ASIATICK RESEARCHES:
OR
TRANSACTIONS
OF THE
SOCIETY;
INSTITUTED IN BENGAL,
FOR ENQUIRING INTO THE
HISTORY AND ANTIQUITIES, THE ARTS, SCIENCES, AND
LITERATURE,
OF
ASIA.

VOLUME THE NINTH.

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TRANSACTIONS
OF THE
ASIATICK SOCIETY.

I.
An account of Experiments made in the Mysore Country, in the Year 1804, to investigate the effects of Terrestrial Refraction.

BY LIEUTENANT JOHN WARREN,
Of H. M. 33d Regiment of Foot.

INTRODUCTION.

NOTWITHSTANDING the various theories, which have been advanced, at different times, to account for the effects of refraction (i); and the numerous experiments which have been made by the most eminent philosopher of our times, with a view to discover some law by

(i) Particularly by De Cartes, Leibnitz, the two Bernouillis and lastly by Sir Isaac Newton, whose hypothesis, grounded on the laws of attraction, now generally obtains among physical writers.
which its effects might be reduced to certain narrow limits, applicable to practice, nothing sufficiently satisfactory has yet occurred, to set the question finally to rest.

The late General Roy was the first among us, who availed himself of the favorable opportunity which his survey presented, to pay some minute attention to the effects of terrestrial refraction. After him Colonel Williams and Mr. Dalby resumed the investigation, as far as the service on which they were employed conveniently allowed: but as this was but a secondary object with them, little additional information is to be gathered from their labours. Major Mudge has, indeed, made a number of experiments since that time; but the result has fallen so far short of his expectations, that he promises, in his latest publication, to resume, and pay particular attention to the subject: and we have no doubt every right to expect something very valuable from that quarter. But, may not the laws of refraction be so materially affected by gravity and other unknown causes, as to vary in different parts of the globe, and that theory which obtains in high northern latitudes fail in tropical regions? indeed the irregularities which of late have been detected in the declinations of certain stars, (2) which though unobserved in England, are powerfully felt in these climates, sufficiently show how much we have reason to suspect an effect of the sort, and must evince the expediency of obtaining corresponding experiments in different latitudes; for it is obvious that even to ascertain any deviation in a system, perhaps too generalised, might be attended with incalculable advantages to science.

(2) Major Lambton, in a postscript to one of his late reports to government, has this observation. "We find here, that different stars give very different latitudes, after being corrected for aberration, nutation, &c. At Trivandorpom, the latitude of that station by
It must be owned, that to render experiments on terrestrial refraction pointedly useful, it would be necessary to show how discoveries in this province might apply and be extended to refraction in general. Hitherto, on this recondite subject, nothing which would immediately apply has reached my knowledge; but as so much is still to be done whenever refraction is concerned, we may argue, that in the present stage of our information, observations confined to terrestrial objects may be deemed sufficient.

It has been stated on experiments (3) that the refractive power of the air is proportional to its density; and this is as its weight directly, and heat inversely. It would then appear, were our barometers and thermometers sufficiently accurate, that by comparing them at any given time, the ratio of its density might be had. But it has been found, on trial, that in the present unimproved state of these instruments, changes, not very minute, in the density of the atmosphere, escape our notice, when a reference is made to them alone.

"Aldebaran was 11° 44' 52" 59'. The latitude by Regulus was 11° 44' 47" 84 and the latitude by Orionis, 11° 44' 40" 91. I had made observations by the same three stars at Paudree station, where those by Regulus and Orionis were often interrupted on account of the bad weather, and consequently left doubtful; but the differences notwithstanding were nearly the same, &c. Though these observations have been set aside, they serve sufficiently to prove that the declinations, as laid down in Europe, are irregular here, and this may probably arise from the uncertainty we labour under with respect to the laws of refraction; and in consequence of erring in that, the difference of the corrected zenith distances of two stars observed in Europe, will not be the same as the difference which the same stars will give in this latitude. I am however hazarding an opinion, but as I intend being more satisfied as to the fact, I hope I shall be able to say more on the subject hereafter."

(3) By Halley.
Now, since we have every reason to suppose, that whatever share heat, cold or electricity may have separately on the refractive powers of the air (4) their effect is extremely inconsiderable, when compared with that caused by the bulk of water contained in dissolution in the atmosphere: we may therefore, in the present inquiry, consider them merely as agents, composing and decomposing perpetually the air; and neglect the consideration of that immediate effect which Smith and Euler have ascribed to them. Should we then succeed, in ascertaining, with any degree of accuracy, the relative degree of moisture and dryness, at the different times of observation, we shall (without neglecting other considerations) lay more stress on these results, than on what might be deduced separately from observations of the barometer and thermometer.

Before entering into the subject of experiments, it will be proper to preface a few words, on the motives which induced me to attend particularly to the effects of terrestrial refraction, at the time that I did; as it will afford an opportunity of giving an account of the data on which I chiefly proceeded.

Having received directions from Major Lambton, (5) to measure a line near Bangalore, to serve as a base of verification to the trigonometrical operations which were then carried on under his superintend-

(4) Euler after a number of experiments, on the immediate effects of heat and cold, on the refractive powers of media, concludes "that in all tranflucent substances, the focal distances diminish with the heat, which diminution, he conceives, is owing to a change in the refractive power of the substance itself; which probably increases by heat, and diminishes by cold."

But this applies chiefly to hard media, such as glass lenses, &c. &c. and may be deemed (for the present) too inconsiderable to require particular notice, where air is the medium.

(5) Whose assistant I then was.
ance, it occurred to me, when this service was completed, that so favourable an opportunity was not likely to recur, for entering minutely into the subject; for every possible means had been taken, to insure as accurate a measurement as could be effected; and this line, together with the elevation of one of its extremities above the other (ascertained in the course of the measurement) afforded every necessary datum to proceed on in this investigation.

As the detailed account of the abovementioned operation will appear at full length in Major Lambton's reports, and cannot with propriety be given in this paper, I hope that its being known to form a part of the trigonometrical operations, carried on in the peninsula of India, will appear a sufficient pledge of its accuracy.

ACCOUNT OF INSTRUMENTS.

The elevations and depressions were taken with the great theodolite, used by Major Lambton, for carrying on his series of primary triangles across the peninsula. This instrument, having been formerly described by himself, need not be any further particularized. The angles were invariably taken with the micrometer in the focus of the telescope.

A Barometer and thermometer were also procured (6) but from the reasons above given, the want of an hygrometer was likely to deprive me of what I considered to be an essential means of investigation (though I cannot find that such an instrument was ever applied to a similar purpose) when Lieutenant Kater, of H. M. 12th regiment, communicated to me his observation, on the bearded seeds of a wild grass,

(6) The barometer was a common one, the property of Doctor Heyne, the company's naturalist. The thermometer, one of Fahrenheit's division.
called in the Malabar tongue Panimoooloo (the Andropogon contortum of Linneus) which grows in abundance in this part of the peninsula, and which he thought was likely to answer for an instrument of this sort (7).

Although I understand it to be this gentleman's intention, to give an account of his experiments, on these fibres, to the public; yet as his official calls prevented him from going minutely into the subject, at the period when I had occasion for an hygrometer, I was under the necessity of anticipating his intended investigation; and the experiments detailed in the appendix will shew, that after an ample trial, the beards of the Panimoooloo grass were found perfectly competent to the construction of an hygrometer. Three of these instruments were therefore constructed, and the mean of their readings noticed in the annexed tables.

EXPLANATION OF THE TABLES.

The detail of experiments, on the effects of terrestrial refraction, together with the immediate results deduced from them, appear in these tables, under the appropriate columns; and a reference to them will best explain their arrangements.

It is however necessary to explain the meaning of certain marks, which appear, at various places, under the figures; and which have been adopted, both for the sake of perspicuity and brevity.

I soon perceived, after collecting a certain number of observations, the prevailing agreement, between the motions of the hygrometer, and the variations, which occurred, in the observed angles of elevation and depression.

(7) The beards of the wild oats have been used in England for a similar purpose (see Hutton's Dictionary, Art. Hygrometer).
This being a novel and interesting fact (of which I had still more reason to be convinced, after I had succeeded in regulating the hygrometers) I was desirous to draw the attention on this coincidence, and with this view the marks alluded to were affixed.

Taking it for granted (as perhaps the present experiments will be deemed to allow) that where the moisture of the atmosphere is greatest, the refraction, at that moment, is also greatest (and \textit{vice versa}) wherever, in the annexed tables, the observation rigorously agrees with this theory, the mark (§) is placed underneath; (8) where the coincidence of moisture and refraction is not absolutely exact, the approximation is pointed out by a cross $\pm$, shewing, by the number of its bars, how near it comes to perfect constancy.

With a view to draw the attention still closer to the effects of moisture on refraction, two columns of differences, which were kept at the time of observation, have been preserved. The column which relates to the angles being marked $\pm$, according as these have been measured grea-

(8) It is to be noticed however, that morning and evening observations are compared separately, neglecting those taken in the middle of the day; for these, from the great motion which then disturbs the atmosphere, must necessarily be very imperfect. The only reason, why these observations are not left out altogether, is, that however imperfect they may be, as to a second or two, they contribute nevertheless to establish the proof of the relation of moisture to refraction; for it is to be observed that (when the weather is perfectly clear of rainy clouds,) the refraction is never so inconsiderable as in the heat of noon, when the sun shines brightest, and when the tremor of the atmosphere is most considerable; and the reason of this seems to be "because the atmosphere, however disturbed, is then generally in its driest state." There was so little refraction at that hour that the elevations of the \textit{Muntapum} frequently bring it out negative; an absurdity which arises, both from the impossibility of taking the angles accurately, and the very small refraction then prevailing.
ter or less, at the two nearest observations; and that of the contemporaneous relative moisture being marked M, or D, according as the atmosphere had changed from a moist to a drier state, and vice versa.

As this coincidence has been very general, I found the shortest way was to mark with an asterisk (*) those cases where it had failed; and by inspecting the tables, it will appear, that the number of these is comparatively small.

The quantity of refraction, as entered in the appropriate columns, has been computed, according to those respective cases of depression or elevation, founded on reasonings, too generally known, to require any minute explanation.

It will only be necessary to state, that, with regard to the measured line, the formula \( r = \frac{1}{2} A - D + a \) (9) has been used, in preference to that of \( r = \frac{A - (D + D')}{2} \), for the obvious reason, that a greater reliance was to be placed on the perpendicular depression, obtained during the process of measurement, than on corresponding angular depressions, taken at the S. end of the base line, even though an equal number of observations had been taken at each end.

The refraction, affecting the elevation of the Muntapum (10) was necessarily computed by means of the elevations and depressions, taken

\[ (9) \text{ Where } r = \text{ Refraction,} \]
\[ \frac{1}{2} A = \text{ One half the contained arc.} \]
\[ D = \text{ The greater depression.} \]
\[ D' = \text{ The lesser depression.} \]
\[ a = \text{ The angle subtended by the perpendicular depression of S. end of measured line.} \]

\[ (10) \text{ A small stone building, on a very conspicuous rising ground, about 4 miles N. of Bangalore.} \]
at both places respectively, \( r = \frac{A - (D - E)}{2} \) being the appropriate formula, where \( E \) expresses the elevation, and is less than \( D \).

An example of each will suffice to render the subject perfectly clear.

**Example I.**

The length of the measured line (Banfiwary and Beygoor) being converted into an Arc of a great circle, gives 6' 34.67 = A (11)

Again, the depression of the south extremity of the line (near Beygoor) below the level of the northern one, is 39.7 feet, and using the proportion of radius to tangent, we have for the angle which it subtends 3' 25.75 = a.

Lastly, on the 7th of August, at 6th 39' A.M. the depression of the foot of the flag-staff, near Beygoor, was observed at Banfiwary, 6' 42" 66.

But the height of the observer's eye above the ground was 5.67 feet (that of the instrument) which to reduce to the ground, will require 29" 39 to subtract: consequently, the corrected depression will be 6' 13.27 = D (the quantity entered in the tables.) Whence

\[
\begin{align*}
\frac{1}{2} A & = 3' 17" 34' \\
+ a & = 3' 25" 75 \\
\hline
6' 43" 09 \\
- D & = 6' 13" 27 \\
\hline
r & = 29' 82 \\
\end{align*}
\]

The refraction entered in the tables.

The horizontal length of the measured line is 39799.31 feet; and when reduced to the level of the sea, = 39793.7. This length has been used, in this particular cafe, to obtain the contained Arc; because the tables, by means of which the operation was performed, were calculated to that distance from the center of the earth.
EXAMPLE II.

At the same hour, the top of the flag-staff was observed 4° 37' 32" which, corrected for the height of the instrument, as above, gives the depression 4° 07' 93" = D. Again, the length of the flag-staff being 24 feet, this subtracted from 39.7 leaves the perpendicular depression below the line of the level 15.7 feet; and the angle which it subtends = 1° 21' 36" = a.

**Hence we have,**

\[
\begin{align*}
\frac{1}{2} A &= 3° 17' 34" \\
\frac{1}{2} a &= 1° 21' 36" \\
D &= 4° 07' 93" \\
\theta &= 0° 30' 77"
\end{align*}
\]

The refraction entered in the tables.

EXAMPLE III.

1st. The distance from the N. extremity of the line (Banswary) to the Muntapum is 26327.3, which converted into an arc of a great circle, is 4° 18' 7" = A.

2d. Again, the elevation of the Muntapum was taken at Banswary (on the same day 8th. 17 A. M.) 9° 21' 84", and this corrected for the height of the instrument (by adding 44" = 43") makes the elevation 10° 5' 27" = E.

3d. Lastly, in the beginning of August, during the afternoon, being at the Muntapum, the depression of N. end of line was observed, on a mean of four observations, to be 15° 19' 5", and the instrument (in the...
Muntafum) being 8 5 feet above the ground, we have to subtract 1'6' 59',
which reduces the depression to 14 12' 91 = D, a constant quantity in
computing the 3d column of refraction.

Hence we have,

\[
\begin{align*}
D & = 14' 12'' 91 \\
E & = 10' 06' 27 \\
A & = 4' 06' 64 \\
2 & = 0 12 05 \\
\hline
r & = 06 03
\end{align*}
\]

The refraction entered in the tables.

The absolute degree of moisture was deduced as follows.

As I knew of no standard, by which I might set the hygrometer, when
I was about observing, the least degree of moisture noticed during the
day was assumed as zero. This arrangement had this advantage, that
the refraction and moisture had a similar direction, and their coinci-
dence met the eye more easily.

The column which shews the absolute density of the atmosphere was
computed by this formula:

\[
D = (B - B') \times \frac{9832 d}{9650} \times \frac{1 - \frac{n}{433}}{12} \tag{12}
\]

(12) Where \(D\) expresses the increase of density, \(B\) the height of barometer at the time of
observation, \(B'\) the state of the same when lowest of all, \(n\), the difference of temperature in the
air, and \(d\) the difference of temperature in the mercury.
sufficiently known. An example however may not be deemed superfluous.

**Example.**

The lowest degree to which the barometer descended, during the course of these experiments, was 26.85 inches = $B'$, when the temperature also least of all was 69°. These two quantities are used as constant in the computations.

Now, on the 7th of August, at 6th 39' A. M. the barometer was observed to be at

$27 = B$

from which deduct

$26.85 = B'$

there remains,

$0.15 = B - B'$

Again, the thermometer at the same time was 75° from which deduct 69° and we have $6 = n$; and as no difference of temperature was noticed in the atmosphere and mercury, the same quantity (6) will also be expressed by $d$.

Hence it is that having found,

$B - B = 0.15; \frac{9602 - 4}{9602} = 0.99, &c; \text{ and } \frac{415}{480} = 0.98, &c.$

we have $0.15 \times 0.99 \times 0.98 = 0.145530$; which to reduce in terms of $B^0$ (the least density) we have $\frac{26.85}{0.145530} = 1\frac{1}{184}$ the increase of density.

Lastly, to obtain an expression in absolute numbers, we have as $26.85; 26.85 + \frac{1}{184} = 1000; 1000.202$, the quantity entered in the tables.

The remaining columns are sufficiently explicit to require no explanation.
<table>
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<th>Month and Day</th>
<th>Time of Observ.</th>
<th>Depression of Base of Staff B, E. of Line</th>
<th>Depression of top of Staff B, E. of Line</th>
<th>Elevation of Post of Staff</th>
<th>Refraction calculated</th>
<th>Observation</th>
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<td></td>
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<td></td>
</tr>
</tbody>
</table>

### Remarks

The observations made at the University of Edinburgh have been preferred as an indication of the very small quantity of radiation prevailing at the time when they were taken.

---

### Table

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Temperature</th>
<th>Depression</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 January</td>
<td>09:00</td>
<td>5°C</td>
<td>-0.1°C</td>
<td>-0.2°C</td>
</tr>
<tr>
<td>2 January</td>
<td>10:00</td>
<td>6°C</td>
<td>-0.2°C</td>
<td>-0.3°C</td>
</tr>
<tr>
<td>3 January</td>
<td>11:00</td>
<td>7°C</td>
<td>-0.3°C</td>
<td>-0.4°C</td>
</tr>
</tbody>
</table>

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### Elevations Reduced

<table>
<thead>
<tr>
<th>Date</th>
<th>Elevation Reduced</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 January</td>
<td>10 meters</td>
</tr>
<tr>
<td>2 January</td>
<td>11 meters</td>
</tr>
<tr>
<td>3 January</td>
<td>12 meters</td>
</tr>
</tbody>
</table>

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### Difference

<table>
<thead>
<tr>
<th>Date</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 January</td>
<td>-0.2°C</td>
</tr>
<tr>
<td>2 January</td>
<td>-0.3°C</td>
</tr>
<tr>
<td>3 January</td>
<td>-0.4°C</td>
</tr>
</tbody>
</table>

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### Foot of Flag Half

- On Muir's land: 10 meters
- On the top: 15 meters

---

### Top of Flag Half

- On Muir's land: 20 meters
- On the top: 25 meters
REMARKS ON THE RESULTS.

11th. The most remarkable fact, which calls for our attention, in the results of the present experiments, is the almost invariable coincidence of the increase of refraction with that of moisture; which will appear still more forcibly, if we consider the results of the following eight observations, all taken between 10 and 12 o'Clock P. M. on different nights, when I was engaged in observing the eastern elongation of the polar star; the depression of the S. extremity of the line being taken by means of a referring lamp.

<table>
<thead>
<tr>
<th>Days</th>
<th>Depressions</th>
<th>Refraction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aug. 7</td>
<td>6' 14 57</td>
<td>1' 25 76</td>
</tr>
<tr>
<td>10</td>
<td>6' 42 94</td>
<td>1' 25 85</td>
</tr>
<tr>
<td>11</td>
<td>5' 30 38</td>
<td>1' 25 91</td>
</tr>
<tr>
<td>18</td>
<td>5' 40 64</td>
<td>1' 25 43</td>
</tr>
<tr>
<td>13</td>
<td>5' 30 32</td>
<td>1' 25 43</td>
</tr>
<tr>
<td>14</td>
<td>5' 40 56</td>
<td>1' 25 43</td>
</tr>
<tr>
<td>15</td>
<td>5' 33 67</td>
<td>1' 25 46</td>
</tr>
<tr>
<td>16</td>
<td>5' 40 57</td>
<td>1' 25 46</td>
</tr>
</tbody>
</table>

Mean refraction 1' 1" 38.

On comparing the hygrometers, as they stood at the time of these observations, with their position when last noticed in the daytime, it was found that they had revolved, on a mean, 240° in the direction of moisture. Now, the mean refraction of 55 observations, noticed in the tables, is 29° 74; and we have seen that of the 8 observations taken at night (which from the stillness of the air may be deemed to balance a superior number) to be 1' 1" 38. Hence it will appear, that the latter is something more than double the former.

2d. We shall next advert to the comparative quantity of refraction, which seems to have affected the observations of the different objects.
referred to in the tables; and here, it is perhaps worthy of notice, that out of 49 contemporaneous observations, of the top and foot of the flag-staff, at the S. extremity of the line, the refraction attending those of the foot are 36 repeated times less than those of the top; and that, in the 13 remaining ones, where the contrary occurs, the excess is seldom above 2 of refraction, and frequently below unity. (13) As this circumstance is in opposition to the general theory, “that the lower the object, the greater the refraction,” should the same circumstance occur again, in future experiments, it will be worth while to inquire, whether the rays, when passing through the atmosphere below the line of the level, may not be refracted differently from what they are when passing above it. This may perhaps be thought better than a mere conjecture, if it be recollected, that Mr. Bouguer, (whilst employed in measuring a degree of the meridian in South America, and observing on the summit of the Cordeliers) noticed a sudden increase of refraction, when he could view the stars below the line of the level.

3d. With regard to any attempt towards estimating the effects of terrestrial refraction, by an assumed ratio to the contained arc, as has been hitherto the practice; without entering into any discussion of the subject, I shall only observe, that if in the foregoing experiments, we go by the observations taken in the day time, we shall have (considering the foot of flag-staff, and preserving the same notation) \( t = \frac{1}{13.27} \); and if we take those

---

(13) The mean difference of refraction, between the top of the flag-staff and the Muntapum, \{ on 38 contemporaneous observations \} is 16°. 44; and that between the top of flag and Muntapum is 22°. 51 where the order is inverted by 6°. 07; and if the top and foot of flag staff be compared, in an equal and contemporaneous number of observations, the mean of their difference is 6°. 08 likewise in the inverse order.
by night, it will be \( r = \frac{1}{5} \) of the contained arc, from which we can collect nothing.

4th. I have now only to add a few words, on the comparative density of the air, at the different times of observation, such as entered in the tables; and the evident want of connection, between its changes and those in the refraction; from which we may infer, that although in northern climates (where the mercury will rise and fall several inches in one day) observations of the barometer and thermometer may be attended to with advantage, on the contrary, in tropical countries, where (as appears in the present experiments) the variations of the mercury are hardly discernible, (14) those instruments will prove perfectly inefficient.

**APPENDIX.**

An account of Experiments on the fibres or beards of the Panimooloo grass; containing also an account of the construction of the hygrometers, used in the preceding experiments.

Before I proceed to give an account of the experiments, by means of which I satisfied myself of the competency of the beards of the Panimooloo grass, to the object I had in view, it will be necessary to give a short description of the plant itself, or (since a botanical account of it is not here intended) of that part of the plant, which was used

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(14) At Madras, the greatest alteration was observed 0.75 inches: and the mean annual change 0.53. At Banjaries, during the time of attending to the present experiments (that is about twelve days,) the greatest change was 0.2: the latter place being 2970. 8 feet above the level of the Sea.
in the construction of the hygrometers, consulted in the preceding experiments on refraction.

The *Panimooloe* grass, which grows chiefly on mountains, and is well known to the natives, from its beards easily catching and adhering to their clothes, produces a kind of ear, somewhat resembling that of wheat. Its seed vessels shoot out long fibres, of a hardy texture, which entwist one with the other from left to right, so as to resemble, when in that state, a diminutive coir rope.

These fibres, or beards, are the part of the plant used in the construction of the hygrometers, and consequently deserve particular notice.

Each fibre shoots out, in a straight line, nearly to the length of an inch, from the seed vessel, to which it adheres; then tapers off, in curls, to a very fine end, so that the former part of it can alone be used for the present purpose.

When viewed through a magnifying glass, it appears to be made up, like a rope, in broad strands, twisted from left to right; which, when water is applied (contrary to its effect on a rope) are gradually unfolded, and cause the motion of which I availed myself.

The twirls, in the straight part of the stem, are from 5 to 7 in number; and these, as I have found by experiments, nearly mark the number of revolutions, of which the fibre is susceptible, by the application of moisture.

