching the motions of the enemy, to take advantage of any confusion that might occur among them, and in case of a retreat to attack them with vigour. The reserve—composed of the 1st brigade, under Lieutenant-Colonel Gordon, who had succeeded to the command on the death of Colonel T. P. Vandeleur—was formed between the 2nd and 3rd brigades; while as many field-pieces as could be brought up, together with the galloper guns attached to the cavalry, formed four distinct batteries for the support of the operations of the infantry.

Such was the disposition of our force, and the plan of attack drawn up in the interval allowed for the performance of the conditions of surrender proposed by the enemy; on whose failure to fulfil what they had promised, the British infantry proceeded, marching along the banks of the rivulet under cover of the high grass, and amidst the broken ground that for some time concealed their advance. As soon, however, as they were discerned and it was ascertained that their object was to turn the flank of the enemy, the latter instantly threw back their right wing, under cover of heavy discharges of artillery against the head of our column, which suffered



considerably. At the same time, our four batteries began to play with no less vigour; and the whole continued to advance during this tremendous cannonade, in spite of the vast superiority both in number and weight of metal of the enemy's artillery, which was uncommonly well served, showers of grape being poured upon the assailants from large mortars, as well as from guns of heavy calibre. The effect of the fire, which was terrible in the extreme, was felt with peculiar severity by the 76th Regiment, which fine body, by leading the attack, as usual became the direct object of destruction. So great, indeed, was the loss of this corps, that the commander-in-chief deemed it advisable to hasten the attack with that regiment and those of the native infantry, consisting of the 2nd battalion of the 12th and five companies of the 16th, which had closed to the front, and to wait till the remainder of the column should be formed, whose advance had been much delayed by unavoidable impediments.

When this resolution was adopted, and the gallant band came within reach of the enemy's canister-shot, a most galling fire was poured on them from the whole train of the enemy's artillery. At this moment the enemy's cavalry attempted to charge, but the infantry effectually checked it, and it recoiled, but with the manifest intention of trying another attack. So General Lake judged it prudent to order an attack to be made upon them in turn from the British cavalry, which service, being entrusted to His Majesty's 29th Regiment of Dragoons, was performed to the entire satisfaction of the commander-in-chief.

This regiment, which had previously moved along the banks of the rivulet, in order to support the main attack, had halted for that purpose in a hollow immediately behind our battery, the fire from which occasioned so violent a one in return as to render their situation exceedingly trying; for, though partly concealed from the view of the enemy, the shot rolled and ploughed up the ground in every direction among our ranks, with the most mischievous effect. While in this position, which was rendered more painful by the necessity of waiting in a state of passive endurance, the gallant Major Griffiths was killed, on whose loss the command devolved upon Captain Wade. At length, however, the welcome order arrived for the regiment to charge; which injunction was no sooner given than it was as promptly obeyed, and the troops galloped out of the narrow passage, where they had been so perilously posted, by files, as the ground would not admit of a larger front.

On forming upon the outer flank of the 76th Regiment, the cavalry was greeted with three cheers, which was heartily re-echoed by the Dragoons, on whose sudden appearance the enemy's horse, after having advanced to charge our infantry, made a precipitate retreat. An awful pause of breathless expectation now ensued. The numerous artillery of the enemy seemed to watch an opportune moment to frustrate the meditated attack, by pouring destruction upon their assailants. The affecting interest of the scene was heightened by the narrow escape of the commander-in-chief, whose charger having been shot under him, his gallant son, Major George Lake, while in the act of tendering his own horse to the general, was wounded by his side. This touching incident had a sympathetic effect upon the minds of all who witnessed it, and diffused an enthusiastic fervour among the troops, who appeared to be inspired by it with a more than ordinary heroic ardour. The cavalry trumpet now sounded to the charge; and though it was instantly followed by the roar of a hundred pieces of cannon, which drowned every other call but an instinctive sense of duty, the whole, animated by one spirit,