When dissected, the stem was found to be made up of two fibres, connected by a slight membrane, easily divided, and twisted round each other, until they were united in a common stalk, at the seed vessel at one end, and above the first curl at the other.
This construction readily explains why it should be easily affected by either moisture or dryness, but does not evince that heat, or other changes in the ambient air, might not likewise operate upon it in the same direction. The following experiments satisfied me however, that moisture alone unfolded the stem.

**Experiment I.**

Having fixed a stem, about an inch long, with six twists in it, on a piece of wax, a slit straw was fastened at its upper end, by way of index: The whole was then placed clear of any motion of the air, in such a position as the nature of the experiments required; and a graduated circle of paste board was so placed about it, as to indicate the number of revolutions and degrees which the index went over.

Then, on placing my hand within an inch of the stem, the index generally moved from $5^\circ$ to $10^\circ$ of the circle, from left to right; and as motion in this direction was invariably the consequence of moisture, it was probable (but still it remained to be proved) that the effluvia arising from perspiration principally affected it in this case.

**Experiment II.**

By breathing violently on the stem, I generally brought the index round from $70^\circ$ to $90^\circ$ in the same direction; and it would go back to its original place, as soon as let free.

This was a sufficient proof of its great sensibility; but to make sure whether moisture or heat caused it to move in the two preceding cases, I had recourse to the following.
EXPERIMENT III.

I first applied a red-hot bar of iron, as close to the stem, as could be contrived without burning it, which moved it uniformly from right to left.

Again, having prepared another stem, I applied the steam of hot water, issuing from the spout of a Tea-kettle; which caused it to move, with great violence, several revolutions from left to right; which was a sufficient proof, that heat acted on this grass only in as much as it deprived it of its moisture.

I then proceeded to ascertain, whether the stem was any way regularly affected by the changes in the atmosphere; a point on which everything depended. With this view I made up three hygrometers, on the following construction.

Three stalks were taken, of the same length and number of twists, and being fixed, at one end, into a piece of wax, with an index (as above described) the whole was fixed at the bottom of so many strong tin boxes, about 2½ inches deep, on the edge of which was placed a moveable broad paste-board circle, graduated every 5°, and divided in the common way of 360°. (1) These three hygrometers were then placed together, and observed, for two successive days, at every hour of the day, from 7 o'clock in the morning, to 8 in the evening; noticing, at the same time, both the barometer and thermometer; as the annexed tables will shew.

(1) This graduation will I trust appear perfectly sufficient, when it is considered, that the mere effluvia arising from perspiration moved the index 88 or 108, as above mentioned.
### Table showing the comparative rate of going of three Hygrometers.

<table>
<thead>
<tr>
<th>Days and Months</th>
<th>Thermometer</th>
<th>Barometer</th>
<th>No. 1</th>
<th>Difference</th>
<th>No. 2</th>
<th>Difference</th>
<th>No. 3</th>
<th>Difference</th>
<th>Remarks</th>
</tr>
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<tbody>
<tr>
<td>5th</td>
<td>8 77</td>
<td>15</td>
<td>5</td>
<td>10</td>
<td>5</td>
<td>15</td>
<td>40</td>
<td>Ditto</td>
<td>Light clouds, sun shines,</td>
</tr>
<tr>
<td></td>
<td>9 78</td>
<td>15</td>
<td>35</td>
<td>25</td>
<td>485</td>
<td>210</td>
<td>165</td>
<td>Ditto</td>
<td>Ditto light breeze,</td>
</tr>
<tr>
<td></td>
<td>10 75</td>
<td>185</td>
<td>170</td>
<td>215</td>
<td>380</td>
<td>165</td>
<td>375</td>
<td>Sun shines,</td>
<td>Sun shines,</td>
</tr>
<tr>
<td></td>
<td>11 77</td>
<td>345</td>
<td>160</td>
<td>165</td>
<td>85</td>
<td>610</td>
<td>130</td>
<td>Bright sun-shine, light air,</td>
<td>Bright sun-shine, light air,</td>
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<tr>
<td></td>
<td>12 79</td>
<td>475</td>
<td>130</td>
<td>130</td>
<td>120</td>
<td>695</td>
<td>85</td>
<td>Ditto</td>
<td>Ditto,</td>
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<tr>
<td></td>
<td>13 80</td>
<td>630</td>
<td>5</td>
<td>660</td>
<td>105</td>
<td>695</td>
<td>85</td>
<td>Ditto</td>
<td>Ditto,</td>
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<td></td>
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<td>15</td>
<td>715</td>
<td>25</td>
<td>715</td>
<td>25</td>
<td>Ditto</td>
<td>Ditto,</td>
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<td>15</td>
<td>740</td>
<td>5</td>
<td>720</td>
<td>110</td>
<td>Squalls all about,</td>
<td>Squalls all about,</td>
</tr>
<tr>
<td></td>
<td>16 82</td>
<td>680</td>
<td>15</td>
<td>745</td>
<td>5</td>
<td>710</td>
<td>60</td>
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<td>735</td>
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<td>150</td>
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<td>240</td>
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<td>220</td>
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<td>75</td>
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<td>185</td>
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<td>170</td>
<td>90</td>
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<td>170</td>
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<td>Sun shining occasionally,</td>
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<tr>
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<td>14 72 27</td>
<td>-340</td>
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<td>165</td>
<td>60</td>
<td>165</td>
<td>60</td>
<td>Ditto</td>
<td>Ditto,</td>
</tr>
<tr>
<td></td>
<td>15 70 27</td>
<td>505</td>
<td>100</td>
<td>510</td>
<td>75</td>
<td>520</td>
<td>85</td>
<td>Sun shining occasionally,</td>
<td>Sun shining occasionally,</td>
</tr>
<tr>
<td></td>
<td>16 78 26 75</td>
<td>660</td>
<td>85</td>
<td>660</td>
<td>125</td>
<td>660</td>
<td>125</td>
<td>Ditto</td>
<td>Ditto,</td>
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<tr>
<td></td>
<td>17 81 27</td>
<td>520</td>
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<td>585</td>
<td>125</td>
<td>585</td>
<td>125</td>
<td>Light clouds,</td>
<td>Light clouds,</td>
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<td></td>
<td>18 81 27</td>
<td>590</td>
<td>75</td>
<td>560</td>
<td>105</td>
<td>590</td>
<td>105</td>
<td>Cloudy,</td>
<td>Cloudy,</td>
</tr>
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<td></td>
<td>19 81 27</td>
<td>660</td>
<td>5</td>
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<td>660</td>
<td>10</td>
<td>Ditto</td>
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<td>21 79 27</td>
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<td>35</td>
<td>645</td>
<td>40</td>
<td>635</td>
<td>40</td>
<td>Ditto</td>
<td>Ditto,</td>
</tr>
</tbody>
</table>

N. B. In this table Zero is to be taken between the signs, + & —.
It may, however, be proper to mention, that notwithstanding the great regularity which appears to prevail between the rates of going of these hygrometers, whenever the atmosphere was uncommonly moist, the exquisite sensibility of the stem required to be checked; for, as it would sometimes, during a heavy shower, revolve a whole revolution, it was not to be expected, that the three instruments would keep pace, whilst moving so briskly. A silk thread was therefore fastened, at each end of the index, loaded with a thin plate of lead, hanging loose on the bottom of the box, so as to be dragged by the straw as it went round. By these means, the instruments were easily regulated.

EXPERIMENT IV.

APPLICATION of heat, to determine the compass of the instrument.

Having fixed a stem, of 6 twists, in such a manner as to admit it; I brought a bar of heated iron, as close to the stem as could be done, without setting fire to the apparatus; on which the index revolved, 2 revolutions and 105°, from right to left, when it became quiescent. That is, the heat of the iron affected it no longer in that direction, and was barely sufficient to keep the index from falling back.

The heated bar being withdrawn, the index began to recede; and became quiescent again (that is in its natural position) after having returned 290°.

But the three hygrometers, whose rate of going is given in the preceding table, had moved meanwhile 204° towards it; and therefore this quantity is to be added to the above,
Namely 290°
\[\frac{+204}{494} = 1 + 134°\]

\textit{Whence} it will appear, that since the index had moved, by the application of heat,
\[\frac{2 + 105}{2} = 825°\]
and that, by cooling, it only recovered \[1 + 134 = 494\]
it follows, that the stem, by being deprived of its radical moisture, lost a power \[= 331°\]

\textbf{EXPERIMENT V.}

\textit{Application of moisture.}

As soon as the index of the same stem gave signs of proceeding regularly with the hygrometers, a hair pencil, full of water, was applied, and held to the stem; when it revolved \[6 + 295°\] from left to right, and then remained quiescent. On the pencil being withdrawn, the index began to recede, and resumed the course of the other hygrometers, after revolving \[6 + 300°\].

But, during the interval of this experiment, the left had moved 135°, in the same direction with that under observation, which quantity is therefore to be subtracted.

Namely \[6 + 300\]
\[\frac{-135}{6 + 165}\]

\textit{Again,} we have seen, that by the application of extreme moisture, the index had revolved, \[6 + 295°\]

\textit{Hence} it will appear, that this process \[6 + 165\]
affected the fibres of the stem by, \[130°\]
The thermometer, at the beginning of this operation, was 77°; and at the end 79°.

From the above experiments, it will appear, that, since by the application of extreme heat (procuring extreme dryness) the index had revolved, from right to left $\frac{2+105^o}{8}$ and, by the application of extreme moisture, from left to right $\frac{6+295}{2}$ it follows, that the sum of these two quantities, viz. $=9+4^o$ is the compass of the stem.

This result evinces, that the mean state of the atmosphere does not correspond, nor can it on any occasion, with the mean of the power of this instrument. — (2)

A second stem having been selected, and the same process, as above related, repeated; it moved by extreme heat $2+290^o$, and by extreme moisture $8+320^o$; so that the compass of this fibre was $11+250^o$; which exceeded that of the former by $2+210^o$; but, on examining it closer, after the operation, it was found that, although taken of the same length, it contained one twist more than the former; which accounts for its greater compass.

EXPERIMENT VI.

Application of Steam.

Three stems having been selected, and being fixed as usual, the steam of boiling water, issuing from the spout of a tea kettle, was applied to one of them; when it moved, from left to right, with violent convulsive mo-

(2) The stem, which was used for this experiment, was afterwards compared, when made up, with other hygrometers; and it did not appear to have lost of its activity, by this process.
Terrestrial Refraction.

tions (so rapid as hardly to admit of counting them) 6½ revolutions; the 2d, 6; and the 3d 6½; when they remained quiescent.

Now, we have seen above (exp. IV.) that a stem, of this length and number of twirls, revolved in that case 6+300°; and in the present, nearly 6+180 (on a mean of three.) The application of steam, therefore, if we consider the small difference of the two results, may be conceived to have affected the stem, only in as much as it moistened it.

Several other experiments were also tried, but being of the same nature as the foregoing, and the results nearly similar, they need not be particularized.
II.

Description of a very sensible hygrometer,

BY LIEUT. HENRY KATER,

H. M. 12th Regiment.

In the Mysore and Carnatic is found a species of grass, which the natives call, in the Canarese language, Ooeena hooloo, in the Maratta, Gavataa foe cooflee and in Tamul Yerudoovaal pilloo.* It is met with, in the greatest abundance, about the month of January, on the hills; but may be procured in almost every part of the country, and is very generally known.

Accident led me to remark, that the bearded seed of this grass possessed an extreme sensibility of moisture; and, being then in want of an hygrometer, I constructed one of this material, which on trial far exceeded my expectations.

I caused a box to be made of brass, four inches in diameter, and an inch and half in depth. Within the box, about a quarter of an inch from the top, was a flat ring, three tenths of an inch in breadth, and divided into a certain number of equal parts. A hole was made, through the center of the bottom of the box; and a circular plate of brass, about an inch in diameter, was rivetted to the bottom. On the outside, a notch was made in the rivet, similar to that in the head of a common wood screw; so that the circular plate, within the box, could be turned round, at pleasure, by means of a turn-screw, applied to the notch on the outside.

* It is the Andropogan Contortum of LINNAEUS, and may be easily distinguished from all others, by the seeds attaching themselves to the clothes of those who walk where it grows.
A very sensible Hygrometer.

A seed being chosen, the top of it was cut off, it having been found by experiment to be perfectly insensible. A straw, the lightest that could be procured, two inches and a half in length, and coloured at the end intended to be the index, was divided longitudinally, in the middle, by the point of a fine pen-knife: the knife was then turned a little on one side, till the opening was wide enough to admit the beard of grass; which being inserted, and the point of the knife withdrawn, the straw closed, and held the beard of grass sufficiently firm.

Not being able to procure workmen, capable of executing what I wished; the hygrometer, thus prepared, was fixed in a rude manner, to the circular plate at the bottom of the box, by means of a piece of sealing wax, in which a very small hole had been made, with a hot wire. The beard of grass being placed in the hole, it was closed, by touching the wax on one side with a heated wire, taking care to set the grass as upright as possible.

It remained now to determine the extremes of dryness and moisture, and to fix on some mode of division, by means of which this hygrometer might be compared with any other.

A new earthen pot was made very hot, by putting fire within, as well as around it; and when it was supposed to have been sufficiently burnt, to be perfectly free from moisture, the fire was taken from the inside, and the pot suffered to cool, till the air in it was of the temperature of 160°, but not lower. The hygrometer was then placed in the pot, being kept from touching the bottom, by means of a piece of dry wood; and it remained there nearly an hour; long before the expiration of which time, the index was perfectly steady. The hygrometer was then quickly taken out of the pot, and the circular plate, carrying
the whole, was turned round, by means of the notch on the outside, till the index, or coloured end of the straw, pointed to Zero.

To obtain extreme moisture, it was at first thought, that the best mode would be to fill the box with water; but, on trial, this was found to disturb the index too much. The beard of grass was therefore thoroughly wetted, with a fine hair pencil dipt in water, and the number of revolutions, made by the index, observed. Care was taken, to allow sufficient time, for the water to have its utmost effect; and in this manner, the hygrometer I have at present was found to make three and a half revolutions, between extreme dryness and extreme moisture.

As some fixed mode of division is necessary, to render observations, made by different persons, intelligible to others; I imagine the scale of this hygrometer to be divided into 1000 equal parts, commencing at extreme dryness.

The sensibility of this instrument is very great. The effluvia of a finger, applied about a quarter of an inch from the grass, causes the index immediately to shift eighteen divisions; and on withdrawing the finger, it instantly returns to its former situation. Gently breathing on it, at the distance of about a foot, moves the index fifty six divisions. It is equally susceptible of the moisture of the atmosphere; scarcely ever remaining steady, for any length of time, in variable weather.

Such was the construction I at first employed; but on applying it to use, so much difficulty occurred, in ascertaining the number of revolutions, made by the index, that I was induced to attempt to give the whole a more convenient form, and to adapt to it a scale, such as might preclude the possibility of mistake, and at the same time, leave the hygrometer in possession of its extent and sensibility.
A B C D fig. 1. represents a piece of wood, about fourteen inches long, three inches broad and one inch and two tenths thick; the upper part is cut out, as in the figure, to the depth of two inches, leaving the sides A and B, about three tenths of an inch thick: the wood, thus prepared, is morticed into a square board, which serves as its support.

Fig 2. is an ivory wheel, * about an inch and two tenths diameter, and two tenths of an inch broad at the rim. A semicircular groove is made in the circumference, of such a depth, that the diameter of the wheel, taken at the bottom of the groove, is one inch. Through the axis, which projects on one side four tenths of an inch, a hole is made, the size of a common sewing needle; and on this, as a center, the wheel should be carefully turned; for on the truth of the wheel, the accuracy and sensibility of the instrument chiefly depend. From the bottom of the groove, a small hole is made, obliquely through the side of the wheel, to admit a fine thread. All the superfluous ivory should be turned away, that the wheel may be as light as possible.

Fig. 3. represents a piece of brass wire, two inches long; on one end of which, a screw is made, an inch and a half in length; and in the other a notch is cut, with a fine saw, to the depth of half an inch. This part is taper'd off, so that the notch, which is intended to hold the beard of grass, in the manner hereafter described, may be closed, by means of a small brass ring (a) which slides on the taper part of the wire.

A little below the centers of the semicircles A and B. (fig. 1.) two holes are made, precisely in the same direction: one of these is intended

* In my first experiments I used a wheel made of card paper, with an axis of wood, which answered very well.
to receive the screw fig. 3, and the other a gold pin, which is to project four tenths of an inch beyond the inside of the part A. The pin is made rather smaller than the hole in the axis of the ivory wheel, and is highly polished; in order that the motion of the wheel may be the less impeded by friction.

Two fine threads, about fourteen inches long, are passed together through the hole in the groove of the wheel, and are prevented from returning, by a knot on the outside. To the ends of these threads, two weights are attached, exactly similar, and just heavy enough to keep threads extended.

One of the threads having been wound on its circumference, the wheel is to be placed on the pin, about the tenth of an inch from the side A, as in fig. 4. Two glass tubes, of a sufficient bore to admit the free motion of the weights, are fixed in grooves, in such a manner, that each thread shall fall exactly in the axis of the tube. The tubes are so long as nearly to touch the ivory wheel.

The beard of the Oobeenahooloo being prepared, as for the circular hygrometer, by cutting off that part which is useless, is inserted about the tenth of an inch, in the projecting end of the axis of the wheel, and confined by a small wooden pin, which is to be broken off close to the axis; the other end is placed in the notch of the brass screw, before described, and secured by means of the sliding ring.

It is evident, that when the grass untwists, the wheel will turn on the gold pin; and the thread, which is wound about it, with the weight attached, will descend in the one glass tube; whilst, on the contrary, the weight in the opposite tube will ascend, and vice versa.
The beard of grass is now to be thoroughly wetted, with a hair pencil and water, and when the wheel is stationary, the weights are to be so adjusted, by turning the brass screw, that the one shall be at the top, and the other at the bottom of the glass tubes, which points will mark extreme moisture.

The instrument must then be exposed to the sun, or to some heat, not powerful enough to injure it, but sufficient to obtain a considerable degree of dryness. The weights will now change situations; and probably, on the first trial, will continue to move beyond the glass tubes. Should this happen, the beard of grass is to be shortened, by sliding back the ring, and advancing the brass screw, so as to include a longer portion in the notch. Other trials are to be made, and the length of the grass varied, till the extremes of dryness and moisture are within the limits of the glass tubes.

As this instrument cannot conveniently be exposed to so high a temperature, as is necessary to obtain extreme dryness; this point may be ascertained by means of a standard circular hygrometer. The point of extreme moisture has been already determined; and in the circular hygrometer, the number of revolutions, &c. between the extremes is known. The two hygrometers are to remain some time together, that they may be in the same state with respect to moisture; marks are then made, where the weights rest in the glass tubes, and the degrees shewn by the index of the standard hygrometer noted. Lastly, the distance between these marks and extreme moisture, is to be divided into the same number of equal parts, as are indicated by the standard hygrometers and the divisions continued, to the number denoting extreme dryness.
If the whole of that part of the Oobena hooboo, which possesses the hygroscopic property be used, the scale will comprize more than twenty four inches, a length, which though perhaps useful on particular occasions, will not be found convenient for general purposes.

From an idea, that in a high state of moisture, the grass would not retain sufficient power, to move the wheel equably, it was thoroughly wetted, till it indicated extreme moisture, and while in this state, the wheel was drawn round, by laying hold of one of the threads: on releasing it, it instantly regained its former situation, with considerable force. The same experiment was made, in various other states of moisture, and it was always found, that the weights returned immediately to the degree from which they had been removed.

It would perhaps be an improvement, if a light wheel, of brass, or any other metal, not liable to rust, were used, instead of the ivory one; the grass having been found, by experiment, to be capable of moving a wheel of lead. The axis of the wheel might be made very small, and supported on yokes, which probably would add much to the sensibility of the instrument.

I have as yet had no opportunity of comparing this with any other hygrometer; but it is simple in its construction, not easily disordered, and should seem, from the extent of its scale, to be particularly adapted to experiments, in which small variations of moisture are to be observed.

The hygrometer has been hitherto an instrument, rather of curiosity than utility. But from most accounts that we have, it appears very probable, that this instrument has more to do with the phenomena of refraction, than either the barometer or thermometer. If then we could obtain a
number of observations of apparent altitudes, together with data from which to calculate the true, noting at the same time the hygrometer, barometer and thermometer, perhaps some law might be discovered, which might enable us to ascertain the quantity of the effect of moisture on refraction. It was with this view the hygrometer above described was constructed; but not having yet had an opportunity of obtaining the requisite observations, it is to be hoped, they may be made, by those who are in possession of time and instruments, equal to the undertaking.
An Essay on the Sacred Isles in the West, with other Essays connected with that Work.

BY CAPTAIN F. WILFORD.

Essay II.

Anu-Gangam, or the Gangetic Provinces, and more particularly of Magadh.

The kingdom of Magadh in Anu-Gangam is the province of South Bahar, and is acknowledged to be thus called, from the Magas, who came from the Dwipa of Saca, and settled in that country, which was called before Cicatà; from which, its principal river, the Fulgo, is called Caculthis by Arrian. Magad'ha or Māgadh'ha is called Mokta in the Ayin-Acheri (1.) The Chinese, according to Mr. DeGuignes, call it Mokiato, and Mokito, and Kempfer says, that the Japanese call the country, in which Śācya was born, Magatta-koks, or country of Magatta. Arabian, and Persian writers, and travellers called it Mābād: for one of them, according to D'Herbelot, says, that the Emperors of India resided in that country. Mābad, Mābed and Tabet are, I conceive, derived from Mubād, which, according to the learned Hyde, is a contraction from Mughbād, or the learned among the Mughs, or Magas; and the author of the Dabistan calls a certain sect of Brāhmens, if not the whole of them, Māhbād. From Magadh'ha they made also Maiet, and Muiet. These appear generally as two different countries; but I believe, they are but one. Thus Maiotta, one of the Comorro Islands, is called by former European travellers Maiotte, and Magotte, answering to Maiet and Magadh'ha. The name is mentioned in the Peutingerian

(1.) Vol. 3d. P. 241. In the original लक and probably should be read Magata.
Tables, under the name of *Elymaide*; which appellation, being probably obtained through the information of Arabian travellers, and merchants, seems to be derived, either from the Arabic *El-i-maied*, the inhabitants of *Maied*; or from *Almaied*, in the same manner that they say *Al-tibet*, *Al-sin*. Former European travellers mention a country called *Mevat*, in the Eastern parts of India, and which can be no other than *Mabat*; and instead of *Modubæ* in Pliny, we should, probably, read *Mebeda*, answering to the *El-i-maied* of Arabian travellers. On the borders of *Elymaide*, toward the N. E. are the *Lymadi* mountains, near which were elephants in great numbers. *Magad'ha* proper is *South-Bahar*; but, when its kings had conquered, according to several *Purânas*, the whole of the Gangetic Provinces, (which they considered afterwards, as their patrimonial demesnes;) *Magad'ha* became synonymous with *Anu-Gangam*, or countries lying on the banks of the *Ganges*. The Gangetic Provinces are called to this day, *Anukhenk* or *Anonkhek* in *Tibet*; and *Endcác* by the Tartars; and they have extended this appellation to all India.

In Ceylon, according to Capt. Mahony, and in Ava, according to Mr. Buchanan, the appellations of *Páli*, or *Báli*, and *Magad'hi* are considered as synonymous, at least, when applied to their sacred language; which I consider, from that circumstance, to be the old dialect of *Magad'ha*: which is called also the kingdom of *Pohi* by Chinese writers. In India this name for *Magad'ha* is unknown: but its origin may be traced through the *Purânas*. Diodorus the Sicilian says, that *Páli-putra* was built by the Indian Hercules, whose name, according to Cicero, was Belus, and in Sanscrit *Bala*, or *Balas*, the brother of *Crishna*, more generally called *Bala-Ráma* and *Bala-
DEVA. BALA-DEVA built three cities, for his sons, which he called, after
his own name, BALA-DEVA-PATAN: but they were better known, under the
name of BALI-PURA, and MAHA-BALI-PURA, pronounced MAVELIVORAM
in the Deccan. One was on the Coast of Coromandel, south of
Madras; the second, in the inland country of Beder, in the Peninsula;
and the third, on the banks of the Ganges: this is acknowledged to
be Raja-grtha, or Raja-mahl, the royal mansion, or city; and which
we must not confound with Raja-grtha, the royal abode of old
SAND'HA. It is true, that according to some legends, current in the
Deccan, the founder of MAHA-BALI-PURA, was BALI the DAITYA, an
antediluvian: but other legends refer its foundation to BALA, the
brother of CRISHNA: and the principal circumstances of these legends
shew, that it is taken from the Purana; and that it is the story of
the wars of CRISHNA, and BALA, or BALA-RAMA with BANASURA,
who lived in the countries bordering upon the Ganges; and whose
place of abode is still shewn near Purannah; and about whom
many wonderful stories are related by the inhabitants. This BALI
is then the same with BALA, the brother of CRISHNA: and in Lexi-
cons, we find a certain ANGADA, said to be called also BALI-PUTRA in
a derivative form, or the son of BALA, or BALI; but in the Purana, he is
said to be the son of GADA, also a brother of CRISHNA, to whom he gave
the district of Ghazipoor, the true name of which, is GADI-PURA, from
GADA. The country of CANOUGE fell also to his lot; and from him, that
city is also denominated GADIPOR or GADA-PURA. VALI was also the
name of a chief of the monksies, and his son was equally called ANGADA.
BANASURA built three cities, which BALI took, and destroyed; and
then rebuilt, for his children, calling them after his own name BALI-PURA;
as GADA called his own place of abode GADI-PURA. The children of
Bala are not mentioned in the Purânas, and he is never called Bâli there: but it is admissible, particularly in composition. He is also called Hâla and Hâli: and Sâla-vâhana is more generally denominated Sâli-vâhana. Palliputra, or Palibothra, according to Diodorus the Sicilian, was built by the Indian Hercules; whose real name, according to Cicero, was Belus, from Bala, or Balas. His son was better known under the name of Bali-pûtra; as the founder of Patna, under that of Páatalî-pûtra, or the son of the Goddess Páatali: Angada, his surname, was given to him from the country of Anga, which had been allotted to him. Thus Magadha takes its name from the sage Mâga, who settled there. These three cities were to be destroyed by water, and this is true of Mahâ-bali-voram near Madras, and of Pâli-pûtra on the Ganges: the third is yet existing in the province of Beder in the Peninsula, and its name is Bali-griha or Bâli-pura. It is more generally known under the name of Muzaffer-nâgar. It is not far from Cundana-pura, where king Bhishma resided, and was the father of Rucmani, Krishna's legal wife. Cundana-pura is generally mistaken for Bali-griha, on account of its vicinity; and, of course, supposed to have been built by Bala; and it is but lately, that I have been able to rectify this mistake. The descendants of this Hercules, says Diodorus, did nothing, which deserved to be recorded: in this agreeing with the Puránics. The kingdom was restored to the posterity of old Sandha, who ruled there, for a long time, under the name of the Vârhadra-t'has, or children of Vrîhadra-thâ.

These are not then, the Bali-pûtras, or Pâli-bothri kings, who sat on the throne of Magadha, in the time of Alexander, and his successors. Before the conclusion of the great war, the conquerors gave
various districts to their friends. **Duryodhana** gave the district, about **Bhadrapoor**, to his friend **Carna**. **Krishna**, long before, had given the country, now called **Bhoja-pura**, to his friend and relation **Bhoja**; and **Bala-Rama** placed his family in the country about **Raja-mahal**: these were of course **Bali-putras**: but they could not be the **Bali-putras** of **Pali-bothra** kings, in the time of **Alexander**, and his successors. We are informed, in the **Bhagavata**, that king **Mahananda** assumed the title of **Bali**, and **Mahabal**: consequently his offspring, who ruled after him, for a long time, were **Bali-putras**: the kingdom of **Magadha** was called the kingdom of **Bali**, **Pali**, and **Poli**: the dialect of that country is, as before observed, indifferently called **Bali**, **Pali**, and **Magadhi** in Ceylon, and the Burman Empire, according to **Captain Mahony**, **Mr. Joinville**, and **Mr. Buchanan**. The city, in which the **Bali** or **Pali-putras** resided, was of course denominated from them, **Bali-putra**, or **Pali-putra**; and by the Greeks **Pali-bothra**, and, in the **Proutingerian Tables**, **Pali-putra**. Their patrimonial estate was called **Pali-putra-mandalam**, the circle, or country of the **Pali-putras**. This simple, and obvious denomination, was strangely disfigured by **Ptolemy**, who calls the city, **Pali-bothra** of the **Mandalas**; instead of saying that it was in the **Mandala**, or country, of the **Pali-bothras**, or **Bali-putras**.

Tradition says, that **Mahananda** built a country seat, on the banks of the **Sone**; round which, a small town was soon formed, and called **Mahabal-pura**, (or **Mawbelipoor** in **Major Rennell's Atlas**). There, I was looking, at first, for **Bali-putra**, or **Pali-bothra**. **Patna**, or at least a town called **Cusumapuri**, was built, according to the **Brahmamanda**, by king **Udasi**, grand father to **Mahananda**, about 450 B.C. It was then called **Cusumapuri**, or the flowery city, and **Padma-vati**,
or the city of the *Lotus*. Tradition says, that the old site of this city was at *Phulwari*, which, in the spoken dialects, signifies the same with *Casumá-puri*; but, the *Ganges* having altered its course, the city was gradually removed from *Phulwari*, to the present site of *Patna*; which was called also *Pātalí-putra*, from the son of a form of *Dēvi*, with the title of *Pātalí-devi*, or the thin Goddess. Her son was, in general, called *Pātalí-putra*, and the town *Pātalí-putra-pura*. I have shewn, in my essay on the chronology of the Hindus, that this city is called *Patale* by *Pliny*. It was called *Patisali* simply, at the time of the invasion of the Muslims, as it appears from *Ferishta*’s translation by *Colonel Dow*: and the inhabitants are considered there as robbers, and, of course, ranked with those of *Bhojepoor* and *Kuttehr*. The last district, formerly called *Cafere*, and now *Cutere*, is a *Purgunah*, a little to the west of *Benares*; and the inhabitants behave very well now; those of *Bhojepoor* are far from being radically cured of their evil propensities. When the Muslims took possession of *Patna*, many of the most obstinate robbers withdrew to *Deryapoor*, according to tradition, and were very apt to commit depredations occasionally; at least formerly.

It is said in the *Bhagavata*, that *Maha-Bali* resided at *Padmavati* or *Patna*; and one of his titles, in that *Purána*, is *Maha-padma-pati-Nanda*, or *Nanda* the great Lord of the *Lotus*. Like *Paráasu-Rama*, he either destroyed, or drove out of his dominions, the remnant of the *Cshettris*, or Military tribe, and placed *Sudras* in their room. These were the Baron of the land, who often proved troublesome, *Rāja Bulwant Sing*, the predecessor of *Chet Sing*, did the same, in the district of *Benares*, with the Zemindars, who represented the *Cshettris*.
and even pretended to be really so: from an idea, that it was impossible to improve the revenues, arising from the land-tax, under their management. MAHÁ-PÁDMA, or BÁLI, was born of a woman of the Sudra tribe. According to PTOLEMY, the country of the BÁLI-pútras extended from the Súnae, beyond Moorshedábad, as far as Rangámmat; which he places in their Mandálam, or country, under the name of Oreophontá, as I have shewn in my essay on the chronology of the Hindus; in the west, he mentions Sambaláca, now an assemblage of small huts, on a sandy islet, opposite to Parna, called Sambalpoo, and Sabelpoo in MAJOR RENNElL's Atlas.

II. THE NUBIAN Geographer, with RENAUDOT's two Musulman travellers, place together the countries of Háraz (Oríssa,) Mehráge, and Mábéd or Mâyed, Táfik or Tucha (now Díacá,) and Mougá, or the country of the Magas, or Müg, now Chittagong, Arracan &c. The country of Mehráge, says D'HERBELOt, is placed, by some, in the Green Sea, or Gulf of Bengal; and by others, in the Chinese Seas: and the Gangetic provinces, at least Bengal, were known under that name, even as late as the fifteenth century; for it is called Mahárájía, or Márarásia by NICOLO de CONTI, who visited that country. There were two countries of that name, which are occasionally confounded together: the first, at the bottom of the Green Sea, included Bengal, and other countries on the banks of the Ganges. The second comprehended the Peninsula of Malacca, and some of the adjacent islands, in the Seas of China. In these countries, the Emperors and Kings always assumed the title of MAHÁ-RÁJÁ, even to this day. Their country, in general, was called Zápáge or Zábája, which is a corruption from Jává, or Jábá, as it was called in the west; and was also the name of Sumátrá, according to
PTOLEMY, who calls it Jábá-diú, and to MARCO PAULO: In the peninsula of Malaca was the famous emporium of Zába: Zábája, in Sanscrit, would signify those Zába. The Empire of Zábája was thus called, probably from its metropolis Zábá, as well as the principal islands near it. Zábá was a famous emporium, even as early as the time of PTOLEMY. It remained so, till the time of the two Musulman travellers of RENAUDOT, and probably much longer. It is now called Bátu-Sábor, upon the river Johore, which is as large as the Euphrates, according to these two travellers; who add that the town of Cálabar, on the coast of Coromandel, and ten days to the south of Madras, belonged to the MAHÁRAJÁ of Zábája. The wars of this MAHÁRAJÁ, with the King of Al-Comr, or countries near Cape Comorin, are mentioned by the two Musulman travellers, in the ninth century: and, it seems, that, at that time, the MÁLAYAN Empire was in its greatest splendor. About two hundred years ago, the MAHÁRAJÁ of Bengal sent a powerful fleet to the Maldívian islands. The King was killed in the engagement, and the MAHÁRAJÁ's fleet returned in triumph to Bengal, according to DELAVAL's account. Tradition says, that the King of Lanca, which implies, either the country of the MAHÁRAJÁ of Zápáge, or Ceylon, but more probably the first, invaded the country of Bengal, with a powerful fleet; and sailed up the Ganges, as far Rangámatty, then called Cúsmá-puri, and a considerable place, where the King, or MAHÁRAJÁ, often resided. The invaders plundered the country, and destroyed the city. This happened long before the invasion of Bengal by the Musulmans, and seems to coincide with the time of the invasion of the Peninsula by the MAHÁRAJÁ of Zápáge. This information was procured, at my request, by the late LIEUTENANT HOARE, who was remarkably fond of inquiries of that sort; and to whom I am indebted, for several curious
historical anecdotes, and other particulars, relating to the geography of the Gangotic Provinces. It seems, that there was little intercourse, probably none, between India, and China, in former times. The first notice we have of such an intercourse, is that an Emperor of China, called Vouti, sent his General Tchang-kiao, with a retinue of a hundred men, to visit the western countries, such as Khorassan, and Meru-al-nahr. There he procured some information about Persia; and seeing rich articles of trade from India, his curiosity prompted him to visit also that country. He began his travels 126 B.C. and returned to China in 115. That there was a constant commercial intercourse, between China and India, and even Ceylon, about the beginning of the Christian Era, is attested by Pliny (1). The same passage establishes also a regular intercourse, between the Roman merchants and China, at that early period. This singular passage I shall infer here, as corrected by Salmasius; for Pliny's style is often obscure, from his fondness for quaint words, and expressions. A certain King of Ceylon sent once four ambassadors to the Emperor Claudius; and the chief of this embassy was called Rachtas, who being interrogated, whether he knew the Seres, or Chinese, answered "Ultra montes Emodos Seras quoque ab ipsis aspici, notos eum commercio. Patrem Rachtas commexec eò: advenis sibi Seras occurrere. Then Pliny says, Catera eadem que nostri negotiatores: fluminis ulteriori ripa merces positas juxta venalia tolli ab his, si placet permutatis." This I shall take the liberty to paraphrase in the following manner. Rachtas answered, that the Seres lived beyond the Humada, or Snowy mountains, with regard to Ceylon: that the Seres were often seen, or visited by his countrymen; and were well known to them, through a commercial intercourse. That his father had been there, and whenever caravans from Ceylon (and India I should sup-

(1) Pliny lib. 60. c. 220.
pose) went there, the *Seris* came part of the way to meet them in a friendly manner; which, it seems, was not the case with the caravans from the west, consisting of Roman Merchants. Then Pliny adds; as for the rest, and the manner of disposing of the goods, the *Seris* behaved to them, as they do to our merchants. *Rachia* is derived from the Sanscrit: *Raeshia* pronounced *Rācha* in the spoken dialects, and *Rāchya*, or *Rāchya* is a derivative from it. It is the name, or rather the title, of one of the heroes of the Purānas. Another derivative form is *Racshita*, and is the name of a priest of *Buddha* in Ceylon, mentioned in the sixth vol. of the Asiatick Researches; (1) where, according to the idiom of the spoken dialects, he is called *Rachita-Buddha*: and I suppose, that neither *Raeshia*, nor *Raeshita* can be properly used, but in composition. *Yarchas*, the name of a Brāhman, mentioned in the life of Apolloineus, is probably a corruption from *Rāchyas*. The Emperor Claudius began his reign in the 44th year of the Christian Era; and the predilection of the Chinese for the people of India, and Ceylon was very natural. Thus we see, that the people of that island traded to China, at the very beginning of our Era, and by land. There can be no doubt, that they went first by sea, to the country of Magadha, or the Gangetic provinces, where their legislator *Buddha* was born, and his religion flourished in the utmost splendor. There, they joined in a body, with the caravans of that country, and went to China, through what Ptolemy, and the author of the Periplus, call the great route from Palibothra to China. It was in consequence of this commercial intercourse, that the religion of *Buddha* was introduced into that vast empire, in the year 65 A.C. and from that Era, we may date the constant, and regular intercourse, between Magadha and China, till the extirpation of the religion of *Buddha*, and the invasion of the Musulmans.

The account given, by the son of *Rachias*, has nothing very extraor-

(1) P. 450.
ordinary in it, when the whole is considered in a proper light; and it shews the carelessness of the Greeks and Romans, in inquiries of that nature. The regard the Hindus have for the seven Rishis, or the seven stars of the great Bear, and which they saw so much above the Horizon, made them often look up to them, as well as to the Pleiades. From this circumstance, the Romans foolishly conceived, they never saw them before. They also often mentioned the star Canopus, for which the Hindus entertain the highest respect. The ambassadors of Ceylon were surprised to see the Romans consider the East and West, as the right and left of the world; and declared it was otherwise in their own country; and that the sun did not rise in the left, nor set in the right, according to their mode of reckoning. For the Hindus say, that the East is before, and the West behind; and the shadow of bodies must have been affected in the same manner. With respect to the moon's course, there is the bright half, and the dark half; which, in India, constitutes what is called the day and night of the Pitra. The day is reckoned, from the first quarter to the last; and this is called the bright half, or the day of the Pitra; the dark half is from the last to the first quarter of the next moon, and this constitutes their night. When Pliny says, that, in their country, the moon was seen only from the 8th to the 16th, he was mistaken; he should have said, that the bright half, or day of the Pitra, began on the eighth day, and lasted sixteen days, including the eight; and then began the dark half, or night of the Pitra; and, from these expressions, misconception, the Romans concluded, that the moon was not to be seen, in their country, during the dark half.

III. According to Mr. De Guignes, the king of Tientsin, or India, sent men by sea to China, carrying presents to the Emperor, in the years 159 and 161. The Chinese call India Shinto, and Indo, Sind, and Hind.
they call it also, Tientso, and divide it into five parts: middle Tientso, with North, South, East, and West Tientso. Mr. Deguignes says, they called India Mokiatô, and Polomuenkouè or country of Polomuen; Mokiatô, the Magatta of the Japanese, is Magad'ha, including all the Gangetic provinces; and it was called Polomuen, from the famous Emperor Puli-
mân, or Poloman, called by Deguignes, Houlomien and Holomiento. The Chinese gave the name of Magad'ha to all India; because their knowledge of that country, and their intercourse, was for a long time confined to Magad'ha, which is also called Anu-Gangam; distorted, by those of Tibet, into Anonkenk, and Andak by the Tartars, who have no other name for India. Thus, in the Empire of the Burmas, they call India Calingâharit, from Calinga, or the Peninsula of India, with which they are better acquainted: harit in their language, and krat in Sanscrit, signifies country; and the whole compound, the country of Calinga. The metropolis of India was situated on the banks of the Kengkia, or Hengbo, the Ganges. This river, says the same author, they call also Kiapili, because, I suppose, it enters India through the pass of Capila, called, in the life of Timur, Kupela.

The name of the Metropolis was Chapoholo-ching, Kissomophou-ching, Porou-ching, answering to Patali, Cusumâ-puri, the well known names of Patna. Chapoholo answers to Samalla, or Sambula, now Sumbulpour, written also Sabel-pour, and close to Patna; and is obviously meant for that city, by the Chinese, as well as by Ptolemy.

Another Chinese name for it, is Cutuklopolo, which I must give up, unable to reduce it to its original Sanscrit, or Hindu standard.

In the year 408, Yuegmai king of Kiapili, that is to say, of the countries bordering on the river Kiapili, or Ganges, sent embassadors to
China. He was a follower of Budd'ha, and his Hindu name was probably Yajña.

In the year 473, the king of the country of Poli sent also embassadors to China. The kingdom of Poli is that of Magadha; for Magadha, and Pâli, or Bâli, are considered as synonymous, by the people of Ceylon, Siam, and the Burmāhs.

In the year 641, the Indian king of the countries, belonging now to the Great Mogul, and included in the Mokio or Magadha Empire, says Deculenes, sent embassadors to China. The following year, the Emperor of China sent embassadors to him. His name was Houlomien, Pulimán or Loma, and he was greatly surprized at it. There the Chinese learned, that the Hindus called their country Mōhō-chintam, for Māhā-china-sīhāna; in the Peninsula, this word is pronounced Macchina.

In the year 617, the Emperor of Mokio, or Magadha sent again embassadors to China, as well as the king of Nipolou or Nepal. In the following year, Taitsong sent an embaflly to the king of Mokio, or Magadha. In the mean time, Houlomien died, and the whole country was thrown into confusion: he was a great warrior, and reduced all India, in the year 621, under his yoke. The name of his family was Kieslitie; which, for a long time, had been in possession of the throne. Puliman was the last of the kings of the royal family of Andh'ra. This family is considered, in India, as a spurious branch; which circumstance is fully implied, by the appellation of Caulateya in Sanscrit, of the offspring of the unfaithful woman, and from Caulateya is probably derived the Kieslitie of the Chinese. There is a Dynasty of Caulateyas barely mentioned by the Paurānics; and they are, probably,
the same with the And'hra-játicas, and the Kielitie of the Chinese Historians.

The And'hra kings, on the banks of the Ganges, were famous all over India, and in the west: for the And'hra tribe, or family, is placed to the north of the Ganges, by the compiler of the Peutingerian Tables, under the name of André-Indi, or Indians of the And'hra family, or tribe. After Puliman, the And'hra Bhrityas, according to the Puránas, or the servants of the And'hra kings, usurped the Government; and the Chinese Historians take particular notice of this circumstance.

It is declared, in several Puránas, that Maha-nanda, and his successors, resided at Padmāvatī, or Cusumāpuri, by which Patna is understood. But these are only epithets, and not the real name of a city: and always given, by poets, to favourite towns. Thus Burdwan was called Cusumāpuri; and Rangamati, near Moorshedabad, likewise; as well as the town of Husināpoor. It is remarkable, that, of the cities in India, once famous in the writings of the Greeks and Romans, few now are known under these names in India. Thus Taxila is a name unknown in India; and it was only after perusing the Puránas, for many years, that I found it barely mentioned, in one or two of them. It is the case with Tagara, the name of which is only found, in a grant, some years ago discovered at Bombay.

The kings of Magadha certainly resided very often at Patna, and latterly they forsook entirely Bāliputra; probably owing to the vicinity of Gaur, the Rājahs of which, when powerful, could not but prove troublesome neighbours: besides, the continual encroachments of the
Ganges, and the gradual, but constant, decay of the metropolis, occasioned by them, naturally obliged the kings, to look out for a more agreeable situation. Of the time of the total subversion of Bāla-putra, or Rāja-grīha, we cannot form any idea: but there is every reason to believe, it took place at a very early period; for Pāli-bothra is not mentioned in the Peutingerian tables: and Māgadha, or Patna, is pointed out, as a capital city, under the name of Al-māgadha, or Elī-maide, Al-maied.

IV. The trade of Pāli bothra, and of the kingdom of Māgadha, in its days of splendor, was astonishing; and is attested by Ptolemy, Arrian in his Periplus, and the Peutingerian tables. The same is attested by Chinese historians, and the two Mohammedan travellers. From Pāli-bothra to the Indus, there was the Royal road; and the distances, all along were marked with columns. There was another road, leading from Baroche, to Elymaide, Al maied, Al-muicet, and Al-mujat, or Patna called also, in Sanscrit books, Māgadha, as well as the country. This is mentioned in the Peutingerian tables, and the distance marked 700, which I take to be Brāhmeni coss, equal to 856 British miles. In the Peutingerian tables, Baroche is called Parieta, and the road to Elymaide leads through a place called Nincilda; the true name of which, I take to be Nila-cunda, the Blue pool, or rather the pool-cunda, dedicated to NIRA- 
GANTEŚWARA, OR ISWARA, WITH THE BLUE NECK. From Al-maied, there is another road, leading through the Burman Empire, Siam, and ending at Calippe, now Columbé, in the kingdom of Cambodia. According to the Peutingerian tables, this road went from Patna, first to the country of Colchi, called Chalcitis, or Chalcis by Ptolemy; and the distance marked is 625, which, being supposed to be coss, are equal to 742 B. miles. Near the Colchi country, in the tables, are placed the Sindi, equally.
mentioned by Ptolemy, and also a place called Pisauta, probably the modern Pitshini. Then, from Colchi to Thimara, probably the Tomara of Ptolemy, and the distance is 450 cols, or 565 B. miles. Then to Calippe, or Columpe, 220 cols, or 270 B. miles. This route was certainly known to Ptolemy; from whom we may collect a few more particulars. From Palibothra, this route went towards the east, to Sagoda, Authina, Salatha and Randamarctota. Sagoda is Sagow; on the western bank of the Burremporter, and in Lat. N. 24° 35', according to Mr. Burrow, in the fourth Vol. of the Asiatick Researches. This I mention, because it is not noticed in Major Rennell's Atlas.