rushed into the thick of battle. The 29th (now the 25th) Regiment of Dragoons pierced with the impetuosity of lightning through both lines of the enemy's infantry, in the face of the most tremendous fire of grape-shot and a general volley of musketry. This advantage was followed up instantly by our veteran chief, who, at the head of the 76th Regiment, supported by the 12th, 15th, and a detachment of the 16th Regiment of Native Infantry, seized the guns from which the enemy had just been driven. The 29th Dragoons, after this achievement, made a wheel to the left to charge the enemy's horse, who had assumed a menacing attitude; and after completely routing and pursuing them to the pass through the hills, our cavalry fell upon the rear of the main body, and entirely cut off their retreat. During these rapid operations, the infantry, still continuing to press forward, routed the enemy against whom they were opposed, and succeeded in driving them towards a small mosque in the rear of the village, about which they were met and charged by the British cavalry in various directions. The remainder of the first column of our infantry came up just in time to join the attack of the reserve of the enemy, which was formed in the rear of their first line. At this period of the battle Major-General Ware fell dead, his head being carried off by a cannon-shot. He was an excellent officer, and his loss was severely felt and deeply lamented by the whole army. After his death, the command of the column devolved upon Colonel Macdonald, who, though wounded, continued in the exercise of the important trust with the utmost judgment, activity and intrepidity till the close of the action.

The enemy with determined obstinacy persisted in defending their position to the last, contending every point inch by inch, and refusing to give way till they had lost the whole of their guns; and even then, when their situation had become desperate, they still continued to manifest the same courageous disposition, their left wing endeavouring to effect their retreat in good order; but this attempt was frustrated by the 27th Regiment of Dragoons, and the 6th Regiment of Native Cavalry, commanded by Lieutenant-Colonel John Vandeleur of the 8th Light Dragoons, who broke into their column, cut many to pieces, and captured the rest, with the whole of the baggage.

The loss sustained by the British army in accomplishing this victory was great, amounting to about eight hundred killed and wounded; but that of the enemy far exceeded it, for, with the exception of two thousand who surrendered themselves prisoners, the whole of their seventeen battalions were destroyed, so that the dead alone on the field of battle could hardly have been less than seven thousand men. Though some of their cavalry were enabled, by the fleetness of their horses and local knowledge, to escape destruction, the rest, except those who had the good fortune to conceal themselves among the bazaar people, were numbered with the slain.

Ahaji, the commander of the Mahratta army, abandoned the field on a richly-caparisoned elephant, which, on finding himself closely pressed by the British dragoons, he relinquished, and, mounting a swift horse, succeeded in getting off, as our men were unable, from the exhausted state of their horses, to continue the pursuit.

The battle, which terminated at 4 o'clock, gave to the victors the whole of the enemy's bazaars, with the camp-equipage and baggage, a considerable number of elephants, camels, and above sixteen hundred bullocks, seventy-two pieces of cannon, five thousand stand of arms, forty-four stand of colours, sixty-four tumbrils laden with ammunition and three with money,

besides fifty-seven carts containing stores of various descriptions. The military apparatus and supplies were of prime quality, and the ordnance in particular, with the exception of nine guns, was perfectly serviceable. From the commencement of the conflict early in the morning with the British cavalry to the close of the general action in the evening, the enemy discovered a firmness of resolution and contempt of death which could not fail to command the admiration of their opponents, whose energies in the struggle were strained to the utmost, though nothing could repress their ardour, or withstand the impetus of their united exertions. The seventeen battalions with whom our army were engaged constituted the flower of Sindia's establishment, and, by way of pre-eminent distinction, were called the "Deccan Invincibles." Their total overthrow, therefore, completed the humiliation of this formidable Mahratta chief by depriving him of that power which his military superiority, with the aid of the French force, enabled him to maintain in Hindustan.

Throughout this eventful war, indeed, every conflict gave evidence of the improvement made by the natives in military knowledge through their connection with the French, whose abilities were exercised to the utmost in exasperating the chiefs against the English, and in forming their subjects into hardy and disciplined soldiers, with the view of thereby overthrowing our dominion in the East.

On the present occasion the effect of French instruction was fully exhibited; for the Mahratta army displayed all the characteristics of European arrangement and discipline. Considering, therefore, the enemy's advantages in point of training and position, their superiority in number compared with the British actually engaged, and the fatigue the British troops had endured previous to the battle, the victory was indeed a glorious one.