Sagoda is the form of the possessive case in the western parts of India; and generally used instead of the first case, by the Greeks formerly, and modern travellers of the two last centuries. Authina is Eetnath, to the westward of Azmerigunge: Nonnus calls it Athené, and takes notice of its flowery shrubs (1): thence to Salatha, or Silhet. The next place is Randamarctota, which I suppose to be Ava, the real name of which is Amara-pura: it is called also Rádhun-pura, according to Col. Symes: and Randamarctota appears as a compound of both. Amara signifies the immortal gods: and Rádhun, or Rádhá, are rendered, in Lexicons, by (Amalaci) pure, (prápti,) complete, perfect, resplendent. Thus Rádhamara-pura, or Rádhamara-pura, will signify, the city of the pure and immortal gods. Instead of Rádhamara-puras, we may say Rádhamara-cota, or the fort of the pure and immortal gods. Amara-pur, Amar-cote, Amargan are generally used, the one for the other, in India. Before it became the capital of a vast empire, and in the beginning, it was probably called Amara-cote in India: but now, it would be improper to say Amara-cote, unless it were sanctioned by usance. The distance of Randamarctota from Salatha, in Ptolemy, corresponds pretty well: but

the proportional distances seem to point to some place much nearer. Randamar-cotta is obviously the name of a city; but, from Ptolemy's context, it was also the name of an extensive country, the capital of which is called Nardos; perhaps from Aniruddha, or from Náreda: for there are, in India, places called Anurodgur, and Náredcote. Nardos, or Nardon, is perhaps a corruption only, from Rádhán, the old name of Amarpuri, according to Col. Symes. As the Spike-nard does not grow in the countries to the east of the Burrampooler, according to Mr. Buchanan's information, no alteration is to be made in this passage from Ptolemy.

From the metropolis of China, says Ptolemy, there was a road, leading to Cattigara, in the same country of Cambodia, in a S. W. direction.

The Royal road, from the banks of the Indus to Palibothra, may be easily made out from Pliny's account, and from the Plu-tingerian tables. According to Dionysius Periegetes, it was called also the Nyssæan road, because it led from Palibothra, to the famous city of Nysa. It had been traced out, with particular care; and at the end of every Indian itinerary measure, there was a small column erected. Megasthenes does not give the name of this Indian measure, but says that it consisted of ten stades. This, of course, could be no other than the astronomical, or Panjábi cofs; one of which is equal to 1. 23 British mile.

Pliny's account of this Royal road is, at first sight, most extravagant; and of course, inadmissible. But on considering the whole, with due attention, we shall immediately perceive, that in the original, from which it was extracted, it consisted of two distinct accounts, or reckonings: the first was, that of the intermediate distances, between every stage; and the second, contained the aggregate sum of these distances, for every stage. Pliny, whose inaccuracy is notorious, selected out of them, only
a few distances, and stages, here and there: and I have presumed to present the whole, arranged in the following manner.

From the *Indus* and *Peoocolais*, Rom. Mil.

To Taxila, 60

Hydaspes, omitted 120

Acesines, ditto omitted

Hydraotes, ditto ditto

Hyphasis, 49 390

There ended Alexander's conquests, and a new reckoning begins

Hesidrus, 168

Jomanes, 168 omitted

Some add 5 miles,

Ganges, 112 ditto

Rodapha, 119 325

Calinipaxa, 167 500

some say, 265

Conflux of the Jomanes with the Ganges, omitted 625

they generally add 15 miles, (638)

Pathbothra, 425 omitted

Here we have, first, 390 miles, from the *Indus*, to the end of the conquests of Alexander; and thence, 638 miles, to the conflux of the Jumna with the Ganges; making in all 1028 miles, for the distance from the Indus to Allahabad. These distances were given in the original in stadia, which Pliny reduced into miles, at the rate of eight to one mile: and, by turning again his miles into stadia, we may easily find out the original numbers. Thus, his 1028 miles give 8224 stadia, at the
rate of eight to one mile. Again, these 8224 stadia, divided by ten, give 822.4 Cós, or 205.6 Yéjanas, equal to 1012 British miles: and Major Rennell, after a laborious and learned investigation, finds 1030 miles between the Indus and Allahabad, through Dehli. But the royal road, according to Pliny, from the context; and more positively, according to the Peutingerian Tables, passed through Hafsinapūr; which gives an increase, between the Indus, and Allahabad, of ten miles nearly, making in all 1040 miles.

Megasthenes gives twenty thousand stadia, for the distance from the Indus to Palibothra: some read only ten thousand; both numbers are obviously wrong; and Strabo tells us, that some, as Patrocles, reckoned only 12000; and this was the true reading in Megasthenes' itinerary. These 12000 stadia are equal to 1476 British miles. Now the distance from Allahabad to Sāncu-gūli, commonly called Sācri-gūli, or the narrow pass, and answering, I should suppose, with regard to its distance from Allahabad, to the western gate of Palibothra, several miles to the north, is 439 miles; which, added to 1040, give 1479 miles, for the whole distance, from the Indus to Palibothra. The numbers, in Pliny, give only 11624 stadia, instead of 12000; and there is a deficiency of 376 stadia, or 46 B. miles; part of which must be added to 425, the distance from Allahabad to Palibothra, and the rest to the first sum of 399 miles in Pliny, which is certainly too short: and instead of CCCXC, in the text, I should propose to read CCCCX, or 410: such transpositions of numeral letters are not uncommon in Pliny's text. This was the extent, says that author, of Alexander's conquests, from the Indus toward the East. We must not suppose, that they extended no further than the Hyphasis, which he crossed; for Phægelas, or Phægeus, was
king of the country beyond the Beyah, and as far at least as the Setlej, if not as far as Serhind. He submitted to Alexander with a good grace, and was graciously received by him. Phegeias was probably the name of the city he lived in; which is called to this day Pag-waráh, or Pagwálá, Phag-wará, and Phag-wála, between the Beyah and Setlej: Ser-hind is neither a Sanscrit, nor Hindi denomination: but it is an Indo-Scythian compound, and signifies the limits, or borders of Hind. The Cathrei, or Chátárs, were a Scythian tribe, as we may safely conclude from their features, and manners, in the time of Alexander; and even to the present day. The word Ser, or Sereh, is used in that sense in B'idugsihan, and the adjacent countries: and Ser-hind was probably the limit of the conquests of Alexander, though he never was there himself; as well as of the Persian dominions in India; that part of which was called Houd, according to the book of Esther: and that it was once so called, is attested by the natives to this day, who say, that it was formerly called Hud.

As I intend to write, expressly, on the marches of Alexander through India, (having all the materials ready for that purpose); I shall, now, content myself with exhibiting an attempt, toward the correction of the various accounts of this famous Royal, or Nysian road, from Pliny, the Ptolegerian Tables, Ptolemy, and the anonymous geographer of Ravenna.

From the ferry of Tor-Boich, or Tor-Beilam, (or the black Beilam,) on the Indus, to the westward of Peucolais, (now Pucauli, or Bir-wálá, called Pirhola, in the maps, and Parhe in the Ptolegerian Tables,) to Taxila, on the river Suvanna, (now the Sone, the Soamus for Soanu of Arrian). It is called, in Sanscrit, Tacsihila: and its true name is Taxha-Syála, according to the natives, who call themselves, Syálas. Its ruins
extend over the villages, called Rubbaut, and Pekkeh, in Major Rennell's map of the countries between Delhi and Candahár. The Royal residence is pointed out, by the natives, at a small village, near the river, and is called Syâla, to this day; and is a little to the north of Rubbaut. Tai-Syâla having been ruined, at an early period, by the Musulmans; it was rebuilt afterwards, under the name of Turruk-pehri; and a Perganah of that name is mentioned in the Ayin-Acheri. But this last has met with the same fate as the former.

Thence to Ratas, or Ruytas, called Rhodoses by Nonnus, in his Dionysiacs, who says, it was a strong place. It is called Rages, for Rates, in the Peutingerian Tables, and in the Purâñas, its name is Hridu, and that of its inhabitants Hridân.

According to the Peutingerian Tables, we have another route, which ought to join here. It comes from Arni, Aornos, or Attuck, and goes to Pileiam, (which appears to be transposed; or Ec-Bolima, from Ac-Beila, or Ac-Beilam, or the white Beilam, lands or shores, and now called Hazru).

Thence, to the ferry over the Jâlam, or Béhat, and Alexandria-Bucephalos, near which is a famous peak, called the mountain of the elephant, by Plutarch. (1) Its present name is Bal, Bil, or Pil, which in Persian, signify an elephant. It is famous, all over the western parts of India, for its holiness, and its being the abode of numerous penitents; the chief of whom, as well as the deity of the place, is called Bal-Nâth or Bil-Nâth. It is generally called Bal-Nâth-Thileh, or the mountain of the Lord Bal: another name for it is Joghion-di-tibbi, or the tower of the Joghis.

(1) Plut. de fium.
Thence, to the Acesines or Chandra-bhāga, and the town of Spatura of the Peutingerian tables, called Simtura by the anonymous geographer, and probably the same with Sadhorah. There appears to be a transposition in the numbers expressing the distances.

Thence to the Hydraotes, or Rāvi, (the Irāvati of the Purāṇas,) and the city of Laboca or Lobaca, mentioned by Ptolemy; and which is the present Lahore. Its true and original name is Lavaca or Lobaca, from Lava or Laba, the son of Rāma; and its present name is derived from Lava-wāra, the place of Lava or Laba. Its distance from Sangalā in Ptolemy, with its name, have induced me to suppose, that it is the same with Lahore, which is 53 miles to the east of the extensive ruins of Sangala, so called to this day: and the true pronunciation is Sangalā not Sangalā. There are two places in Ptolemy, one called Ḭāboča and the other Laboca, which I take to be the same place; the true name of which is Labaca: for the other is not conformable to the idiom of any of the dialects in India.

Thence to the Hyphasis, and afterwards to the Zaladrus, (the Śatōdara or Šatadru of the Purāṇas, or with 100 bellies or channels;) and to the town of Tahora in the Peutingerian Tables (now called, with a slight alteration, Tēhauora, and in the Purāṇas, Tihotra and Trigarta; there Semiramis, or Sami-devi, was born).

Thence to Ketrora, in the same tables, for Cṣhatri-wārā, or C'hetri-wārā, the metropolis of a powerful tribe of Cṣhetris, or C'hetris, who lived in a beautiful, and woody country. The famous Lacki Jungle, or forest, is what now remains, of these charming woods and groves. They are called Cetrī-boni, by Pliny, with the epithet of Sylvestres, or living in forests: and Cṣhatridana, in Sanscrit, and C'hetri-bān, in the spoken dialects, signify the forest of the Cṣhetris, C'hetri-wārā, or
Cetrora is now Thanesvar; in former times, the metropolis of these Ghatris.

Then to the Jumna at Cunji-Hora, and to the Ganges at Huslinapoor, or Hasina nagara, called in the West, and in the Ayin-acberi, Wustnaur, for Hasina-nora. It is the Bacinora, of the Peutingarian Tables, the Bashi-nera of the anonymous geographer, and the Storna of Ptolemy. In the Greek original, it was written BACTINOPA, Bascinora, altered afterwards into BACINOPA, and BACTPIANA, Bascinora, and Basfinora: and the latter was mistaken for Bashi-nera. Indeed the Greeks could hardly write Wustnora, or Wustinare, otherwise, than OYACTINOPA, or BACTINOPA, Ouafinora, Waftinora, or Basfinora: they chose the latter.

Hasina-nagara, commonly called Husin-apoor, is about twenty miles S. W. of Darinagar, on a branch of the Ganges, formerly the bed of that river. There remains only a small place of worship; and the extensive site of that ancient city, is entirely covered, with large ant-hills; which have induced the inhabitants of the adjacent country to suppose, that it had been overturned, or destroyed, by the Termites. In the Peutingarian Tables, we are presented with a route, leading, from Huslinapoor, into Tibet: the first stage of which, is Arate, called Heorta by Ptolemy, but transposed by him. It is Haridwar, or Hardwah, as it is corruptly pronounced by many: and in Arate and Heorta, we can retrace the original name Haro-za, or Hardwob. The second stage is Pharca, called Paraca by Philostratus, in his life of Apollonius; and placed by him in the mountains, to the north of the Ganges. Its present name is Pragh, often pronounced Parab, generally with the epithet of Deva, or Deo, Deo Pragh, or the divine Pragh. It is in the country of Sri-nagar, on the banks of the Ganges, and is a famous place of worship.
On the road from Hustindpoor to Allahabad, Pliny places the town of Rodapha, called Rapphe by Ptolemy. Its present name is Hurdowah or Hulduwah; for both are equally in use.

The next stage, according to Pliny, is Calininipaxa, the true name of which was Cālini-basa, implying its being situated on the Cālini, a river which retains its ancient name to this day: but the town is now unknown.

The next stage is Allahabad, called the town of Ganges, (or Gangoopoor,) by Artemidorus. All the intermediate distances, in Pliny, are erroneous, and inadmissible: thus he tells us, that from Rodapha, to Calininipaxa, there are 168 miles: but according to others 265; whilst some reckon 500. The distance, assigned by him, between the Sutluj and Jumna, amounts to 336 miles, which is a most gross mistake. The half, or 168 miles, reckoning from Tahora to Cunipoora, is pretty near the truth.

From Allahabad to Palibothra, the road, it seems, did lie along the southern bank of the Ganges: and in Ptolemy, we find the following places. From Allahabad to the river Tusfo, now the Tonse: and, eighteen miles from its conflux with the Ganges, in a S. W. direction, he places a town called Adidara, probably the same with Attersar, or Attersarour in the same place; and, about one mile and a half to the north of the Tonse. Thence to Cindia, now Cauntee, on the banks of the Ganges, and almost opposite to Goopygunge. But this place is out of the direct road: though it might not have been so formerly, on account of the continual encroachments, and shifting of the Ganges.

The next is Sagala, now Mirzapore, and connected with another called Sigala, or rather Sagala, now Monghir. The present Sanscrit
name of the former is Vind'hyavāsini, from the Goddess of that name, who is worshipped there, and who resides in the Vind'hya, or Bind mountains, as implied by her name. The common title of this tremendous deity, is Bhadra-Cālī, or the beautiful Cālī; though she by no means deserves that epithet. This place is supposed to communicate with the other Sagala or Monghir, through subterraneous passageways, opened by lightning; which sunk under ground at Vind'hyā-vāsini, and reappeared at Monghir, at a place dedicated also to the same Devī, though little frequented. This accounts for these two places having the same name in Ptolemy; though these names are now entirely unknown to the Hindus. But Bhadra-Cālī, and Su-Cālī are perfectly synonymous: the latter, however, is seldom used, as an epithet of that deity, except when persons, either male, or female, are denominated after her; then they never use Bhadra-Cālī, but they say Su-Cālī. Mirzapoor, is sometimes called the St'hān, or place of Bhadra-Cālī, which appellation is distorted into Patrigally, in the voluminous treatise of the religious ceremonies of different nations.

The other Sagala, or Monghir, is called Mudgalā, in Sanscrit, as I am told, in a derivative form from Mudga, its name in the imperial grant found there: for Mudga-giri signifies the hill of Mudga. In the Deccan, Ptolemy mentions two places, nearly at the same distance from each other, one called Petirgalā, and the other Modogulla. Madighir; or rather Modu-gir, is a very common name, for places, in the Peninsula, and also in other parts of India; as Madugar, near Jaypoor; Matgar, near Cotta, &c. The first part of this compound is found, in composition, with pura city, gīrī hill, grīha fort, vana, or bān forest, &c. thus we have Modu-pura, Modugiri, Modu-gir, Modu-vana, or Modu-ban, &c.
The Monghir was called Mudga-giri, Mudgala, and Sagala, is certain; and that Mirzapoor was denominated, equally, Bhadra-Cali, or Petri-gally, and Sagala, is equally so; like the two places in the Deccan, called Petir-gala, and Modogulla, by Ptolemy. In all the names of places, in which the word Modu is introduced, this word is uniformly interpreted pleasing, charming, from the Sanscrit Moda; thus Modu-ban signifies the beautiful grove: Modwa, the name of several rivers, implies their being delightful. Thus Moda-giri, or Modu-giri, in the spoken dialects, signifies the beautiful hill; Modu-gali, the beautiful path; thus Sancri-gali, now Sacrigulley, implies the narrow path. The word gali is not Sanscrit; but Sanscri is derived from Sancrina: and innumerable instances might be produced, of compound names of places, and even of men, in which one word is Sanscrit, and the other borrowed from the spoken dialects. In this case Modu-gali, Bhadra-gali, and Su-gali, imply equally the beautiful path, between a projection of the hills and the Ganges. Several places in India are denominated Su-golley, Sugolley, and Sucolley, from their being situated near a path, either through mountains, or almost impervious woods. Pliny seems to suppose, that the Royal, or Nyfstan road passed through Pacli, or Peucolais; but this is highly improbable. It went directly through the ferry of Aornos or Attaoch-Benares, to Nyf. Aornos, or Avernus, is probably derived from the Sanscrit Varana, pronounced Benares, in the spoken dialects. Father Monserrat, who accompanied the Emperor Acbar, in his expedition to Cabul, says, that that Emperor paid the greatest attention to the measurement of the roads, during his march; and that, instead of a common rope, he substituted Bamboos, joined together by iron links. He then says, that there were twenty six and one fourth, of these Cos, to
one degree: each Cos consisted, of course, of 1391. 77 feet, or 4637.26 yards.

V. From China, says Ptolemy, there were two roads: one leading to Baltra; and the other to Palibothra. The author of the Periplus has strangely disfigured this passage, or a similar one, from some other author. He says, that wool (I suppose some particular kind of it), and silk, were brought by land from China to Baroche, through Baltra, or Balkh; and then, down the Ganges, to Limyrica. He certainly meant, that the goods were sent, part to the well, through Balkh, and part to Palibothra; and from the latter, they were carried down the Ganges, and by sea, to Limyrica: this was, I suppose, the original meaning. The country of Limyrica is that of Muru, in the peninsula; called also, though improperly, Muru, Mur, and Muri; which, in a derivative form, becomes Muruka, and Murica; from which, Arabian travellers made Almurica, and the Greeks Li-myrca. In Sanskrit, but more particularly in the spoken dialects, the derivative is often used, for the primitive form. Thus they say, Bengala for Benga: and for Lar, they said, Larica, a district in Gurjarat. With regard to this track, from Magadha, and Palibothra, to China, the Ptolemaic Tables afford us considerable light. From the Palites, the Bolita, and Cabolita of Ptolemy, now Cabul, there was a road, leading through the mountains, north of the Panjâb, and meeting another road from Tahora, in the same country, ('still retaining the same name,) at a place called Aris, in the mountains to the north of Hari-dwar. These two roads are frequented to this day; and they meet at a place called Khama-lang, a little beyond what is called the Eyes of Mansarovar; which are three small lakes, and to the south of Bindu-sarovara, or Lancâ lake. This information I received, from several natives, who had travelled that way. The road
To Assacora, or Assaraco, a place in Tibet, mentioned by Ptolemy: there it met with another, from the Gangetic Provinces; and passing through Parthona, probably now Kerten, or Kelten, with the epithet of Kaifling, from which is probably derived the Paliaka of Ptolemy. This road, in the tables, ends at Magaris, corruptly for Thogaris, or Thogara, in Ptolemy; and now Tonker, near Lassa, on the river Calchew, (called, in the Peutingerian Tables, Calinciius.) The mountains to the north, are called by Ptolemy, Thaguri, and the inhabitants of the country, Itaguri. These famous mountains still preserve their ancient name, being called Tingri to this day. The road, from the Gangetic Provinces, is represented as coming from a place called Carstania, near the Ganges; and probably the Cartasina of Ptolemy, now called Carjuna, near Burdwan. Between this, and Assacora in Tibet, the tables place a town called Scobaru, which strange and uncommon name is still preserved, in that of Cusshabaru, (in the maps Cossabary,) near Jarbary, to the north of Dinagepoor. Cusshabaru is the epithet of a giant, living in the mountains to the north of India. His real name was Shulodara, and, from his insatiable and ravenous voracity, he is surnamed Cusshabar, and he is often mentioned in the Puranas. This was probably the rendezvous of the Caravans, from Taprobane, or Ceylon; which, according to Pliny, went by land to China. Rachia, the chief embassador of the king of Ceylon, to the Emperor Claudius, said, that his father had gone by land to China.

Abbe Grosier, in his description of China, says, that at Pou-cul, a village in Yunnan, on the frontiers of Assam, Ava, and Laos, people resort from the adjacent countries: but that the entrance is forbidden to foreigners, who are permitted to approach, no nearer than the
bottom of the mountains. There they exchange their goods for Te,
the leaves of which are long, and thick. They are rolled up into balls,
somewhat like Tobacco, and formed into masses, which are carried into
the adjacent countries, and even to this day to Silhet.

This trade was carried on, exactly in the same manner, 1600 years
ago, according to Arrian's periplus. On the confines of China, says
the author, there is a nation of men, of a short stature, with a large
forehead, and flat noses. They are called Sevadae, (and by Ptolemy
Basadae.) These come, every year, to the frontiers; not being permitted to
enter the country. They make baskets of certain leaves, as large as those
of the vine, which they sew together, with the fibres of bambus, called petri;
and fill them with the leaves of a certain plant, rolled up into balls,
which are of three sorts, depending on the quality and size of the leaves;
and are of course denominated balls of the larger, middle, and smaller
size; and are carried all over India. Petri could not be the name of the
bambus, but of the leaves, called in Hindui pātra. These leaves are pro-
ably those of the Dhāc tree, (1) used all over India to make baskets, and
made fast together, with skewers, from the fibres of the bambu, or other
similar plant. These Basadae were, in my opinion, a wandering tribe, still
called Bīsāti; (2), who live by selling small wares, and trinkets; for which
purpose, they constantly attend markets, fairs and such places, where
they think they can dispose of their goods. These Bīsāti, or Basadae,
from their features, must have belonged to some of the tribes living on
the eastern borders of Bengal, whose features are exactly such, as de-
scribed by the author of the Periplus. Mr. Buchanan, mentions two

(1.) Butea frondosa.
(2.) See Allan, Researches Vol. 7th. p. 466.
place, called Pale, perhaps Pou-cul, and Palaung, in the mountains to
the N. E. of Ava, where they pickle the Tea leaves, used all over the
Burman Empire.

There is another route, in the Peutingerian Tables, leading from
Tahora (or Tabaura, in Major Rennell's map,) to Elimaid, or Patna.
From Tahora to Palipotra, 250 cos; to the Ganges 500; to Elimaid, 250;
in all 1000 cos, or 1228 B. M. Here we see, that Palipotra can-
not be, either Patna, or Râjamaâl: besides, the distance is too great, in a
direct line. There are three towns, thus called, in India: the first, or
Pâli-putra, near Cabul, called Palpeter by Danville, is unconnec-
ted with this route. The second is Bâli-putra, or Râjamaâl, which is
too far to the eastward. The third is Pâli-putra, in the interior parts of
India, and is now called Bo-Pâl, or Bhu-Pâl. It is mentioned by
Ptolemy, under the name of Sri-Pâlla for Sri-Palli. This, I conceive
to be the Palipotra, of the Peutingerian Tables, and accordingly propose
the following correction. From Tahora to Palipotra, or Bopaul, 500 cos,
or 639 B. M. Thence to Elimaid, or Patna, 500 cos also. Between Tahora
and Palipotra, the route passed near the mountains of Daropanisus,
which are those of Dhâr. Between Palipotra and Patna, there is a sta-
tion ad Gangem, or near the Ganges: this station, I take to be Allahabad,
called the town of Ganges, in ancient authors: but then the distances,
either according to our correction, or without it, do not agree so well;
and probably there is a transposition.

I have mentioned before, the constant intercourse, both by sea and
by land, between the kingdom of Magad'ha and China, on the authority
of Chinese History; and their trade, to an island and kingdom, called Fon-
non, to the eastward of Siam, during the third and fourth centuries. This
was probably a Malay kingdom: but we cannot ascertain its situation. It seems that some Malay Emperors, and kings, as those of Zulfiqar and Founan, did what they could, to introduce trade and learning, into their dominions: but their exertions proved ineffectual; at least they were not attended with much success; and their subjects soon relapsed into their former mode of life. The Mohammedan travellers of Renaudot, speak of the power of the kings of Mabed; and declare, that they used to send, every year, embassadors to the Emperor of China, with presents: but that these embassadors were narrowly watched, on their entrance into the Chinese territories. They lived in peace with China, but were not subjects of its monarcke. These travellers consider Mabed, and Mujet, or Maied, as distinct countries; and there are some grounds for it; and it was perhaps so originally. The inhabitants of Asam were divided, formerly, into Cuy and Muj; and the appellation of Mujet may be derived from the Muj, whom I suspect, however, to be the same with the Magas, or Burmahs, who greatly imitate the Chinese manners. Thus, for Magog, they say Magiuge. After the death of Pulimán, the whole country was thrown into confusion, according to the Puranas, and Chinese Historians, as we observed before. One of his chief officers, called Olonachun, seized upon the kingdom: but was made prisoner, by the Chinese embassador, with the assistance of the Emperor of Tibet.

Then, say the Puránies, the And'hra-bhrityas, or servants of the And'hra kings, set up for themselves: but one, more fortunate, surpassed the others in power: his name was Ripunjaya, with the title of Vissvashurji, the thunder of the world. He exterminated the remnant of the Barons, or Ghettris: and filled their places with people of the lowest classes: he drove away also the Brâhmins; and raised, to the priesthood, men of the lowest tribes, such as the Caiwartas, boatmen and fisher-
men, Patua, Pulindas, and Madracas: but these Brāhmens were no better than Mlech'has, or impure, and base born men. These boatmen and fishermen, being used to live upon fish, would never give up their favourite food, when raised to the priesthood: and their descendants, the Bengal Brāhmens, live upon fish, even to this day. The same circumstance is mentioned in the Viṣṇu-Purāṇa. Then, afterwards, a Guptavansu, or obscure race, will reign, all over Anu-Gangam, or the Gangetic provinces; some in Sāceta, (or Oude) others at Padmāvati, (or Patna;) Prayāg, (or Allahabad) Mathurā, (or Muttra) and Canti-puri (now Cutwall, nine cos to the north of Gwalior.) Here no mention is made of Gaur in Bengal: and indeed, its kings are never noticed by the Paurāṇics.

VI. The following towns are placed, obviously, in the country of Tibet, by Ptolemy, and in the Peutingeriān Tables. Their names are Aris, Orosana, Aspagonara (or Aspacora,) Puliana (the same with Parntha,) Thogara, Abraganara, Oltorocoras, Solana, with the river Bautes (or Bautifus.) These are in the country of the Batae, (or Buitan,) seemingly limited to the districts round Laffa; which, it is highly probable, was originally the case. The situation of Aris is at the meeting of two roads; one from Tahora, and Hardwar (probably the Eorta of Ptolemy;) and the other from Cabul, through the hills. From the nature of the country, there is every reason to suppose, that the place, where they met, has not altered its situation. Thogara, at the other extremity, and on the river Calincius, is obviously the present Tonker, on the river Caltheu, near Laffa. The distance between Aris and Thogara, in the Peutingeriān Tables, arising from the intermediate ones, amounts to 175. But these cannot be miles, nor even cos: let us suppose them to be 157 yojanas, or 774 B. miles; which would be sufficiently accurate. From Aris, to Orosana, (the Thubraffene of the tables, and now
called *Ari-jun,* 40 yójanas, or 196 B. miles. Then, leaving *Chiron* (of the maps,) to the right; the route proceeds to *Aaspacora* (of which the present situation is unknown;) distance 52 yójanas, or 245 B. miles. Thence, to *Parthona* (probably *Carthona,* or *Cathona,* and, of course, the town of *Kelten* or *Kerten,* on the *Sampa;*) distance 36 yójanas, or 73 B. miles. According to *Ptolemy,* the horizontal distance, between *Aaspacora* and *Paliana,* is 47 B. miles; which, in a mountainous country, like this, must be greatly enlarged, to bring it into computed distance. *Kelten* is called also *Punjulin,* according to my friend, the late *Purangir,* who accompanied the *Lama* to *China;* and who greatly assisted me, in ascertaining the true pronunciation of the names of places in *Tibet.* *Paliana* is probably derived from *Punjulin,* and *Parthona* (or rather *Carthona,* from *Kelten.* From this place to *Thogara,* (or *Tonker,* 50 yójanas, or 245 B. miles; and the horizontal distance, according to *Major Rennell's* map, is about 150 B. miles. According to the *Peutingerian Tables,* a route branched out, from *Aaspacora,* towards *India,* and the *Ganges.* About seventeen years ago, I had a long conversation with *Purangir,* on the subject of *Aaspacora,* or *Aaspacora.* He told me, that *Gor,* *Khar,* and *Car,* were frequently used, in composition, in the names of places; and that *Aspa,* might be a corruption from *Sápâ,* *Sâpu,* which was a very common name of places, in *Tibet;* and that *Sápâ-gor,* or *Sâpu-gor,* *Sápâ,* or *Sapu-khar,* were perfectly idiomatical; though he did not recollect any place of that name. It struck me then, that this was also the name of a famous river, in that part of *India,* mentioned by *Ctesias,* under the names of *Sipa-choras,* *Hyparchos,* and *Hypobarus;* because it came, I suppose, from the country of *Sipa-chor,* in *Tibet;* the same is now called the *Teesah,* in *Bengal.* *Photius* has given us, in his *Bibliotheca,* an extract of this curious passage, from
CTESIAS, in general true, and correct, with a few wild, and extravagant notions as usual with him. There is a river in India, about one fur-
long broad, or two fladja, called Hyparcha. Pliny, who had seen
CTESIAS's works, long before Photius, says it was called Hypobarius,
and flowed from the north, into the Eastern sea, (or gulph of Bengal,
called, by the Paurânic, the eastern, as that, between Africa and India,
is named the Western sea). The mountains abound with trees, hanging
over the numerous streams, which flow through them. Once a year,
during thirty days, tears flow plentifully from them, which falling into
the waters beneath, coagulate into Amber. These trees, the Hindus
call Sipa-chora. In the country, about the sources of this river, there
is a flower of a purple colour, which gives a dye, not inferior to the
Grecian, but even much brighter. There is also an insect, living upon
these Amber-bearing trees, the fruit of which they eat; and, with
these insects bruised, they dye stuffs, for clofe vetures, and long gowns,
of a purple colour, superior to the Persian. These mountaineers, having
collected the Amber, and the prepared materials of the purple dye, carry
the whole on board of boats, with the dried fruit of the tree, which is
good to eat; and then convey their goods, by water, to different parts of
India. A great quantity they carry to the Emperor (the king of
Magad'ha), to the amount of about one thousand talents. In return,
they take bread, meal and coarse cloth. They fell also, their swords,
bows and arrows. Every fifth year, the king (of Magad'ha) sends them,
as a present, a vast quantity of bows, arrows, swords, and shields.

This Amber of CTESIAS is obviously the Indian Lacca, which has
many properties of the Amber or Elec trom. Till very lately, authors
differed, as to the production of this curious drug. Some imagined
that it was the indurated juice of cme trees. Others, that it was
produced by a sort of insect. This last opinion is the true one: and these insects, being bruised, make a powder, as fine as Coriander. These two opinions were current, in the time of Ctesias, who, most injudiciously, has blended them together.

To the trees, he has given the name of Sipa-chora; and to the river, that of Hyparchos, or Hypobarus: but Hyparchos is but a corruption for Sypa-chor. Sypo-bari is the Hindu name, answering to the Tibet one of Sypa-chor: for Bari or Barry, as it is written in the maps, is very frequently used, at the end of proper names of places, and signifies a limited spot of ground, an inclosure, and a garden.

It is more probable, that the river was thus called, because it came from the country of Sipa-gor, or Aspacer. Ctesias says, it was a Hindu name; and yet, the meaning of it he attempts to derive from the Persian, as most of his other Hindu etymologies: but, though he had spent seventeen years in Persia, it seems, he understood that language but very imperfectly; and, I think, he was peculiarly fortunate, in not forgetting his own. He accompanied the younger Cyrus, with the 10,000 Greeks, in the unfortunate expedition, in which that prince lost his life, in the year 491 B.C. Ctesias was taken prisoner, and, being a Physician, became a great favourite with Artaxerxes Mnemon. Sipa-gor was obviously on the road, between Arjun (or Aridson,) and Lassa; and which, according to P. Giorgi, branches out into three, which reunite again at Lassa. It is tolerably well delineated in the maps of the Lamas. The distance between Sipa-chor, and Ponjulina, as given, either by Ptolemy or in the Peutingarian Tables, does not agree, being certainly too short. But when we consider, that the geography of that country is yet in its infancy, and the want of ac-
curacy in Ptolemy, and in the Geographical works of the ancients, we shall not be surprised at it. It appears however, that Sibā-chor was situated in the beautiful valley of Tankya, near the streams which form the Teesah. There is a place called Sipā, on the road, from Nāpāl to Lāffa: but it is too near Nāpāl. Ptolemy places it on the river Bautes, or Bautisus, now the Bont-su: though Bot-su, or the water of Bot, or Bud tan, would be a very proper name for the Sanpoo. This, I believe, misled Ptolemy, who places Ašpocara on that river. The southern branch of this river, the real Bautisus, he derives from the country to the west of Aridson, and makes it pass through the valley of Tankya. The town, called by him Solana, is probably Ujulin, called Ujuk-link, in the map of the Lamas. Thus they call Punjulin, Punul-liang: but my friend Purangir assured me, that the true pronunciation of it, in Tibet, is Punjulin, with a nasal n at the end. The name of the country of Ottoro-cora, with a city of the same name, is pure Hindu: Attar-ghur, the eighteen forts, or Rājaships. It is the country of Nāpaul, now called the 24 forts, or Rājaships. I am informed, that Nāpaul proper consisted, originally, of eight forts, or Rājaships; in Hindu, At-ghur; perhaps, the Attacori of Pliny: for the number of vassal Rājahs, and tributary forts to Nāpaul, must have been constantly fluctuating. But, let us return to Cesias, and his account of the inhabitants of the southern parts of Bultan, which will be found remarkably accurate, (though received into Persia, 400 years, B. C.) a few wild notions excepted.

These people, says he, inhabit the whole range of mountains, as far as the Indus, to the westward. They are very black, but otherwise remarkable for their probity, as the other Hindus are in general; and
with whom there is a constant intercourse. They live by hunting, piercing the wild beasts with their darts and arrows; but they are also so swift, as to run them down. They have the head and nails of a dog, but their teeth are longer; and they bark like dogs, having no other language: yet, they understand the Hinduis, but express themselves by signs, and barking. They have also tails like dogs, but longer, and more bushy. The Hindus call them Calystrii, or Dog-faced.

This idle story originates, from their being swift-paced, and running down their prey like Gre-hounds. These Dog-faced Sylvans, are called Swána-mulchás, in the Puránas; in which we read also of tribes, with faces like horses, parrots, &c. in these mountains. But it was, however, a very appropriate hieroglyph, by which to designate these people. Thus the Ictyophagi, or fish eaters, on the coasts of Persia, are called in Sanscrit, I am told, Sir-matsyas, or fish-heads, and in Persian romances, Ser-mahi; which signifies the same thing. Calystrii seems to be derived, from the Sanscrit Câuleyaca-Siras, or Cauleya-Siras, with the heads of Gre-hounds.

They live upon flesh, dried in the sun: (and in Tibet they thus dry whole sheep, which they place upon four legs). The men never bathe: women only once a month. They rub their bodies with oil. (This is the practice in Tibet, and they use butter instead of oil). They generally live in caves: (this is the constant practice of the mountaineers, to this day, in winter: in summer, they live under tents, and in arbours.) Their clothes are of skins, except a few of the richest, who wear linen.

Beyond the sources of the Sipa-chora, is a tribe of men, black also; but they have no evacuations. They however, make a little water occasionally. Their food is milk alone, which they know how to
prevent from coagulating in their stomachs. In the evening, they excite a gentle vomiting, and throw up the whole. This strange narrative is not without foundation: many religious people in India, in order to avoid the defilement attending the coarser evacuations, take no other food but milk: and, previous to its turning into feces, as they say, they swallow a small string of cotton, which, on their pulling it back, brings up the milk, or those parts of it, which they consider as the Caput mortuum. This they make the credulous multitude believe: their disciples are ready to swear to it; and they have even deluded persons, otherwise of great respectability. I suppose they conceal themselves, with great address; and their evacuations cannot be very frequent, nor very copious; for they really live upon nothing else, but a very small quantity of milk: but certainly more (at least I should suppose so) than they do acknowledge: and the ceremony of the string they perform occasionally, before a few friends. I have known many of these people: they are all hermits, who seldom stir from the place they have fixed upon. There is one near the military lines, at Sicrowre, near Benares, on the banks of the Burna: hut, I believe, he is rather in too good case, for a man living upon so scanty an allowance.

The next place in Ptolemy, is Abragina, placed by him, to the S. E. or nearly so, of Paliana, and Aspaca. This I conceive to be the large district of Bregin, called also Bramahsong; extending from Napal, along the borders of India, and Asam, toward the east; and the capital city of which was called, also, by the same name. Ptolemy places a famous city, about 350 geographical miles, horizontal distance, from Thogara, to the eastward, under the name of Sera, the metropolis: but of what country? of the Seres? no surely; for they are not introduced into his maps. It
was obviously the metropolis of Serica, a derivative form, from Ser, the name of China, to this day, all over Tibet, and implying a country subject to Ser. This Serâ is, much more probably, the ancient, and famous city, called Dsiri, Siri, and Sera, to the S. E. of Laffa. Its real name is Cheri, or Tseri, according to several pilgrims, who had visited this famous place of worship. Between it and Tonker, Ptolemy places, about half way, a town called Dac-sata, probably in the kingdom of Tac-po, between Seri and Tonker.

There is another Bracmania, or Bragmania, in the Gangetic Provinces, mentioned by Palladius, in his account, in Greek, of the Bragmans. Calanus and Dandamis came from that country: and the latter is introduced, reproaching Calanus, with his desertion, who could not remain satisfied with the pure waters of the Tiberobaos, or Taberuncus. This river was to the eastward of the Ganges; for Dandamis, or Damâ-damis says, how can Alexander be called the conqueror of the world, whilst he has not yet crossed the Tiberobaos, or Tyberobaos: let him only go beyond the Ganges &c. The country of these sages was probably Tirhoot, in Sanscrit, Tri-bucta. This word has been distorted, various ways, which have very little resemblance with their primitive, and original form. The districts of Tirhut, consisted originally of three divisions: the first of which is called, to this day, Tirhut, or Tyroot; the second is denominated, Ti-Ru-hut; and the third, Ru-Ti-hut. These words are also pronounced Ti-Ru-buct, Ru-Ti-buct. Thus Sri-hut, is now called Silhet, and, by Arabian authors, Sarvat. Tribucta is derived from Tri three, and Buct, from a verb implying to foster; either, because there were three Râjas, fostering the whole country, or one Râja, who alone fostered the three districts, and we may say either Tri-bucta, or Tribhuc.
Its capital city is Durbungah, by many derived from Tir-buṣṭa, or Tīr-bhūc. From Tirbuṣṭa, and Tirbuṣṭa, the name of the river, Tiberoboas, or Taberuncus, may, possibly, be derived. Some learned Pandits derive the etymology of Dur-bungah, from Dewāra, or Dewar, and bangah: because the door, or gate way, of the palace of the king, was destroyed by the river, during the rains; and the palace was in consequence forsaken, as it had been recently built. From Dewāra-bangah, Dewāra-bangah, synonymous with Dewar-bāha, is probably derived the name of the river Tiberoboas, or Tiberobancus: for thus we should read in the original, instead of Tiberancus. The Bragmania of Palladius is probably the same with the Brassmania of the anonymous geographer: for the greatest part of Tribulc is in the Indian Serica of that author, and, of course, belongs to the Rājāship of Nāpāl. Mr. Danville was induced to suppose, that the country of Brassong was the Brassania of the anonymous geographer of Ravenna; because the French say, Brèmes, instead of Brāhmens; Tir-hut, called also Mīthila; and Māthīla; is famous, from the most remote antiquity, for the learning of many Brāhmenical families, residing there, even to this day. The appellation of Brassong is probably derived from a colony of Burmans, settled there. The language of these mountaineers has much affinity with the dialect of the Burmahs, according to Mr. Buchanan's vocabulary: Their country is called, in the Mahā-Bhārata, Varma-desa, and placed in the east, seemingly, in opposition to Sarma-desa, or Ethiopia. The names of Magadhā, or Mahed, have been distorted, by Persian and Arabian authors, into Māber, or the passage: because there is a passage, through it, to the adjacent countries: for the same reason, they have altered the name of Lahaur, into Rahwer, the road; because there is really a road through it. They say also, that the kings of Mahed were called.
Birdowal; which may be a corruption, from Vrish-bala, or Vraj-bala, pronounced in general, Brijbala, and Birjwala. This was also, one of the many names of Balin, the founder of the Dynasties of the Andhras, and Andhra-bhrityas.

VII. From Gauḍideśa, Gauḍi-varṣha, or Gaud-warṣha, its inhabitants are called Gastroi, by Arrian; their country Gendaris, by Diodorus the Sicilian, and Goryandis, by Nonnus, in his Dionysiacs (1), and this last comes nearest to Gauri-desa. This passage is really curious, and interesting. The poet is enumerating the various nations, which joined Dēriades, or Duryōdhana, and Morrheus, the Mahā-Rāja, in the great war. Then came, says he, those, who live toward the east of India, in the populous country of Encolla, the abode of warlike Aurora, and in the divine Goryandis, with its well cultivated fields. After them came those who inhabit the country of Oeta, the mother of long lived elephants, ranging through its extensive forests. Encolla is the country of Ucāla, now Orissa: formerly inhabited by a warlike race, at last extirpated by the Carnas, or kings of Magadhā, according to the inscription on the pillar at Bhuddaule. Ucāla, or Ud-cāla, implies the great, and famous country of Cāla: and, in the spoken dialects, as well as in Latin, Ud-cāla, may be pronounced Uc-cāla, as Ac-currere, for Ad-currere. Nonnus gives to Gaurideśa the title of divine, from its capital city, which was originally a place of worship, in a forest, dedicated to the goddess Gauri. From this circumstance, it is called Corygaza, by Ptolemy, from the Sanscrit Gauri-ghoṣha.

The country of Oita, or Oeia, is that of Oude, with forests in the northern parts, still abounding with Elephants. The town is situated on the Gagra, or Sarjew, called after it, the river Oedanes, or Oude river, by Strabo, who represents it as a large river, abounding with crocodiles, and dolphins, and falling into the Ganges. The town itself is called Athé-nagara, or the town of Athé, by Ptolemy. The geography of the countries to the north of the Ganges, in that author, is distorted in a most surprising manner; and every geographer since has been equally unfortunate, with regard to that country, till Major Rennell's time. All the ancient maps of India, in Thevenot's collection of travels, and in other authors, are equally bad: and Mr. D'Anville's description of this tract is by no means superior to that of Ptolemy; for he places Canouge below Allahabad. Fortunately, the names of these places in Ptolemy, being very little disfigured, may be easily brought again into their proper order and situation. The town of Athé (or Oeta) is Oude; Suan-nagara, for Suan-nagara, is the Nagara or town of Sewan, in Sircar Sarun; Caffeda is Cási, or Benares, with the mark of the Genitive case, according to the idiom of the western dialects. Thus Tavernier calls Sooty, Soutiki; and other travellers use Dacca-ca for Dhaka, Selampura, from the Sanscrit 'Sailam-pura', or the Stone-town or fort, and in the spoken dialects Pattar-ghar, is near Hardwar. The kings of Gauda were not known till the declension of the empire of Magadha: until then they were vassals, and tributaries. They extended, afterward, their dominions as far as Allahabad, and assumed the titles of Mahā-rājas; and Bengal is called Maaraizia, or country of the Mahā Rāja, by Nicolo de Conti, who visited it, in the fifteenth century.
Tradition says, that Buddha-sinha, emperor of Gaudā, was in possession of Benares, at the time of the invasion of the Musulmans; and this is confirmed by an inscription, found near Benares, some years ago, and inserted in the fifth Volume of the Asiatick Researches, but without a translation. It was written in the year of Vicramaditya 1083, answering to the year 1026 of the Christian Era. There it is said, that Sthi-rapāla, and his brother Vesantapāla, the sons of Bhupāla, king of Gaura, had erected a most sumptuous monument, still existing, at a place called Sarnāth, near Benares. This monument of Bhauddhiṣṭi kings is mentioned by Tavernier, who mistook it for a sepulchral monument of the kings of Bouton. Sthi-rapāla is mentioned, under the name of Dhiraṇapāla, in the list of the kings of Bengal, in the Ayin Aberi: by which it appears, that they pretended to be descended from Bhāgadvatā, the son of Naraca, King of Pragvyotia, now Gauhati, beyond Gwalpara, on the borders of Assam.

Naraca was put to death by Crīshna; but he restored the kingdom to his son Bhāgadvatā.

VIII. The country of Magadhā was thus called, from the numerous families descended from the sage Maga, the offspring of the Sun, and the grandson of the venerable Twashtāh in the west. They came into India, in the time of Crīshna, at the request of his son Samba. They settled in the province of Cīcāta, now South Bahar. There are two tribes of Brāhmen in India; those of Cunyācubha, or Canoge; and the Sacas, or Sācalas, thus called because they came from Sācam, or Sa-ca-dvipa. They are also called Magas, from their Sire Maga; and from them are sprung all the Magas, (or Mugs,) in the eastern
parts of India, the Burman empire, Siam, and China. I shall give an account of their origin, and emigration to India, when I come to treat of the white Island. The other Brāhmens, in India, are called Čanyācubha, because that was their first settlement, on their arrival in India. It is universally acknowledged, that the kings of Magadha gave every possible encouragement to learning; which they endeavoured to diffuse through all classes, by encouraging learned men to write in the spoken dialect of the country. Tradition says, that there were treatises, on almost every subject, in the Magadhi, Bāli, or Pāli, dialect, which are supposed to be still extant. I could not however procure any, and I believe, that they were doomed to oblivion, by the Brahmenical class, who by no means encourage the composing of books in the vulgar dialects. Should they exist however, they are to be found among the followers of Žina: and Major Mackenzie says, that these sectaries are in possession of a great many treatises, on different subjects. That this is the case, here, I am credibly informed: but the Žina are not of a communicative disposition: and I hope that gentleman will find them more tractable in the Peninsula. From that circumstance, the dialect of Magadha is become the Sanscrit of Ceylon, Siam, and the Burman empire: where it is called indifferently Bāli or Magadhi. Capt. Mahony writes that word Magee, and Mr. Buchanan, in his learned and interesting Essay, on the Religion and Literature of the Burman, calls it Magata. Both say, that it is the same with the Bāli, or Pāli, which last denomination prevails, through the countries of Ava, Siam, and Ceylon, though hardly known in India, where they call it Magadhi. According to Capt. J. Towers, the word Pāli is written, in Aracan, Pālit: where the letter T has a very peculiar sound. The country of Pali, or of the children of Pali, or Bāli, the same with Maha-nanda,
according to the Purāṇas, included all the country to the south of the Ganges, from the banks of the Soane, to the western branch of the Ganges.

The Bāli characters, either square or round, are obviously derived from the Sanscrit: but it is doubtful, whether in their present state, they ever prevailed, or were used, in any part of India. Among the numerous inscriptions in Bahar, only a few in that character have been found. One was kindly sent to me by Mr. Dick of the Civil Service. It was obviously written in the Burmah character, but I could not decipher it.