The cavalry, after marching forty-two miles in less than twenty-four hours, were hotly engaged with the whole force of the enemy from sunrise till near sunset; and of so pressing a nature was this trying service, that the horses were actually without food or water for the space of twenty hours. On coming up with the enemy, they were called into immediate exercise; and continued it, with little cessation, under very painful disadvantages, till the arrival of the infantry, who also had undergone extraordinary fatigue and hardship, in forced marches of sixty-five miles in forty-eight hours.

During the day the commander-in-chief had two horses killed under him; and the shot showered around him continually. In the morning His Excellency led the cavalry to the onset; and in the afternoon he advanced at the head of the 76th Regiment, with whom he conducted all the attacks that were made on the enemy's line and on their reserve posted in and about the fortified village of Mohaulpur.

But among the trials which exercised the fortitude of Lord Lake on that day, the most distressing was the accident that befel his gallant son, Major Lake, of the 94th Regiment, who attended his father in the capacity of aide-de-camp and military secretary throughout the whole campaign. In that part of the battle of which an account has already been detailed, while the commander-in-chief was leading on his troops against the enemy, his horse fell under him, pierced by several shot; upon which his son instantly dismounted and urged his father to accept the horse which he rode. This was at first refused; but, after some entreaty, the general was prevailed upon to comply, when, just as the major had mounted another horse belonging to a trooper, he received a severe wound from a cannon-shot in the presence

of his father. Parental affection was suspended for a while by the sense of public duty, and the general proceeded with unrelaxed vigour in the prosecution of the great object that was paramount to all others; after accomplishing which, and remaining master of the field, he had the consolation to find that his brave and affectionate son, though severely wounded, was likely to do well and prove an ornament to his country. He recovered, but was killed on the 17th August 1808, at the storming of the heights of Roleia, in Portugal.

The setting sun, after this busy and sanguinary day, presented a spectacle to the beholder calculated to agitate his mind with a variety of emotions. For while he could not but feel grateful at the result of the conflict, and exult in the laurels which rewarded the victors, his sympathy was awakened in contemplating the extensive plain covered with the bodies of the dead, and hearing on all sides the groans of the wounded and the dying. This terrific picture was heightened by successive explosions of powder magazines and tumbrils of ammunition, which shook the atmosphere and obscured the horizon with tremendous clouds of sulphurous smoke. If anything could add to such a scene of woe, it was the approach of a murky night indicating a hurricane, that came on with furious rapidity, till it spread an indescribable degree of horror over the blood-stained field.

On the arrival of the camp-equipage, which was not till late in the evening, the victorious troops pitched their tents near the rivulet between the village of Laswari and that of Impurah or Singrah. A battalion of infantry took charge of the prisoners who were collected together at the village of Sagepura, lying about midway between the British camp and the ill-fated village of Mohaulpur, which, from its situation in the midst of the battle, was now reduced to ashes. Shortly afterwards, the commander-in-chief liberated all the prisoners, with the exception of the principal officers amounting to forty-eight, whom he thought it prudent still to retain.

In brigade orders, Colonel Macan, commanding 3rd Cavalry Brigade, requested Mr. Lyss and Mr. Newman, surgeons of the 29th Dragoons, to accept his best thanks for their humane and successful exertions in bringing off the wounded, though with the greatest personal risk to themselves, and in affording the natives, as well as the Europeans, every assistance in their power.

The total loss in the battle was as follows :—

	Killed.	Wounded.
Europeans ... ..	95	311
Natives ... ..	77	341
Horses—Killed, wounded and missing, 553		

His Majesty's 76th Foot lost more than twice as many as any other corps both in killed and wounded—13 officers were killed and 29 wounded, of whom two died of their wounds. In officers the 29th Light Dragoons suffered most. Those of highest rank who fell were Major-General Ware, Colonel Vandeleur of the 8th Light Dragoons, Major Griffith of the 29th Light Dragoons, and Major Campbell, deputy quarter-master-general. Seventy-one pieces of ordnance were captured, of which seven were heavy brass guns, and two heavy iron ones. The iron guns were of European manufacture, the brass cast in India—one Dutch six-pounder excepted. The dimensions were in general those of the French. Large quantities of stores of all kinds were also taken.