The Bards of Magad'ha were in great repute formerly, and they are mentioned under the name of Magad'has. They reckon three sorts of Bards in India: the Magad'has, or Historians; thus called, because those of Magad'ha were the most esteemed: the Sulas, or Genealogists; and the Bandis, whose duty was to salute, early in the morning, the King, or Chief, in selected phrase, and well chosen words; wishing him long life and prosperity. The usual name in India, for a Bard, is Bhat, vulgarly pronounced Bhat. It is not a Sanscrit appellation, though asserted to be derived from it. But the original name, as it was pronounced several hundred years ago, was Bārdāi or Bārdāhi, though some think it a different name, applied to the same class of people.

Bhat, or Bhat, is derived from the Sanscrit Vārta, or Barā; and which is the same with the English word and the German wort, a word. In the west, Bhats were equally called Barī, in Latin, and Bhārē in Welsh; they were also called Vates from sāri, fatus sum in Latin, the same with Vārta, the letter R being dropped, as in the vulgar dialects of India. They were also denominated Eubages, from the Sanscrit
verb Vacha or Bacha, to speak, which becomes Uvácha, and Ubácha, through various moods and tenses. Vacha, or Bacha, becomes also Bága, or Vága; hence the Irish word Bogh, rendered Logos, or speech, by General Vallancey. The word Bardai, or Vardai, comes obviously from the same root Várita; but my learned friends are of opinion, that it comes from Bhár-dánam, which signifies to burden with; because they are burdened with the internal management of the royal household: and this is the case, to this day, in Gurjarát; being next to the Pradhán, or prime Minister (called Pardon by Mr. Lord), though independent of him.

The famous Chandra, or Chanda-Bárdái, was Bard to Prithu-Rája, King of Dulli, whose wars are the subject of an Epic Poem, in the spoken dialect of Canoge, and of some antiquity, since it is mentioned in the Ayin-Acheri. He was a favourite of Devi, and was Tri-Cála, knowing the past, present, and future. The title of Bárdái is translated musician by Abul Fazil. (1) His functions, both in the field, and at home, were exactly those of the ancient Bard in the west: except, that, in India, a real Bard sings only, but does not play upon any instrument; this being the office of musicians, who do not sing. He took a most active part in the bloody war between Prithu Rája, and Jaya-Chan’dra, king of Canoge, and Mahá Rájá at that time, about a beautiful damsel given to the latter, by Vírabhadra, king of Ceylon; when Jaya-Chan’dra went in person, at the head of a numerous army, to force him to become tributary, and vassal of the Empire; giving out, that he was only going to worship at the place of Cánticéya-Swámi, in the fort of Sancara-ghar in Sinhala, or Ceylon; which place is resorted to, equally by orthodox Hindus, Baudháifs, and even Muslemans.

(1) Ayin-Acheri. Vol. 2. p. 120.
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He was accompanied by Carna-Daharya, king of Magadhâ. Prî-thu-Râja waged a long, and bloody war against Sultan Gori; but was defeated, and lost his life, in the year 1192. Part of the poem, in which Prî-thu Râja's wars with Jaya-Chandra, and Sultan Gori, are described, is in my possession.

The Bards of mortal men, are not mentioned in any Sanscrit book that I ever saw: only those of the Gods. The Siddhas, the Chârañas, and the Cinnaras are the three classes mentioned in the retinue of the Gods, beside the Purêhita, or high priest: the regent of the planet Jupiter enjoys that high office, among the Gods; and Sûcra, who presides over Venus, among the giants. The Siddhas are priests, and persons of uncommon learning, and deep knowledge, to whom nothing is impossible. The Chârañas, are really the Bards of the Gods: and were probably the same with the Saron class of Druids, called also Saroniades. The Cinnaras are historians; and the Chârañas are also acquainted with the genealogies of the Gods, and of mankind. The bards of mortal men were also called Chârañas, according to Abul-Fazil. Every great man, in India, had Bhats in his retinue: the practice is still kept up in Gurjarât; where they are highly respected to this day, according to my Pandit, who is a native of that country. The Bhats or Bhattas, and Chârañas, are mentioned by Abul-Fazil, in his description of Subah Gujarât. Their employment, says he, is to sing hymns, recite genealogies, and warlike songs in battle, to animate the troops. They acted also as heralds, as in the case of Chandra-Bardai. Abul-Fazil makes some difference between the Bhats, and Chârañas: but my Pandit says, that he never knew of any, Châraña being really the Sanscrit word for Bhat or Bhaâla. Chârana, their ancestor, is said to have sprung from the
sweat of Mahadeva, who intrusted him with the care of his Ox Nandi, who resides in the white Island. But I am told, that, in the Puranas, it is said, that they were born from the churning of the right arm of Vena, father of Prithu or Noah. Bards, in this part of India, being without employ, are become a most despicable race of men. They are more respected in the Deccan, according to Major Mackenzie, who says, that they are generally called Cavissars, from Cavyswarai, or the Lords of the Drama.

The Merchants of Magadha formed, not only a peculiar class, but also a particular tribe, called the Magadhí tribe. It seems, that they were bold, enterprising, and at the same time cautious, and circumspect: hence they are said to be merchants by the father's, and warriors by the mother's side, according to Mr. Colebrooke's account of the Hindu Classes. According to the Vishnu-Purana, the kings of Magadha originally resided at a place called Giri-Vraja, or Giri-Braja. Vraja is synonymous with Ghoshá, a herdsman, also the abode of a herdsman: and being situated in the hills, it was called Giri-vraja. From that circumstance, the kings of Magadha were, till a very late period, called Vraja-balas, or rather, in the spoken dialects, Vraja-wálas, or Braja-walas, distorted afterwards by Musulman writers, into Birdaoval, according to Herbelot, and Birdawal according to Abulfeda: who says, that it was also the name of their metropolis. Giri-Braja was situated in the province of South Bahar, among the mountains of Sivira, now called the Raja-gir, or the Royal mountains: but more probably the real name was Raja-gríha, from a place of that name, implying the Royal abode. It is erroneously written, in Major Rennell's atlas, Rargiara. This is acknowledged to have been one of their places of abode: for they say, that the royal
thron[e] was at a place called Asana, above Gáyá, on the river Balga, now Fulgo, called Caesius, by Arrian. Asana signifies a Royal seat, or throne: and Ptolemy mentions, also, a place of that name, Asana mára, or the destroyed throne. It is called Prácyotisha in the Puráñas, and its remains are near Go-háti, on the frontiers of Assam.

There, among the Rája-gríha mountains, the unfortunate Jara-sand'ha had a palace, near some hot springs, where he generally resided: some remains of it are to be seen to this day, and it is considered as a place of worship. The Pujá is there performed, first in honor of Crishna, and the five Pándavas: then with flowers in honor of old Sand'ha, and his son Sahadeva. There, in memory of this unfortunate hero, martial games are annually exhibited. They are performed with clubs, whilst drums are constantly beating. I am informed, that there is a statue of him, of an ordinary size, and seemingly of great antiquity. He is represented naked, with a club in his hand. Formerly the same games were exhibited, in his honor also, opposite to Patna, in a small island, called, from that circumstance, Sam-Mallaca, and Sambalaca by Ptolemy. They were then celebrated with great solemnity: people came from distant parts; and, during the time they lasted, a fair was held there. The games, the fair, and the place where it was held, were famous all over India, and the name of Sam-Mallaca became synonymous with Pátali-putra. It is now called Summalpoor or Sumbulpoor, and, in Major Rennell's atlas, Sabelpoor.

From the manner in which Jara-Sand'ha is represented there, and also from other circumstances, he is fully entitled to the epithet of Hércules, or Hara-acula, given to him by Nonnus in his Dionysiaca.
The Siňhālas, according to Capt. Mahony, say that Buddh'ha was born in the country of Muddadesā (Magad'ha-desa) in Dumba-deeva (Jam-bu-dwipa,) at a place called Cumool-val-poorée, (Camalá-vati-puri): and that he died at Cooœemapatoree (Cufumápuri) in the same country. Camalávati-puri is the same with Padmávati-puri, or the city of the Lotos; which we have seen is the same with Cufumápuri, now understood of Patna. It is added, that he died at the court of king Mallalel, which should be Mahá-ballala or Má-vallala, a very common name for kings. I have shewn before, that Cufumápuri, Padmávati, Camalá-vati-puri are epithets, and not proper names of places; and applicable, and generally applied, to the place of residence of great kings. Pátali-putra is never mentioned in the Puráñas, or Sanscrit books of any antiquity; and its grammatical name is Pátali-pura. As it was the metropolis of the Empire of Magad'ha, in latter times, and had also the emphatical name of Padmá-vati-puri given to it; every transaction mentioned, as having happened at Padmávati, was of course understood of the last known place under that name; and indeed, it was soon forgotten, that there were once several cities of that name in that country.
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Essay III.

Of the Kings of Magad'ha; their Chronology.

As the kings of Magad'ha were Lords Paramount, and Emperors of India, for above two thousand years; and their country the seat of learning, civilization and trade; a Geographical, and Historical description of this once famous country, cannot but prove both curious and interesting. By Magad'ha proper, South Bahar is understood; but, in a more extensive sense, it includes all the Gangetic Provinces, and is by far the richest and best part of the British Empire in Asia. It is also famous for having given birth to Budd'ha, and being, as it were, the cradle of the religion of one of the most powerful and extensive sects in the world.

The Chronology of its kings is connected with the period of the Cālīyuga: which consists of 432,000 years. This, the Hindus have divided into six unequal portions, or subordinate periods, called Sacas, because they derive their origin from six Sacas, or mighty, and glorious monarchs: three of whom have already made their appearance; and three more are expected. This system of the six Sacas, with their periods, is thus explained in the Jyotirvidābhāraṇa, an astronomical treatise. Whatever man kills 550,000,000 Sacas (a mighty tribe of Hereticks), becomes a Śaca; and whoever kills this Śaca only, becomes a Śuca also.

The first was Yudhishtīra, born on the Śata-Śringa, or mountain with an hundred peaks, at the extremities of the world; beyond which no body can go; his period lasted 3044 years. Then came the Era of Vicramāditya, the second Śaca, which lasted only 135 years. He was born at Tāmrā-vati-nagari, or the town abounding with copper. It is called Trambā, or Tambā-vati, in the spoken dialects. It no longer
exils, having been overwhelmed with a deluge of sand. It was near
Cambát; thus called from a place of worship, denominated Sí'hamba-títh'ha,
or with a Sí'hamba or pillar, called, in the spoken dialects, Camba. From
Sí'hamba, the Greeks made Aßta: and from Támra, (Tramba,) they made
Trápera, Campra, and Copra, Cober: and, as these two places are con-
tinuous, they said Aßta-Trápera, Aßta-Copra, Campra &c. Sometimes they
represented them as two distinct cities.

The third Sáca was Sálivjahaná, born at Sáleya-Dhára in the Deccan;
and his period will last 18,000 years. The fourth Sáca will be Vijayábhí
Nándana, who will be born at Su-Chitra-cúla; his period will last 10,000
years. Then, at Rohita (or Rotas,) will be born Nágarjuna; whose period
will last 400,000 years. Then will re-appear the antediluvian Bali, who
is to be born at Bhrigu-gosha, Barigaza, or Barouch: his period will last
only 821 years; when a general renovation of the world will take place.

The Hindus have thought proper to connect their chronology with
an astronomical period of a most strange nature. It is that of the seven
Risbis, or seven stars of the wain, which are supposed to go through the
Zodiac, in a retrograde motion, in the space of 2700 years. They are at
present in the Lunar mansion of Swálicá, according to the most famous
Astrologers of Benares, who cautioned me against the erroneous opinion
of other astronomers, in various parts of India, who insist that they
are now in Anurádhá.

I requested an able astronomer, to give me, in writing, an account
of this wonderful revolution. This period, says he, is not obvious to
the sight; but it does, however, really exist, being mentioned in old Sáf-
tras, and by holy Muni; and certainly the seven Rishis preside in every Lunar mansion, for a hundred years; and their presence, or rather influence, over it, is sufficiently obvious: and, according to Sācalya Muni, their yearly motion is of eight lipetas, or minutes.

In the Vardhi-sanhita, the Vijnū-Purāṇa, and also in the Bhāgavata, I believe, it is declared, that, at the birth of Parāśhita, the seven Rishis had been in Maghā for four years, or 4905 years ago; and they were in Purvāśhāra, in the time of Nanda.

But in the Brahma-Siddhānta, it is declared, that they were then in Sravāṇa, which makes a difference of fifteen Lunar mansions, or 1500 years: so that, according to that author, the Cali-yuga began 2405 years ago, or 1600 years B.C. supposing the seven Rishis to be now in Śvātikā, in which they are to remain ten years more; but, if they are in Anurādhā, the Cali-yuga began 1400 years B.C. The author of the Garga-Sanhita, according to Bhāttotpāla, in his commentary, seems to be of that opinion, when he says, that the seven Rishis were in Maghā, in the twilight between the Dwāpar and the Cali-yuga. In the Lalōcādhi-vṛddhi, it is declared, that they were then in Abhijit, or in the first of Sravāṇa.

The names of the seven Rishis, shining in the main, are Pulāha, or the star α; Cratu, β; Atri, γ; Pulakṣya, δ; Angiras, ε; Vāsishṭha, ζ; and, close to it, is a small star, representing Arundati his wife; the seventh is Marici, or η. My friends insist that their motion is perceptible; and they showed them plainly to me in Śvātikā. Of this they wanted to convince me, by drawing a line, from that mansion, through the stars β and δ, of the great bear. When they are in Maghā, then the line passes through this asterism
and the stars 3 and 2. By these means they could see them in every part of the starry heavens. When Nanda was born, they were then in Purvāśāṭhā, or about 400 years, B.C. and he died 327 before the Christian Era. Astrologers watch carefully their motion, because their influence is variously modified through every mansion: and whatever new married couple see them in a fortunate moment, they are sure to live happy together for a hundred years. Hence, says the ingenious Mr. Bailly, we may safely conclude, that no body ever saw them in that propitious moment.

The period of the seven Rishis begins to be neglected in the more northern parts of India, because they are not always to be seen at the lucky moment; and, in their stead, they use Dhrūva, or the polar star. This star is often mentioned in the sacred books of the Hindus, and it is connected with their mythology; but has not long been near enough to the Pole to be thus denominated after it: and, for a long series of years before, there was no Dhrūva or immovable star. Be this as it may, Dhrūva, with his relations, shines in the lesser bear. In the Yantra-ratna-vālayam, this constellation is called the fifth of Dhrūvalārahmanad'hiśa. It consists of thirteen stars: Dhrūva is in the mouth, and Uttanapāda, his father, in the tail. The mouth is turned toward Bharani, and its revolution is the same.

The wives of the seven Rishis are the Pleiades, at least six of them; for the Hindus do not know, that they were seven formerly. Agni fell in love with them; but his wife, dreading the resentment of the holy Rishis, assumed their shapes and countenances, and thus personifying
them, satisfied her husband's lust. She was however unsuccessful with regard to Arundhati, the consort of Vasishtha, on account of her extraordinary holiness and sanctity. Soon after, some scandalous reports prevailed, and the six other Rishis dismissed their consorts, and drove them out of their places, within the Arctic circle. They were intrusted with the education of young Cārticeya, who placed them in the Zodiac, after expelling Abhijit.

The Pleiades, according to Mythologists in the west, were intrusted likewise with the education of Bacchus, (who, according to Macrobius, was the same with Mars, or Cārticeya); and, on that account, he translated them into heaven. According to those writers, they suffered a real bodily pollution; and the seventh, says Hyginus, left her sisters, and fled to the region of the heavens within the Arctic circle; (1) and this is the Arundhati of the Hindus.

I have not been able to ascertain whose daughters the consorts of the seven Rishis were: neither did the western mythologists agree about it; though they supposed, in general, that they were the daughters of Atlas: but, as they never existed, it is a matter of little consequence. Thus we see, that, according to some, Yudhishtir, or Judhishter, lived 3100 B.C. and began his reign immediately after the Pralaya, or flood; like Xisuthrus, or Sisisthus; whilst, according to others, he lived between the years 1500 and 1370 B.C. like Sesostris.

The beginning of the Cali-yuga, considered as an astronomical period, is fixed and unvariable; 3044 years before Vīramaditya, or 3100 B.C. But the beginning of the same, considered either as a civil, or historical period, is by no means agreed upon.

In the Vishnu, Brahmānda, and Vayu Purāṇas, it is declared, that from the beginning of the Cali-yuga, to Mahā-Nanda's accession to the throne there were exactly 1015 years. This Emperor reigned 28 years; his sons 12; in all 40; when Chandragupta ascended the throne, 315 years B.C. The Cali-yuga then began 1370 B.C. or 1314 before Vicramaditya: and this is confirmed by an observation of the place of the Solsicles, made in the time of Parāsāra, and which, according to Mr. Davis, happened 1391 years B.C. or nearly so. Parāsāra, the father of Vyāsa, died a little before the beginning of the Cali-yuga. It is remarkable that the first observations of the Colures, in the west, were made 1353 years before Christ, about the same time nearly, according to Mr. Bailli.

In the same Purāṇas, it is also declared, that, from the Dynasty of the Nandas, to king Pulimān, there would elapse 836 years. Puloma, or Lomadi, called Poulomien, Oulomienc, and Oulomiento, in the annals of China, died in the year 648, according to De Guignes. This passage from the Brahmanda is obscure, being in a prophetic style: the words are, 'From the birth of Paricshita to Nanda (I suppose his accession to the throne) there will be 1015 years: from Nanda to Puloma and the Andhras, 836 years.' Nanda died 327 years B.C. and Puloma in the year 648, according to the Annals of China: the difference is 975 years, instead of 836.

If we suppose, that the 836 years are to be reckoned, from the end of the Dynasty of Nanda, instead of the death of their primogenitor, the numbers will agree perfectly well. This Dynasty lasted, either 137, or 139 years, according to the Purāṇas; which, added to 836, give exactly 975, the number of years required.
The accuracy of the annals of China, and the carelessness of the Hindu chronologers, are equally known; and, of course, the former must be our guide.

According to the Bauddhist, the ancient Buddha, or Dharmarāja, probably the same with Yudhishtīra, manifested himself, or began to reign, 1367 years B.C., as mentioned in the Ayn-acerbī. It will appear hereafter, that the Dharmarāja, the subordinate Menu of his Calif, was really the Minos of the Greeks: that Cṛiṣhna, or Rādhā-mōhana, was the same with Rhadamanthus, or Rādhamanes. Minos could not have lived earlier than 130, or 140 years, before the Trojan war, which happened 1184 B.C. and the time of his death happened about 1320 years before the same Era. If the taking of Troy happened 1200 B.C. as some suppose, then Minos died about the year 1330: and, admitting, that the first year of the Cali-yuga was the 1370 year B.C. Yudhishtīra, of course, died in the 1332; according to some, who assert, that he died 38 years after the beginning of the Cali-yuga. Others say, that he lived 28, and even 8 years only, after the beginning of that period. The Dharmarāja of the Bauddhist lived 120, and Minos 120 also, or 125 years, according to others. Nonnus, in his Dionysiacs, shews that Jara-Sandha, literally old Sandha, Mahā-rāja of India, and whom he well describes, when he says, that Morheus, the Emperor of India, who was called Sandes, was contemporary with Minos; and his Bacchus is the same with Bhagavaṇ, in the character of Cṛiṣhna. Thus we have two Eras of the same event, (an inferior, and subordinate Cataclysm, or desolation,) one 1578, and the other 1370 years B.C. This desolation of the world was the deluge of Deucalion, as I have shewn in my Essay on mount Caucasus: and the
made use of the same computation nearly with the Pauránics, for they say, that it happened 1529 years B.C. according to Eusebius and the Parian Chronicle, and other authors: whilst the ablest Chronologers have shewn, that it could not have happened earlier than the year 1380 B.C. The Greeks had also four ages, like the Hindus; and the last, or Iron age, answering to the Cali-yuga, began some time before the Trojan war, and a little after the expedition of the Argonauts and Deucalion. Hesiod laments very much, that he was born during that age of corruption and wretchedness. Thus the Greeks and the Pauránics themselves, in their more sober moments, agree perfectly about the beginning of the Cali-yuga, or Iron age.

According to the Institutes of Menu, we may place the beginning of the Cali-yuga about the year 1370 before Christ. For we read there, that men in the golden age lived 400 years; 300 in the next, or silver age: 200 in the brass one: and 100 in the Cali-yuga. These four ages are obviously to be reckoned from the flood; after which, men, as far down as Eber, lived about 400 years: and then, regularly decreasing, till the beginning of the Iron age, or 1370 B.C. when we find that Yudhishtira, Cṛṣṇa, Minos, and Jupiter lived about 100 years.

The followers of Jina place the beginning of the Cali-yuga in the year 1078 B.C. as we shall see hereafter. Their Chronological system has, of course, much affinity with that of Sir Isaac Newton. Every Pandit will boast, that they have uninterrupted lists of kings, from the beginning of the Cali-yuga, to the Era of Vicramaditya; and even lower down, for the space of 3044 years: but what was my astonishment, to find, in perusing the Purāṇas, that this was by no means the case, as it appears from the accompanying Table, in which, one list gives only.
1718 years, and the other no more than 1672, from the first year of the Cali-yuga to the Era of Vicramaditya. In the third column, which I have made out of the shortest numbers in both lists, the sum total amounts only to 1409 years; from which we must deduct 35 years, for the supposed reign of Pushpamitra, (for he did not ascend the throne himself, after having murdered his own sovereign; but resigned it to his son;) and there remain 1373 years; and the highest numbers in both lists give 1855. The first list is from the Brahmāṇḍa, and the second from the Vāyu-purāṇa. In other Purāṇas, the number of years, during which each prince reigned, is omitted; but the sum total of the reigns of each dynasty is recorded. From the first year of the Cali-yuga, to the death of Puranajaya, they reckon 1000 years, for 22 reigns, or perhaps generations; which is inadmissible. From the first year of the Cali-yuga to the birth of Buddha they reckon also 1002 years, including 23 generations: now Buddha was born 68 B.C. This places the first year of the Cali-yuga 1564 before the Era of Vicramaditya.

From the first year of the Cali-yuga to the death of Puranajaya, they reckon 1000 years, as we have seen before: add to this,

From the Bhāgavat, From the Vishnu Purāṇa,

<table>
<thead>
<tr>
<th>Period</th>
<th>Years</th>
</tr>
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<tbody>
<tr>
<td>for the Sunacas</td>
<td>138</td>
</tr>
<tr>
<td>the Sisunacas</td>
<td>360</td>
</tr>
<tr>
<td>Mahānanda &amp;c.</td>
<td>128</td>
</tr>
<tr>
<td>to Chandragupta’s reign, 100</td>
<td>362</td>
</tr>
<tr>
<td>before Christ,</td>
<td>1598</td>
</tr>
<tr>
<td></td>
<td>315</td>
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<tr>
<td>Subtract</td>
<td>1913</td>
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<tr>
<td></td>
<td>56</td>
</tr>
<tr>
<td>Before Vicramaditya,</td>
<td>1857</td>
</tr>
<tr>
<td></td>
<td>1849</td>
</tr>
</tbody>
</table>
It appears, that the Sunacas, and Si-sunacas were two branches of the same family: the first sat on the throne 128 years; but the sum of the reigns, in both dynasties, amounted to 362. Mahá-nanda, and the Súmályádicas reigned only 40 years, instead of 100: and the whole may stand thus corrected, from the first year of the Cáli-yuga, 1000 down to the accession of Chándragupta, or 315 years 362 40 B.C. There are 52 generations; and reigns mixed together, 1402 to fill up that space, or about 31 years for one reign, which calculation is too large. These different computations of the Era of the Cáli-yuga from the Puráñas, with the several corrections which they are susceptible of, I thought of the greatest importance to lay before the learned. In the two accompanying lists, the numbers, particularly in the beginning, are obviously too large, either for generations, or reigns: and of course, they must be rejected. It is remarkable, that these numbers are pretty regularly decreasing, from 98 for a reign, in the beginning, down to Vicramáditya, to three or four years. This regular decrease is equally inadmissible.

The first king of Magadha was Jára-Sandha: for that country began to be known, under that name, in his time; being before denominated Cícata. But Jára-Sandha was not the first king of Cícata; his ancestors had ruled over it for many generations, at least from the time of Vríhadraṭha, or Vríhat-Raṭha: from whom, the whole dynasty, as far down as Puranjaya, or Rupunjaya, is denominated the dynasty of the Bārhadrathás, in a derivative form. They were descended from Puru, the fifth son of Yayáti, the son of Nahusha. We are told, in general, that Yayáti divided his empire, the whole world, amongst his five sons. To Puru, the youngest, and his favourite, he gave India, or
the middle part: to the others, who had incurred his displeasure, he allotted inferior kingdoms. To Yadu, the ancestor of Crīśna, he gave the South, by which they understand the Deccan, or peninsula. The North to Anu, the East to Druhyā and the west to Tūrvasu: but this division does not agree with what we read in the Harivansā. Besides, as the Brāhmens acknowledge, that they are not natives of India, but came from the N. W. and that Canoge was their first settlement; their ancestors, at that early period, surely could not yet have conquered India, or even made any settlement in it. The offspring of Tūrvasu, so far from settling in the west, is declared, in the Harivansā, to have settled in the southern parts of India; and in the tenth generation, including their Sire, four brothers divided the peninsula among themselves. Their names were Pandyā, Cērala, Cōla and Chōla: and this division obtains, even to this day. Cōla lived in the northern parts of the peninsula, and his descendants are called Coles, and Collers to this day: and they conceive themselves, with much probability, to be the aborigines of India, to which they give the name of Coller or Colara. Hence, we read in Plutarch, that the Ganges was called formerly the Calaurian river, and the same author mentions a Calaurian, or Hindu, and a handsome damsel, called Diopethusa, who was also a Calaurian, or native of India, or country bordering upon the Calaurian river. (1)

In the same manner, we find the posterity of Anu dividing the eastern parts of India, among themselves, under the names of Anga, Banga, Calinga, Pundhra (now Tamlook) and Undhra (or Orissa): and we are always reminded, that Crīśna and the Pāndavas, came from the west: and their first settlements were on the banks of the Hydaspes or Vīstā, the country bordering upon which, is called, by Ptolemy, the country of the

(1) Plutarch. de fluminibus.
Pandovi, or Pandavas. Crīśna had a small estate, near Dwāraca, in Gurjarāt, where he generally lived.

The first kings of the Dynasty of the Bārhadrat'has being omitted in the table, are given here from the Harivānśa. The famous Upārīchāra was the sixth, in lineal descent, from Čuru; and his son was

Vṛihadrat'ha
Cushāgra
Vṛiśhabha
Pushpavān
Satyasahīta
Urja
Sambhava
Jarā-Sand'ha

Jarā-Sand'ha, literally old Sand'ha or Sand'has, was the lord paramount of India or Mahā-Rājā; and in the spoken dialects Mā-Rāj. This word was pronounced Morieis by the Greeks; for Hesychius says, that Morieis signifies king in India: and in another place, that Mā' in the language of that country, signified great. Nonnus, in his Dionysiaca,(1) calls the lord paramount of India, Morrhæus; and says, that his name was Sandes, with the title of Hercules. Old Sand'ha is considered as a hero, to this day in India; and, pilgrimages, I am told, are yearly performed to the place of his abode, to the east of Gayā in South Bahar. It is called Ṛaj-a-Griha or the Royal mansion, in the low hills of Ṛaj-a-giri or the Royal mountains: though their name, I suspect to be derived from Ṛaj-a-Griha. The Dionysiaca of Nonnus are really the history of the Mahā-Bhārata or great war, as we shall see hereafter. A certain Dionysius wrote also a his.

(1) Nonn. Dionys. lib. 34. v. 197.
tory of the Mahábhárata in Greek; which is lost: but from the few fragments
remaining, it appears, that it was nearly the same with that of Nonnus,
and he intitled his work Blassarica. These two poets had no communica-
tion with India; and they compiled their respective works, from the re-
cords, and legendary tales of their own countries. Nonnus was an Egyp-
tian, and a Christian. The Dionysiacs supply deficiencies in the Mahá-
Bhárata in Sanscrit; such as some emigrations from India; which,
highly probable, took place in consequence of this bloody war.

Jará-sand’ha erected a Jaya-sthamba, or pillar of victory, at
Benares. According to tradition, it was destroyed by the Musulmans, and
the capital, the only remains of it, has been shewn to me. It stood near the
Ganges, at the Gaut, or landing place, of Jará Sand’ha, as it is called
to this day. These pillars are pretty numerous along the banks of the
Ganges; and most of them are of very great antiquity. They were
known to the Greeks, who called them the pillars of Bacchus.

The accession of Chand’ra-gupta to the throne, and more particu-
larly the famous expiation of Chanacya, after the massacre of the
Sumályas, is a famous Era in the Chronology of the Hindus: and both
may be easily ascertained, from the Puránas, and also from the Hilitori-
ans of Alexander. In the year 328 B.C. that conqueror defeated
Porus; and, as he advanced, (1) the son of the brother of a petty king in the eastern parts of the Pónjáb, fled at his approach, and
went to the king of the Gangarídæ, who was, at that time, king Nanda
of the Puránas. In the Mudrá-ráchasa, a dramatic poem, and by no
means a rare book, notice is taken of this circumstance. There was,
says the author, a petty king of Vícatpalli, beyond the Vindhyán moun-
tains, called Chandrá-dása, who, having been deprived of his kingdom,

(1) Diodor. Sic. lib. XVII. c. 91. Arrian also &c.
by the Yavanas or Greeks, left his native country, and assuming the garb of a penitent, with the name of Suvidha, came to the metropolis of the emperor Nanda, who had been dangerously ill for some time. He seemingly recovered: but his mind and intellects were strangely affected. It was supposed, that he was really dead, but that his body was reanimated by the soul of some enchanter, who had left his own body in the charge of a truly friend. Search was made immediately, and they found the body of the unfortunate dethroned king, lying as if dead, and watched by two disciples, on the banks of the Ganges. They concluded, that he was the enchanter, burned his body, and flung his two guardians into the Ganges. Perhaps the unfortunate man was sick, and in a state of lethargy, or otherwise intoxicated. Then, the prince's minister assassinated the old king, soon after, and placed one of his sons upon the throne: but retained the whole power in his own hands. This, however, did not last long; for the young king, disliking his own situation, and having been informed, that the minister was the murderer of his Royal father, had him apprehended, and put to a most cruel death. After this, the young king shared the Imperial power, with seven of his brothers; but Chandragupta was excluded, being born of a base woman. They agreed, however, to give him a handsome allowance, which he accepted with indignation: and from that moment, his eight brothers resolved upon his destruction. Chandragupta fled to distant countries: but was at last seemingly reconciled to them, and lived in the metropolis: at least, it appears that he did so; for he is represented, as being in, or near, the Imperial palace, at the time of the revolution, which took place twelve years after. Porus's relation made his escape
to *Pulibothra*, in the year 328 B.C.; and in the latter end of it, *Nanda* was then assassinated in that year; and in the following, or 327 B.C. *Alexander* encamped on the banks of the *Hyphasis*. It was then, that *Chandragupta* visited that Conqueror's camp: and, by his loquacity, and freedom of speech, so much offended him, that he would have put *Chandragupta* to death, if he had not made a precipitate retreat, according to *Justin* (1). The eight brothers ruled conjointly twelve years, or till 315 years B.C. when *Chandragupta* was raised to the throne, by the intrigues of a wicked, and revengeful priest, called *Chânacya*. It was *Chandragupta*, and *Chânacya*, who put the Imperial family to death; and it was *Chandragupta*, who was said to be the spurious offspring of a barber; because his mother, who was certainly of a low tribe, was called *Mura*; and her son of course, *Maurya* in a derivative from; which last signifies also the offspring of a barber; and it seems, that *Chandragupta* went by that name, particularly in the west: for he is known to *Arabian* writers by the name of *Mur*, according to the *Nubian* Geographer, who says, that he was defeated and killed by *Alexander*: for these authors supposed, that this conqueror crossed the *Ganges*; and it is also the opinion of some ancient Historians in the west.

In the *Cumâricâ-ehanda*, it is said, that it was the wicked *Chânacya*, who caused the eight royal brothers to be murdered; and it is added that *Chânacya*, after his paroxysm of revengeful rage was over, was exceedingly troubled in his mind, and so much flung with remorse for his crime, and the effusion of human blood, which took place in consequence of it, that he withdrew to the *Sucla-Tīrtha*, a famous place of worship near

(1) Lib. xv. c. 4.
the sea on the bank of the Narmadâ, and seven coss to the west of Banroche, to get himself purified. There, having gone through a most severe course of religious austerities and expiatory ceremonies, he was directed to sail upon the river, in a boat with white sails, which, if they turned black, would be to him a sure sign of the remission of his sins; the blackness of which would attach itself to the sails. It happened so, and he joyfully sent the boat adrift, with his sins, into the sea.

This ceremony, or another very similar to it, (for the expense of a boat would be too great,) is performed to this day at the Sucla-Tiritha; but, instead of a boat, they use a common earthen pot, in which they light a lamp, and send it adrift, with the accumulated load of their sins.

In the 63d section of the Agni-purâna, this expiation is represented in a different manner. One day, says the author, as the Gods, with holy men, were assembled in the presence of Indra, the sovereign lord of heaven, and as they were conversing on various subjects, some took notice of the abominable conduct of Chanâcyâ, of theatrocity and heinousness of his crimes. Great was the concern and affliction of the celestial court, on the occasion; and the heavenly monarch observed, that it was hardly possible, that they should ever be expiated.

One of the assembly took the liberty to ask him, as it was still possible, what mode of expiation was requisite, in the present case? and Indra answered, the Carshâgni. There was present a crow, who, from her friendly disposition, was surnamed Mitra-Câca: she flew immediately to Chanâcyâ, and imparted the welcome news to him. He had applied in vain to the most learned divines; but they uniformly answered him, that his crime was of such a nature, that no mode of expiation for it could be found in the ritual. Chanâcyâ immediately performed the
Carshágni, and went to heaven. But the friendly crow was punished for her indiscretion; she was thenceforth, with all her tribe, forbidden to ascend to heaven; and they were doomed, on earth, to live upon carrion.

The Carshágni consists in covering the whole body with a thick coat of cow dung, which, when dry, is set on fire. This mode of expiation, in desperate cases, was unknown before; but was occasionally performed afterwards, and particularly by the famous Sancarachárśya. It seems that Chandragupta, after he was firmly seated on the imperial throne, accompanied Chánacya to the Svacla-tértha, in order to get himself purified, also.

This happened, according to the Cumáríca-Chanda, after 300 and 10 and 3000 years of the Cali-yuga were elapsed, which would place this event 210 years after Christ. The fondness of the Hindus, for quaint and obscure expressions, is the cause of many mistakes. But the ruling epoch of this paragraph, is the following, “after three thousand and one hundred years of the Cali-yuga are elapsed (or in 3101) will appear king Śaka (or Saliváhana) to remove wretchedness from the world.” The first year of Christ answers to 3101 of the Cali-yuga, and we may thus correct the above passage; “of the Cali-yuga, 3100 save 300 and 10 years being elapsed (or 2790) then with Chánacya go to the Śucla-Tértha.”

This is also confirmed, in the 63d and last section of the Agni-puráña, in which the expiation of Chánacya is placed 312 years before the first year of the reign of Śaka of Saliváhana, but not of his Era. This places this famous expiation 310, or 312 years, before Christ, either three or five years after the massacre of the Imperial family.
My Pandit, who is a native of that country, informs me, that Chānacīya’s crimes, repentance and atonement are the subject of many pretty legendary tales, in verse, current in the country; part of some he repeated to me.

Soon after, Chandragupta made himself master of the greatest part of India, and drove the Greeks out of the Panjāb. Tradition says, that he built a city in the Deccan, which he called after his own name. It was lately found, by the industrious and active Major MacKenzie, who says that it was situated a little below Śri Sālām, or Purwutum, on the bank of the Crīśna; but nothing of it remains, except the ruins. This accounts for the inhabitants of the Deccan being so well acquainted with the history of Chandragupta. The authors of the Mudrā-Rāṣṭha, and its commentary, were natives of that country.

In the mean time, Seleucus, ill brooking the loss of his possessions in India, resolved to wage war, in order to recover them: and accordingly entered India, at the head of an army: but finding Chandragupta ready to receive him, and being, at the same time, uneasy at the increasing power of Antigonus and his son, he made peace with the emperor of India, relinquished his conquests and renounced every claim to them. Chandragupta made him a present of 50 elephants; and, in order to cement their friendship more strongly, an alliance by marriage took place between them, according to Strabo, who does not say, in what manner it was effected. It is not likely, however, that Seleucus should marry an Indian princess; besides, Chandragupta, who was very young, when he visited Alexander’s camp, could have no marriageable daughter at that time. It is more probable, that Seleucus gave him his natural
daughter, born in Persia. From that time, I suppose, Chandragupta had constantly a large body of Grecian troops in his service, as mentioned in the Mādrā-Rāṣṭhāsा.

It appears, that this affinity, between Seleucus and Chandragupta, took place in the year 322 B.C. at least, the treaty of peace was concluded in that year. Chandragupta reigned four and twenty years; and, of course, died 292 years before our Era.

III. After the decline, and ultimately the fall of the Imperial house of Nanda, and of the Bāli-putras, the most illustrious family, that sat afterwards upon the Imperial throne of India, was that of the Andhras. From the Bāli-putras, the inhabitants of the Gangetic Provinces were denominated Pāli-bothras; and Pāli-potras: in the same manner, they were called, after the Andhras, the Andhra Indians; these are the Andhr-Indi, which lived along the banks of the Ganges, according to the Peutingerian Tables.

The Andhra dynasty lasted 456 years: in the Vayu-purāṇa, it is said 418; but some copies have 458. Be this as it may, the general opinion is, that it lasted 456 or 458 years. These deduced from 648, there remains 192, or 190, for the year of the inauguration of its first king, called Bālin, Bālihita or Bāleya, Csheshmaca, Sindhuca, Sīpraca, Sūdraca, and Sūraca. In the Kumārīcā-Chanda, it is declared, that, after 3300 years, save 10, of the Cali-yuga were elapsed, a great king, called Sūdraca, would reign in Chārḥita: the name of his metropolis is however omitted in many copies. Sūdraca, Sīpraca, or Sindhuca began then his reign, in the year 191 of the Christian Era.
From Chandragupta's accession to the throne, 315 B.C., to the year 190 A.D., there are 505 years: but during this period, the Chronological particulars, from the Purāṇas, are not to be easily reconciled with the general outlines which I have traced out. According to the Purāṇas, there were ten Maurya kings, who ruled 139 years; these were succeeded by the Sunga dynasty, consisting of ten kings also, and Vicramāmitra was the eighth of that dynasty.

The next was that of the Canwasa, consisting of four kings; then Sudraca succeeded to the throne, in the year 191. Thus we have six reigns, the last of the Sunga dynasty, and the four Canwasa only, to fill up a space of 246 years; which is impossible.

These Canwasa are said to have reigned 345 years; which is still more extravagant. It is obvious, that there is some gross error in the context; to rectify which, in a satisfactory manner, can hardly be expected. It is my humble opinion, that a dynasty is omitted here; and that dynasty is that of the seven And'hras, mentioned in the Brahmāṇḍa, Vāyu, Bhāgavata and Viṣṇu Purāṇas; but out of its place. In some Purāṇas, the And'hras dynasty is made to consist of seven, and in others, of nine, kings. In one it is said, that they reigned 300 years; in another only 250 years.

The And'hras made a most conspicuous figure, on the banks of the Ganges, for above 800 years; under three distinct dynasties. The first was called, simply, the And'hras dynasty; and its kings were considered as pure and genuine And'hras. The second dynasty is that of the And'hras-jāticas, or of the family, or tribe, of the And'hras, but a spurious branch of it. The third is that of the And'hras-bhrātyas, or servants of the And'hras sovereigns; who, after the
death of Puloma, seized upon the Kingdom, and divided it among themselves. Sipraca, or Suracca, was the first of the Andhra-jaticas; and the venerable Puloma was the last. In the Ramanas no place is assigned, in the chronological lists of the kings of Magadhha, to the first dynasty of the genuine Andhras; except in one, in which they are placed immediately after Puloma, who, it is well known, was succeeded by the servants of the Andhras, not by the seven genuine Andhras. In the Bhagavata, we read only, that the seven Andhras would reign over the land. In the Vishnu-purana, they are not mentioned, unless they be the same with the Cusa or Cusala. In the Brahma, they are introduced between Puloma, and the Andhra-bhrtiyas, in an obscure manner: and there, the nine Andhras, with the Andhra-jaticas, are joined together, in an immediate order of succession; and, it is added, that there were thirty-six of them; nine genuine Andhras, and twenty-seven, belonging to a spurious branch of the same family: but it is not said, which of them ruled first. Now, it is universally acknowledged, that the Andhra-bhrtiyas succeeded Puloma; and, the fact being testified by the annals of China, no doubt can remain concerning this circumstance; and the seven, or nine, genuine Andhras, must of course be placed before the spurious branch, and immediately after the Canwa dynasty. Thus, we shall have either 13 or 15 kings, to fill up a space of 246 years. The occasion of this omission is, I believe, that the first kings of the Andhra, and Andhra-jatica dynasties, were prime ministers, and both put their matters to death, and usurped their throne. That Sisuman, the last of the Canwa dynasty, was put to death by his prime minister, an Andhra, is acknowledged by every Historian: and in the
(1) Mahá-bhárata, it is declared, that Mahá-cárńi, or Súdraca, usurped the throne, from his master, the king of Magadha; whom he confined, in a place, amid waters; from which circumstance, the venerable old man was called, by way of ridicule, Ambu-vícha. It is added, that the old king was blind and deaf.

The famous Śrí-cárńna-déva, in his grant, lately found at Be-náres, declares, that he was of the Haihaya tribe, who lived originally on the banks of the Narmadá, in the district of the western Gáuda, or Gaur, in the province of Málava. Their residence was at Chauli-Mahéswora, a famous place of worship, to this day, on the Narmadá; and built by one of his ancestors. The western Gaur was also the native country of a most respectable tribe of Bráhmans, called Sandila; who, for several generations, acted as prime ministers to the Emperors of the Andhrá tribe. That this was their native country, is attested by Major Mackenzie, in his account of the kings of Warangal. One of the thirty-six musical modes in India, and belonging to the superior Rága, or mode, called Málava, is denominated Gáudi, from the country of Gáuda, which was part of the province of Málava.

They afterwards were called Andhras, from the country of Andhrá, on the coast of Coromandel, and extending from Nellore to the Godaveri; of which they became kings: but in what manner, and when this was effected, we do not know. They were called Andhras in the time of the Cañwa Dynasty, about the beginning of the Christian Era. At that time, says Pliny, the Andhras, Andaræ kings, were very powerful in India. They had no less than thirty fortified cities, with

(1) Rájugrihe nagna Mágadhánām Rája Amáuvícha ša Caranaíh chačhu$hádhihah. Ta$f-$yāṃat yó mahā Cárñi iswary rajánām avamanyatē amácádhihā īti carnó$tih.
an army of 100,000 men; and 1000 elephants. Their Cavalry consisted only of 2000 men. SRI-CARNNA-DÉVA takes the title of king of Tri-Calinga, or of the three shores, to the east and west, and to the south of India.

There was another Carna, mentioned in the Mahá-Bhárata, (section of the Rája-Dharma) to whom Járá-sandha gave the city of Malini, with the country round it, now the district of Bháglepoor, called from him, the country of Carna. Malini, in lexicons, is laid to be the same with Champá-nagari, now Champá-nagar in that country. This Carna was the son of Cantí, the wife of Pandu, who conceived by the sun; and, of course, Carna is an incarnation of the sun. Tradition says, that the little kingdom of Carna, now the Bháglepoor district, remained, for many generations, in the possession of the descendants of Carna. This Carna is totally unconnected with our Carna, who likewise is of divine extraction, as one of his ancestors, Cátavírya, was conceived in a miraculous manner; and, to this day, divine honours are paid to him, in the west of India. Hence, they all assumed the titles of Srí and Déva, as in SRI-CARNNA-DÉVA, the fortunate and divine Carna, and in SRI-DÉVA-PALA-DÉVA, whose original name was Deva-pála answering exactly to the Greek Theo-philos, in which, the word Philos is taken in a passive sense, as well as Pála, in Sanscrit, in the word Deo-pála. In the compound SRI-DÉVA-PALA-DÉVA, the second Déva, is no part of the name, but a title. There is a living instance of such an hereditary divinity, near Poona, of which an interesting account is given, in the seventh Volume of the Asiatick Researches, in the family of Murabagosseyn, whose descen-
The Kings of Magadha.

... add the epithet of Deva to their proper names, and the chief of the family is considered as a God. There is then every reason to believe that Sri-Deva-Pala-Deva claimed equally a divine origin: and as he was originally from the same country Gauda, in Malwa, it is probable, that he belonged to the same family.

For by Gauda we must not by any means understand Bengal: which, as far as I can recollect, is never thus called in any book I ever met with. Its metropolis is indeed called Gauda from the Goddess of that name, who was worshipped there: hence it is with propriety called Gaudrigas (Corygaza) by Ptolemy. But Gauda, as the name of a country, does not seem to be in the least connected with that of the Goddess Gauda.

In the names of six kings, mentioned in the grant found at Mongir, we find the adjunct pala, which seems to be characteristic of that branch of the Haihaya tribe.

The Haihaya tribe, to which the Andhra family belongs, claims, for their ancestor, Haihaya, the son of the Godlike Yadu, and the grandson of Nahusha, or Noah: Mahishman, the fourth in descent from him, built Mahishmati, now Chauli-mahaswara on the Nar- madâ. The fourth descendant of the last mentioned was Crityavirya, whose son was the famous Càrtavirya, to whom divine honors are paid to this day.

There is a dynasty of Haihayas, mentioned in the Puranas, who have no connection with the Andhra dynasty; and they are introduced as possessed of some district, the situation and name of which are omitted; but it was probably the country of Andhra in the Deccan. A powerful tribe of these Haihayas, according to the Puranas (as
I have been lately informed, lived in the countries on the banks of the Ganges, in the time of king Sāgara; but in consequence of their ill behaviour to him and his son, he was obliged to drive them out of India, except a few, who held the conduct of their relations in abhorrence. Tradition says, that they withdrew to western countries, where it is added that they were better known under the names of Pārāśicas, Aśva-muḥās or horse-faced, and that of Aśva-pati for the title of their kings. This traditionary legend originates probably from their name, Hāiḥaya, implying horses, or horsemen: Pliny mentions a nation in Persia called Hyi.