On the 8th of November the army left the blood-stained fields of Laswari, where the air, from the number of dead carcasses of men and beasts, had become



neighbourhood, and officials were questioned about the rents; quarrels between cultivators and proprietors sometimes threw light on them. Heavily assessed villages, the proprietors of which could get as rent no more than the revenue from their tenants, would not attempt concealment. In villages where one "bhách" (or rate of revenue distribution) prevailed, that was often the true rent-rate for the worst lands in the hands of village servants. The old revenue crop rates of the pargana were always referred to, and compared with the result of the rent-rates proposed. The rent-rates adopted are shown below.

In assessing, the total assets of the village from all sources were taken into consideration, and all the information necessary to the assessing officer was arranged synoptically in a statistical paper prepared for each village. The portion of the net assets fixed as the State share was generally two-thirds. But where three-fourths or more had been paid without apparent difficulty, three-fourths was determined. Favored classes already spoken of were assessed at lower rates.

Appeals against the assessment were heard, tahsildars consulted, and some modifications of the sums first fixed were made by the Political Agent. The system of assessing villages with lump-sums, instead of each field according to the ryotwari system, was adopted as it had been in vogue even before Captain Impey's settlements.\*

Reductions on the assessment of the ten-year settlement were given to the amount of Rs. 17,293; but the net increase on the collections of the last year of Captain Impey's settlement is for the first year of the new settlement Rs. 2,07,851, rising to Rs. 2,67,743 by the twelfth year—that is, an immediate increase of nearly 12 per cent. on the ten-year settlement, and nearly 3 per cent. on the summary settlement of 1872. The assessments are shown in the statement attached. The rate per bigha on the present cultivated area will be Rs. 1-7-4 the first year, and Rs. 1-8 the last.

A record of rights was laboriously compiled for each village; the papers were neatly bound together, and the village field-map copied on tracing-cloth attached.

Whilst the settlement was in progress, advances (takávi) to the amount of nearly Rs. 80,000 were made to villagers for the construction of wells. The lands they will irrigate were not assessed as irrigated.

---

\* Before Captain Impey's settlements there were in vogue four modes of fixing the annual land-revenue :—

*Kankut*, or appraisalment of the standing corn.

*Batái*, weighment of the gathered grain. The share taken by the State has already been stated.

*Chakota*, a rough money assessment left to the villagers to distribute, and sometimes, though not often, prolonged for more than a season, or even more than a year.

*Bigheri*, or assessment by the pargana crop rate per bigha, fixed almost permanently by the Durbar for each kind of crop. Sometimes *bigheri*, *chakota* and *batái* would all be employed in the same village in the same year.

*Contract* for a short term of years, sometimes with the proprietors, sometimes with a speculator. The latter would make his collections either in accordance with the pargana crop-rates or by the other methods. This system began to come much into vogue forty years ago. It seems to have been introduced by Musalman ministers of Banni Singh; and before Major Impey's settlements it prevailed extensively, indeed almost generally, throughout the State.

In very few of the villages possessing land irrigated by streams was a separate water-rate imposed to be levied each year only on land actually submerged. Though the area so irrigated varies greatly with the season, the people generally preferred lump sums.

The position of patwáris has been greatly improved. Most formerly received under Rs. 50 a year; now there are four grades, of which the pay is respectively Rs. 5, 6, 7 and 8 a month. A large number, about 85 out of 454, learnt the use of the plane-table sufficiently well to survey villages satisfactorily. The rest were compelled to prove their comprehension of the village-map and their ability by means of it to restore destroyed boundary-pillars. Detailed directions for the guidance of patwáris in the discharge of their ordinary duties have been issued.

The only tahsil requiring additional notice is Govindgarh. It was formerly irrigated by the Rúpárel brought into it by the Hazári Bund—the dam which affected the battle of Laswari. Although the tahsil has not been so irrigated since Sambat 1894 (A.D. 1837), the high revenue rates which were originally due to the irrigation had been more or less upheld, and the consequence was that the villages were in a very distressed state. Large remissions were necessary, and the revenue was reduced from Rs. 1,01,876 to Rs. 89,912. The revenue in some of the villages was so high that it was marvellous how the people paid it at all, and substantial reductions were possible, notwithstanding that the existing revenue was never reduced unless it was more than 75 per cent. of the net assets.

Date of commencement of new settlement.

The new settlement, with the sanction of the Council, came into force on 1st September 1876, and is to run for sixteen years.

Cost.

The total cost of the settlement has been Rs. 3,10,000. Of this, Rs. 1,15,000 has been on account of survey.

The time taken has been four years and four months. This includes the operations connected with the summary settlement of 1872.

The judicial cases decided by the Settlement Department, exclusive of appeals to the Political Agent, were as follows:—

Judicial cases.

Boundary	...	...	639
Proprietary right or <i>biswadári</i>	...	...	2,810
Miscellaneous	...	...	10,171
Appeal	...	...	180
		Total	13,800

## Rent Rates per Settlement Bigha, adopted in Regular Settlement of Ulwur, 1876.

TAHSILA.	Irrigated varies		Unirrigated varies		REMARKS.	
	Rs. A.	Rs. A.	Rs. A.	Rs. A.		
Tijara Tahsil.	Tijara pargana—					
	In 1st class villages ...	from 2 12	to 4 8	from 0 14	to 1 12	
	" 2nd " " ...	" 2 4	" 4 0	" 0 12	" 1 8	
	" 3rd " " ...	" 2 0	" 3 8	" 0 8	" 1 4	
	Tapokra pargana—					
	In main circle ...	" 2 4	" 3 2	" 1 0	" 1 6	} The lowest irrigated in flooded land.
	" north " " ...	" 2 4	" 3 4	" 1 0	" 1 8	
	" east " " ...	" 3 0	" ...	" 0 14	" 1 4	
	" south " " ...	" 3 4	" ...	" 1 0	" 1 6	
	Mandáwar—					
	1st class ...	" 2 0	" 5 4	" 1 8	" 3 0	} Ditto.
	2nd " " ...	" 2 0	" 5 0	" 1 4	" 2 12	
	3rd " " ...	" 4 4	" 4 12	" 0 14	" 2 8	
	Kishengarh—					
1st flooded circle ...	" 2 8	" 5 8	" 1 4	" 3 8	} Ditto.	
2nd " " " ...	" 2 8	" 5 0	" 1 2	" 2 12		
1st sandy " " ...	" 4 4	" 4 8	" 1 0	" 2 12		
2nd " " " ...	" 3 12	" 4 0	" 0 14	" 2 8		
Katambar—						
Western sandy circle ...	" 4 4	" ...	" 1 2	" 2 0	} Ditto.	
Eastern loam " " ...	" 4 0	" ...	" 1 6	" 2 0		
Northern flooded " " ...	" 3 0	" 4 4	" 1 0	" 2 0		
Southern " " " ...	" 3 0	" 4 0	" 1 2	" 2 2		
Govindgarh—						
1st class villages ...	" 4 4	" ...	" 1 6	" 3 0	} Ditto.	
2nd " " " ...	" 3 8	" ...	" 1 0	" 2 8		
Laohmangarh—						
1st class ...	" 3 0	" 5 0	" 1 0	" 2 4	} Ditto.	
2nd " " " ...	" 2 12	" 4 8	" 0 14	" 2 0		
3rd " " " ...	" 2 8	" 4 0	" 0 14	" 2 0		
Ulwur—						
1st class ...	" 5 0	" 6 0	" 1 0	" 2 8	} Ditto.	
2nd " " " ...	" 4 0	" 5 0	" 1 0	" 2 4		
3rd " " " ...	" 3 8	" 4 0	" 0 14	" 2 0		
Ramgarh—						
1st class ...	" 4 0	" 6 0	" 1 0	" 3 0	} Ditto.	
2nd " " " ...	" 2 12	" 6 0	" 1 0	" 2 8		
3rd " " " ...	" 2 8	" 5 0	" 1 0	" 1 12		
Rájgarh—						
Pargana <i>Reni Mácheri</i> ...	" 1 12	" 4 10	" 1 0	" 2 1	} Ditto.	
" <i>Rájpura</i> , one-crop land	" 2 0	" 4 14	" 1 11	" ...		
" " double " " ...	" 7 12	" ...	" ...	" ...		
" <i>Rájgarh</i> " " ...	" 2 8	" 5 9	" 1 8	" ...		
" <i>Tahla</i> , one-crop land	" 2 8	" 5 1	" 1 7	" ...		
" " double " " ...	" 9 6	" ...	" ...	" ...		
Bahror—						
Loam I circle ...	" 5 4	" 6 0	" 1 6	" 3 4	} A rate intermediate between irrigated and unirrigated was charged on irrigated. A rate from 2 to 4 annas lower than Bahror. It was charged on sandy lands called <i>puth</i> .	
" II " " ...	" 5 4	" 5 12	" 1 2	" 2 12		
Sandy I " " ...	" 4 4	" 4 12	" 1 2	" 2 10		
" II " " ...	" 4 0	" 4 8	" 0 12	" 2 4		
Bánsúr—						
Class I ...	" 1 8	" 5 8	" 0 12	" 2 2	} Defauli, or double-cropped land, is charged at Rs. 9 in seven villages. The lowest irrigated is flooded land. Kauri is charged at Rs. 1-12 and Rs. 2-4.	
" II ...	" 1 4	" 4 8	" 0 12	" 2 0		
" III ...	" 1 0	" 3 8	" 0 10	" 1 0		
Thana Ghazi—						



Statement of soils, &c., in fiscal villages.

	BARAN, OR LAND LYING NEAR VILLAGE SITE.		HAR, OR LAND LYING AT A DISTANCE FROM VILLAGE SITE.		1st Class.	2nd Class.	3rd Class.	4th Class.	Irrigated.	Unirrigated.	TOTAL.
	Well-land.	Unirrigated.	Well-land.	Unirrigated.							
<i>Chiknot</i> , or clayey loam ...	Bighas. 12,780	Bighas. 2,674	Bighas. 33,411	Bighas. 56,453	...	...	...	...	...	...	...
<i>Matyār</i> , or sandy loam I ...	49,723	15,792	77,986	3,53,488	...	...	...	...	...	...	...
<i>Matyār</i> II ...	3,995	2,125	12,015	1,19,273	...	...	...	...	...	...	...
<i>Bhur</i> , or sandy I ...	7,484	6,961	18,039	3,23,377	...	...	...	...	...	...	...
<i>Bhur</i> II ...	142	1,401	1,429	1,44,735	...	...	...	...	...	...	...
DAHRI, KATI, NAHRI, TALABI, land irrigated in various ways ...	...	...	...	...	58,117	34,347	1,358	5,453	...	...	...
Total cultivated ...	...	...	...	...	...	...	...	...	3,16,279	10,26,309	13,42,588
Culturable ...	...	...	...	...	...	...	...	...	...	...	2,52,642
Unculturable ...	...	...	...	...	...	...	...	...	...	...	7,40,344
Revenue-free in fiscal villages ...	...	...	...	...	...	...	...	...	...	...	82,404
<b>TOTAL</b> ...	...	...	...	...	...	...	...	...	...	...	<b>24,17,978</b>

40

*Tahsil Revenue Statement.*

No.	TAHSIL.	Realized in last year of Ten-Year Settlement.	Average Annual Collections during Summary Settlement of 1872.	Assessment for first year of New Settlement.	Assessment for twelfth and following years of New Settlement.	REMARKS.
		Rs.	Rs.	Rs.	Rs.	
1	Ulwur ...	2,01,852	2,30,393	2,35,149	2,42,629	The collections of passed settlements often exceed the total amount previously assessed, owing to rent-free holdings falling in, and from other causes.
2	Bánsúr ...	1,48,091	1,49,161	1,50,167	1,63,234	
3	Bahrór ...	1,47,289	1,64,834	1,87,865	1,92,530	
4	Govindgarh ...	98,431	99,278	89,912	90,112	
5	Katambar ...	1,22,185	1,39,236	1,43,473	1,45,483	
6	Kishengarh ...	1,66,824	1,82,975	1,93,145	1,98,645	
7	Lachhmangarh ...	1,52,217	1,59,481	1,61,127	1,61,672	
8	Mandáwar ...	1,44,742	1,58,263	1,61,182	1,68,207	
9	Ramgarh ...	1,68,272	1,83,058	1,83,547	1,88,437	
10	Rájarh ...	1,39,889	1,49,233	1,50,878	1,55,413	
11	Tijára ...	1,29,643	1,48,751	1,64,100	1,59,000	
12	Thana Ghazi ...	1,32,599	1,41,372	1,49,035	1,51,410	
	Tqtal ...	17,52,031	19,06,030	19,59,885	20,19,777	

( 314 )

General Statement.

Castes of Proprietors of Fiscal Villages.														Of Fiscal Villages only.								
Mco.	Ahir.	Chind- Rajput.	Gujar.	Jat.	Mina.	Brahmin.	Khatiwala.	Musahman Rajput.	Mali.	Sawal.	Kivath.	K. P. J. J.	Sikar.	S. A.	S. B. A.	Mixed.	Houses.		Popula- tion.	DETAIL OF ALL THE VILLAGES IN THE STATE.		
																	Cultiva- tion.	Total Houses.		Khativ. or Sawal, i.e., revenue-paying	Khativ. or Sawal, i.e., revenue-free	
438	152	177	108	64	78	64	26	13	4	5	4	8	1	1	1	1	1	1	1	1	1,431	537
																	258	1,430	60,470	58,170	127	1,797

All the statistics below refer to fiscal villages only.

Ploughs.	Land Cultivated (Settlement bignas).		Masonry Wells.		Well-runs.		Well depths.			Details of Wells. (Masonry.)				Wells Khativ. or non-masonry.		Cost of a Well.			Total Well-runs.										
	At Captain Impoy's Ten-Year Settlement.	After Captain Impoy's Ten-Year Settlement.	At Ten-Year Settlement.	After Ten-Year Settlement.	At Ten-Year Settlement.	After Ten-Year Settlement.	From surface of ground to water-level.			Depth of water.			Wells for irrigation on fiscal land.	Wells for drinking purposes.	Incomplete.	Khativ. or Sawal.	Khativ. or revenue free.	Wells out of use.	Masonry.			Non-masonry.			Fiscal.		Rent-free in fiscal villages.		
							1st class.	2nd class.	3rd class.	1st class.	2nd class.	3rd class.							1st class.	2nd class.	3rd class.	1st class.	2nd class.	3rd class.	Of masonry wells.	Of non-masonry wells.	Of masonry wells.	Of non-masonry wells.	
22,508	50,398	Bighas. 10,34,000	Bighas. 13,42,587	10,780	11,189	12,604	16,074	132	70	4	60	80	4	589	11,189	698	85	2,407	123	5,210	2,000	800	100	80	80	2,16,074	2,672	385	3

	Percentage of total cultivated area.	Area in settlement bighas.		Settlement bighas.	Name of Settlement.		Assessment.	Percentage of settlement.	Regular Settlement which came into force Sept. 1st, 1876.	Assessment for Sixteen Years.	Percentage of perpetual settlement.	TOTAL.	
							Rs.		Rs.	Rs.		Rs.	
Manured	13	1,64,168											
Irrigated	24	8,16,270*	Area cultivated by proprietors.	7,12,687	Captain Thrope's	1866-67 to 1870-71	13,00,419	2.9%	1876-77 19,50,886 1877-78 19,52,284 1878-79 19,57,837 1879-80 19,64,384 1880-81 20,11,390 1881-82 20,14,478	4,372	19,66,767 19,67,154 19,69,496 20,09,118 20,18,293 20,19,381		
Best crops ( <i>bani sabli</i> )	6	76,687	Do. held on lease, or by tenants-at-will.	2,28,114			17,21,150		1877-78 20,17,389 1878-79 20,18,269			20,22,261 20,28,141	
Babi or spring crops	23	3,88,038	Do. by hereditary cultivators having revenue but no just.	3,25,681			17,37,656			1,10,627		20,24,399	
Sugarcane	1	2,785					17,42,244						
Two-crops-a-year land ( <i>defauli</i> )	8	69,914	Do. on rent-free grant from proprietors, not State grant.	21,114			17,45,681						
			Do. on rent-free grant from proprietors, or strangers.	1,10,000	Summary Settlement of 1872		17,48,628			23,10,777		20,24,649	
			Do. on rent-free grant from the Govt.	15,123			17,51,084						
			Do. on rent-free grant from the Govt.	15,123			17,51,084						
			Do. on rent-free grant from the Govt.	15,123			17,51,084						
			Do. on rent-free grant from the Govt.	15,123			17,51,084						

Total rental of local villages, 29,41,884.

\* Well-land, 2,19,877; flooded, canal, &c., land, 90,592.

APPENDIX VI.

Genealogical tree of the Ulwar Chief.