The Čarna of the Mahā-Bhārata, to whom Jára-sandha gave the country of Bhāglipūr, cannot be the same, who dethroned the king of Magadha; for this king was blind and deaf, and the usurper was his prime minister: but Jára-sandha was in the full enjoyment of his bodily faculties, when he was put to death by Cṛiṣṇa, or rather Bhīma. The first is called Čarna, and the usurper Mahā-Carnī. This last is famous, all over India, and even as far as Malaca, and the adjacent islands, according to Mr. Marsden; who says, that they have legends there, mentioning Mahā-Carna, and a lion possessing surprising powers, and shooting arrows at him. This lion they call Singa-sactee, (Sinha-sacti,) and Singa-rajoon (Sinha-rāja) 1) He is mentioned also in the grant of the king of Tagara, inserted in the first volume of the Asiatic Researches, and his munificence and liberality are there highly praised. King Bhōja, in his address to Rāja Munja, considers him and Vīcramāditya as the two most powerful kings that ever existed. He is, for that reason, called Aditya, and also Rāja-Vīcrama:

1) Asiatic Researches Vol. 4. p. 32.
and in the Agni-purāṇa, Vicramāditya, the son of Gandhāra-rūpa, is positively declared to be Carnānsya, or descended from Rāja-Carna. This is, of course, the Vicramāditya mentioned by Ferishta, as contemporary with Sapor king of Persia, who ascended the throne in the year 241: and in some lists Suraca is said to have reigned 56 years. Ferishta knew of no other Vicramāditya, but this: and some missionaries, who have fixed the death of Vicrama, and the beginning of his Era, in the year 250, must have been misled, by legends, wholly relating to this Vicramāditya.

He is mentioned, in the Vṛihat-cāthā, under the name of Sudraca, or Suraca, among the several worthies, dignified with the title of Vicramāditya. In another section, he is introduced, as the prime minister of an emperor of Pātalī-putra, or Patna, who was labouring under various infirmities: when he was advised, by a mischievous Brāhmen, to avail himself of these circumstances, and usurp the throne; which he did, according to the Purāṇas and the Mahābhārata.

In the Bhāgavata, he is called Balihica, or rather Balihiṭa; in the Viśnu-purāṇa, Sipraça; in the Brahmāṇḍa Chheśmaca; in the Vayupurāṇa, Sindhuca; he was the first of the Andhrā-jātiyas. In the Cumāricā cāhaṇḍa he is called Sudraca, and in some copies Suraca: and the first year of his reign was the 3291 of the Cali-yuga. In the Maha-Bhārata, he is called Mahā-Carni, king of kings; and the name of his sovereign, whom he dethroned, but did not put to death, was Ambu-vīcha. In his grant, found lately at Benares, he calls himself Sri-Carṇa-Dēva, king of Tri-Calīnga, or India.
A few years ago (in 1801,) this grant was found, at the bottom of an old well filled with rubbish, in the old fort of Benares. It is engraved upon two brass plates, joined by a ring, to which is affixed the Imperial seal. It is of the same size, nearly, and in the same shape, with that found at Mongir. The writing is also the same, or at least without any material deviation. The Imperial seal is about three inches broad: on it, in bas-relievo, is Parvatí, with four arms, the figure with her legs crossed: two elephants are represented, one on each side of her, with their trunks uplifted. Below is the Bull, Nandi, in a reclining posture, and before him is a basket. Between Parvatí, and the Bull, is written Śrī-Carnāṇa-Dēva. The grant is dated the second year of his new Era, and also of his reign, answering to the Christian year 192. According to the Purāṇas, he reigned twenty three years, and was succeeded by his brother Cṛishna, who reigned eighteen; and his son was Śrī-Sat Cārni, or Śrī-Sat-Cārṇa, who reigned 56 years. This surely could not be his name, as it signifies the prosperous seven Cārṇis.

The ancestors of Śrī-Cārṇṇa-Dēva, mentioned in the grant, were, first, his father Gāgeya-Dēva, with the title of Vijaya-Cantaca; he died in a loathsome dungeon. He was the son of Cocalla-Dēva, whose father was Lācshmaṇa-Rāja-Dēva. Maha-Cārni, according to tradition, resided at a place called Jangirah, near Sultangunj, and about half way, between Mongir and Bhāglepore. There some remains were shewn to me of his palace, on the site of which an Indigo factory now stands. He is called there Śrī-Cārṇēśwara, or simply Cārṇēswara, perfectly answering to Śrī-Cārṇa-Dēva. The opposite rocks, in the
Ganges, were known by the name of Carnagiri, or the hill of Cara. There lived the old king of Magadh, blind and deaf; and in that state of infirmity, this was certainly a very comfortable place for him, to live in. It does not appear, that Sri-Carna-Deva used him ill: certainly, the good old man could no longer act, or appear as a sovereign. Be this as it may, from that circumstance the old king was nicknamed Ambu-vicha, or he who resides in the middle of waters.

There was also another king of Magadh, called Cara with the surname of Dahariya; because he generally resided at a place called Dahara, between Mongir and Surujgurh; and inserted in Major Rennell's atlas. This Cara is mentioned in an Epic Poem, entitled the wars of Prithu-Raja, in the spoken dialects; and part of which is in my possession. Prithu-Raja waged war against Sultan Gori, in the year 1192 of the Christian Era. The king of Magadh is called there, Cara Dahara, and he accompanied the Emperor Jaya-Chandra, in his expedition against Ceylon, which he undertook, under pretense of a pilgrimage to worship the famous statue of Cartica-Swami. At the head of a numerous army, he marched from Yogini-pura, or Dilli, for thus the last is spelled throughout the poem. The general rendezvous of the vassal kings was to be at Goval-Chanda, said to be Gowel-ghur, near Ellichpoor. He then sent a message to Vira-Bhadra, king of Singala, (or Ceylon,) to prepare every thing for his reception; being a vassal of the empire. Vira-Bhadra submitted with good grace; and Jaya-Chandra went to Ceylon, worshipped Cartica-Swami, and visited the famous fort of Sancara-grttha, near the seashore, and saw there the statues of Rama and C.C.
Rāvana. I am also informed, that this Cārṇa had a daughter, who lived in one of the royal seats, near Colong; and was seduced by the poet Chaūra, whose works are still extant. I have mentioned before, that the And'hra princes, who ruled on the banks of the Ganges, are divided into three classes, the dynasty of the genuine And'hra, consisting of nine kings; then the And'hra-jātiyas, or of the family of the And'hra; and lastly the And'hra-bhrītyas, or servants of the Ana'hra princes, who seized upon the government. It is not an easy matter to ascertain, whether the And'hra dynasty is to be placed before, or after the And'hra-jātiyas. I have placed it before, first to fill up a chasm in the lift of the emperors of India: in the second place, it is universally agreed, that the And'hra-bhrītyas usurped the throne, immediately after the death of Pulomā, the last of the And'hra-jātiyas: and this last circumstance is corroborated by the testimony of Chinese Historians, according to Mr. Dегuignes. Besides, in the Brahmāṇḍa, the And'hra and And'hra-jātiyas are considered but as one dynasty, consisting of thirty-six kings: from which, subtracting the nine And'hra, remain twenty-seven kings, which is the exact number of kings in the dynasty of the And'hra-jātiyas, resulting from four lifts compared together.

Nothing is related of the kings of this dynasty, except of the last, called Pulimān, Pulomā, Lomādi, and Pulomārchi, or Pulomā the pious Rishi. He was a great conqueror, and put an end to his life in the holy stream of the Ganges.

In an inscription found at Buddhā-gāyā, and inserted in the first Volume of the Asiatick Researches, mention is made of three kings of Magad'hā, emperors of India. The first, called Yajnaya-varmā, was a
most religious prince, and, taken up with the performance of religious

duties, he disturbed not the powerful ocean. His son Sardula-Varma,

though religiously inclined, was a great warrior: and he conquered the

world or India: and he terminated his brilliant carrier, by the voluntary

deed of death, near the uprising ocean; probably at old Sagar behind

Fulta near Moorgatcha, in Major Rennell’s atlas. His son was also a

pious prince, called Ananta-Varma. Yajnya-Varma appears to be

the same with Yajnyasri in the accompanying lists, and the great grand

father of Puloma. His name Yajnyasri, as mentioned by the

Pauranics, implies that he was fortunate; through the constant per-

formance of the Yajnyasri, Yajnya-Varma signifies the warrior, who

delighted in the performance of the Yajnya: and had he been of the

sacerdotal class, they would have called him Yajnya-Sarma. His son

conquered the refractory princes through India, or the world: he was

then entitled to the epithet of Vijaya, or the great conqueror: and

such is the name of the son of Yajnyasri, in the Puranas, where

Ananta-Varma is called Chandrasri, because, being a religious

prince, he was probably addicted to the worship of the moon. The

Chinese Historians mention an emperor of India, called Yeugnal,

which name is the same with Yajnya, generally pronounced Yagnya.

As he lived in the year 408, the times do not coincide: but this was

probably the title of some other pious prince. Pulimana, Puloma, or

Loma is called Poulomuen, Houblomienc, and Houblomiento, by the

Chinese. According to Mt. Deguignes, he conquered all India, in

the year 621, and died in 643. From him, India was called Poulomuen-

Koué, or the country of Pulimana, by the Chinese: and the Andhra

princes were so famous, that the inhabitants of the Gangetic Provinces

were called, in the well, the Andhra Hindus, or Andre Indi, according
to the Peutingieran Tables, in which they are placed along the banks of the Ganges. After the death of Pulimán, the whole country was thrown into confusion, according to Deguignes. Olonachun, one of the chief officers, (perhaps Càlyana-Chandra,) seized upon the Gangetic Provinces, and hearing that the Embassadors, from Taitsong, Emperor of China, to king Pulimán, were coming with Hiuntse, the chief of the Embassy, he sent troops to seize them; and Hiuentse effected his escape, with much difficulty, to Tibet; where YetsongLongtsan, king of that country, gave him an army, with which Hiuentse re-entered the Gangetic provinces, defeated the usurper, and took him prisoner.

From the death of Pulimán, we may date the fall of the empire, though not of the kingdom, of Magád’ha, or South Bahar, in the year 648. There were Mahárajás, or Emperors, at Canoge, in Gurjárát, and other parts of India. Anu-Gangam, or the Gangetic Provinces, was parcelled out, among several petty kings, such as the kings of Magád’ha, (or South Bahar;) Mait’hila (now Tirhoot,;) Sadeta (Oude,;) and Benares: the kings of Carña-deśa formerly Anga; (Carña-Dahárya, in the latter end of the twelfth century, was one of them). There were also kings of Tamralipta (or Tamlook in Bengal,) and one of them sent an embassy to China, in the year 1001: he is styled king of Tanmouichicou, by the Chinese.

The kings of Gaur became very powerful afterwards, and even conquered all the Gangetic provinces, at least as far as Benares. They assumed the title of Mahá-Rájás, even as late as the 15th century. It was then, that the town of Gaur (or Gauda) became the first city of that part of India: and this certainly accelerated the fall of Páli-putra; if it
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existed then; and two rival cities, so near, or rather close to each other, could not exist together; and the vicinity of Gauda probably induced the kings of Magadh to reside at Patna; and this, at so early a period, that even the name of the ancient capital is almost effaced from every record, and even from the remembrance of the Hindus.

The emperor Sri-Deva-Pâla-Deva boasts of his having humbled the Hunas a foreign tribe, who had invaded India, and are occasionally mentioned in the lists of countries, and tribes, in India. They succeeded the Parthians, and seem, of course, to be the same with the Murundas, whose thirteen kings ruled in the northern parts of India, immediately after the Tushîras, or Parthians. These are the Morundas of Ptolemy, who were masters of the whole country, to the north of the Ganges, from Delhi to Gaur in Bengal. They are declared, in the Purânas, to be Mléchchas, impure tribes, and, of course, they were foreigners. The same are called Maryathes by Oppian in his Cynogetics (1), who says that the Ganges runs through their country. Cosmas calls them white Huns, and relates, that, when he wrote, their king Gollas besieged a certain city, and that his elephants and horses drank up the water round it, and thus forced it to surrender. This has happened very often in the parched countries of Bicanere, and Jaffnâmarâ; and it does not even require a numerous army, to drink up the scanty waters of a few wells round a city: but then the besiegers, far from taking the town, are obliged to raise the siege, in the greatest distress.

The seven Carnas, in despite of the Brâhmanical tribes, are still famous all over India; and their memory held in the greatest veneration.

(1) Oppian Cynoget. lib. 4, v. 163.
tion: and their fame reached even as far as the Peninsula of Malacca, where they have still poems mentioning Carña, the Mahá Rájá, or emperor of India, according to Mr. Marsden (2). These poems, if procurable, might possibly throw some light on the history of those kings. Among the Andhāra princes of this dynasty, there is one called Gautami-putra, or the son of Gautama, being supposed to be an incarnation of him. He appears to be only a Bodhi-satwa, a disciple, or spiritual son; an appellation of the same import, but more generally used in the western parts of India, and by the followers of Buddhā. It is foretold in the Cumaricā-chanda, that after the year 3600 of the Ceti-yuga, answering to the year 500 of our Era, a Buddhā would be king of Magadha, of the house of Hema, and a Chandra-vansī; and that, after reigning 64 years, he would ascend into heaven. This Bodhi-satwa, or subaltern incarnation of Buddhā, or, in other words, Buddhā himself, the Dharmarāja, went to China, in the year 515 of our Era, where he is called Dharmā: at Siam, and in the Peninsula, he is called Pouti-sat, and Poti-satu.

We may consider Pulimān as the last king of Magadha, at the same time emperor of India. After him appeared a powerful king called Visvasphatica, Visvasphurji, and Visva-sphani; his real name was Puranjaya. He expelled the Cshetris or the Barons, as being too troublesome; and exalted the lowest classes, such as the Caivarttas, boatmen and fishermen, the Patīces, the Pulindas &c. He was however a great, and powerful prince; and his dominions extended all over Anu-Gangam, or the Gangetic provinces.

Then came a dynasty of nine kings, called the nine Nágās, or Nácās. These were an obscure tribe, called for that reason Gupta-
vansas: there were nine families of them, who ruled independent of each other, over various districts, in Anu-Gangam; such as Padmavati (Patna), Caxtipuri (now Cotwall nine cols to the north of Gwalior); Magadha (or Bahar); Prayaga, (or Allahabad); Saceta, (or Oude) and Benares. There is still a powerful tribe of the Nacas, on the banks of the Jumna and the Betwa-nadi. The Causalas or Pundhracas ruled in Tamralipta, near the sea shore, according to the Vishnu-purana. In other Puranas, we read the Causalas, or Andhras, which is inadmissible. The kings of Mathila (or Tirhut,) are often mentioned; but the kings of Gaur (or Bengal) are never noticed; unless they be the Bangavas, once mentioned in the Brahmanda. The kings of Bengal are not mentioned in the book of the wars of Prithviraja in the twelfth century; whilst those of Oude, Tirhut, Bahar, Nepal are noticed, as well as Bhoga king of Udaya-desa, now Orissa.
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ESSAY IV.

VICRAMÁDITYA AND ŚALIVÁHÁNA:
THEIR RESPECTIVE ERAS, WITH AN ACCOUNT
OF THE
BALA-RAYAS OR BALHAR EMPERORS.

The two periods of Vicramáditya and Śaliváhana are intimately connected; and the accounts we have of these two extraordinary personages are much confused, teeming with contradictions and absurdities, to a surprising degree. Their history is to be found in the Vicrama-charitra, the Sinhásana-Dwatrinsati, and the Vétála-pancha-vinsati, which have been translated from the Sanscrit into all the dialects of India; and the two last tracts are sections of the Vṛhat-calhá. The Vicrama-charitra is very scarce in the Gangetic provinces: but this deficiency is abundantly supplied, by ample extracts from that book, communicated to the Society, by Major MacKenzie of the Madras establishment. In general, the Hindus know but of one Vicramáditya; but the learned acknowledge four; and when, at my request, they produced written authorities, I was greatly surprised to find no less than eight or nine. Those who reckon four heroes of that name, agree only about two. The first Vicrama was he, after whom the period is denominated; the second is Rája Bhója. Some suppose that Śaliváhana was one of them, and that the fourth was the son of Bhója; whilst others insist that this last was either Jaya-Chandra, or Prithví-Rája, who fell in the great war against the Mahabharadivas;
or Musulmans, in the year 1192. Every Vicramáditya is made to wage war against an antagonist called Saliváhana, Salabán, and often denominated Nrisinha, Nágendram &c. except one, whose opponent's name was Maha-bhat, and that of his followers Maha-bhatadice, that is to say Muhammed and the Muhammedans.

Vicramáditya made a desperate tapasya, in order to obtain power and a long life from GaLi-devi; and as the seemingly continued deaf to his intreaties, he was going to cut off his own head, when she appeared, and granted him undisturbed sway over all the world for 1000 years, after which a divine child, born of a virgin, and the son of the great Tacshaca, carpenter or artist, would deprive him both of his kingdom and of his life. Such are the words of the Vicrama-charitra; and in the Cumáricá-chanda it is said, that this would happen in the year of the Cali-yuga 3101, answering to the first of the Christian Era. Thus, Vicramáditya reigned for 1000 years nearly, unmolested, in the enjoyment of every rational pleasure, and never troubling himself about his latter end; till, recollecting the prophecies about this wonderful child, and that the time for their being fulfilled was near at hand, he grew very uneasy, and sent people all over the world, to find him out, that he might destroy him: and having discovered the place of his abode, he advanced at the head of an immense army, but was defeated, and lost his life, by the hand of this divine child, who was then five years of age.

The history of these nine worthies, but more particularly when considered as a single individual, is a most crude and undigested mass of heterogeneous legends, taken from the apocryphal Gospel of the infancy of Christ, the tales of the Rabbis and Talmudists concerning Solomon, with some particulars about Muhammed; and the whole is jumbled toge-
ther with some of the principal features of the history of the Persian Kings of the Saffian Dynasty. For Vicrama is supposed to have waged war with the Romans, all the time that he lived; that is to say for 145 years; and to have taken one of their Emperors prisoner, whom he carried in triumph through the streets of Ujjaini. One of these Vicramas was really a Saffian prince; and the famous Shabour or Sapor, of that Dynasty, took the Emperor Valerian prisoner.

Thus Vicrama is made contemporary with Solomon; and, like him, he is said to have found the great mantra, spell or talisman; through which he ruled over the elements, and spirits of all denominations, who obeyed him like slaves; otherwise they were sure of being severely punished. Like Solomon, he had a most wonderful throne, supported and adorned with lions, who were endued with reason, and speech: and this wonderful fabric is called in Sanskrit, Sinhasana, or the seat supported by lions. We read in the Vétāla-pancha-śūla, that it was through the assistance of the great Vétāla, or Devil, that two Vicramādityas obtained the empire of the world, a long life, with unlimited sway. They performed the pūjā in his honor, offered sacrifices, and in short dedicated, or gave themselves up to him. This is highly reprobated by divines in India, yet they seem to allow, that when all other means fail, it may be done, provided it be not for wicked and abominable purposes. We read in the Thāmarāvahnameh, (1) that the div Argenk had likewise applied to the devil, to become the Solomon or Vicrama of his age. Zohāc gave himself up also to the devil, in order to become the sovereign lord of the world, and with his assistance he killed his predecessor.

But let us return to the extract from the Vicrama-charitra, by

MAJOR MACKENZIE. Then came Bala-pishi, Vicramárc, Balí, and Bhartrihari, four brothers, from four mothers, of the four different classes, and sons of a holy Brähmen of Benares. The last, or Bhartrihari, was of the fourth class, and succeeded to the throne. He was learned, pious and valiant; and it is believed, that he is still alive, as a Muni, in the wilds above Hari-dwára. He was succeeded by Vicramárc, who made a sacrifice in honor of the goddess Cali, and offered his own head. The goddess appeared to him, saying what is your boon? That I may rule the world for a long time. The goddess, pleased with his faith and devotion, told him, that at Ujjayini, he should rule the terrestrial world for 1000 years, without hindrance or molestation, and at last that he should be slain, by a child, born of a virgin one year and a half old. His brother, being informed of this circumstance, said he would lengthen his life to 2000 years, for, as he was to rule at Ujjayini for 1000 years, he had only to remain in that city six months in the year, and the other six out of it. He then ascended to heaven, in his human body, where he was well received by Indra, saw Rambha and Urvasi dancing, and there was presented with the famous Sakhásana, or seat adorned with lions.

He chastised the Vétala-déva, or the king of the Devils, made him his slave, who then related to him twenty-five curious stories, to be found in the Vétala-pancha-viññati. Toward the latter end of his reign, he sent secret emissaries, through all the world, to inquire, whether a child were born of a virgin one year and a half old. The messengers returned to Ujjayini, with the news, that a male child was born of a virgin, the daughter of a potmaker, begot by the king of snakes (called Tacscha-ca, or the Carpenter, in the original,) while she was in her cradle. They
informed him also, that this child, named Śāla-vāhana, had attained the age of five years; and that his grand father had made numberless clay figures of soldiers, to amuse him.

Vicramārca marched at the head of an army, but the protecting snake came to the assistance of the child, and inspired the figures of clay with life, who started up as able warriors, attacked Vicramārca and his army, and defeated him. Śāla-vāhana cut off his head, and flung it into Ujjayini, that his death might be known to all the world. The queen was delivered, in that very month, of a male child; after which she burned herself with the head of her lord, who was re-united to the Supreme Being. Whilst the grandees of the state were assembled, to place the child upon the Imperial throne, a voice from heaven declared, that, as the child was born after the death of his father, he could not succeed to the empire of India, but only to the throne of Mālava; and the same voice ordered the Sinhāsana, or Imperial throne, to be buried in a secret place. Śāla-vāhana, who was a learned and pious man, became a Muni, and withdrew to desert places, to give himself up to devout contemplation. Major Mackenzie informs us, that in a chronological list, Vicramārca is declared to have reigned only 944 years; and in another, that it was only his dynasty or empire, which is said to have lasted so long.

The learned of the western parts of India, whom I had an opportunity to consult, assured me that the first Millenium ended about the beginning of the Christian Era, and the second Millenium, when the Muslims penetrated into the more inland parts of India; probably under Mahmood, about the year 1000 of our Era.
The year 3044 of the Cali-yuga is looked upon, by many, as the year of Vicramaścikā's death; hence in the Deccan, they have reduced his supposed reign to 944: but by others it is looked upon as the first of his reign, which then must have ended in the 1000th year, answering to the first of the Christian Era. Hence Vicrama is said, in the Tādegarāt-Assalatin, as cited by Bernoulli, to have lived 1100 years, before he re-appeared and reigned at Dīlī.

This Vicramaścikā, called also Vicramaśena and Vicramaśinh, is supposed to be the most ancient; yet his brother Bhartrihari (also named Sucāditya or Sucaraja) besides a treatise consisting of 300 moral sentences, and simply called Bhartrihari after him, wrote likewise a collection, entitled Sucasaptati or the 70 tales of the Parrot. Mention is there made of a more ancient king Vicramaśena, to whom, and his daughter-in-law Prabhāti, the Parrot relates these amusing stories. Every Vicrama has either a parrot, a demon, or statue to entertain him. Another peculiarity of every one of them is, that upon the least disappointment, or fit of ill humour, he is ready to cut off his own head, and throw it at the feet of the goddess Cali, who interposes and grants his boon. Hence it is said, that the first time he cut off his own head, Cali granted him only one hundred years; when cutting it off again, he obtained to live for 100 years more; and every time, his familiar, the Vētāla, replaced it upon his shoulders. This he did ten different times, when the Vētāla, or the devil, informed him, that this could be done ten times only, and no more, as in the case of Rāvana, as every body knows.

We read that there was a king of Pataliputra-pura, called Vicrama-śunga, who was like a lion, [sinha]: hence he is called Vicramaśinha through the whole legend. He happened to be in the holy city of Pratish-
tāna, when fifty of his relations, (the heads of whom were Mahābhatā, and his four confidential associates, Mahā-vīra-bāhu, or Mahā-bāhu, Su-bāhu, Su-bhātā and Pretāpāditya, all mahā-balas, strong and valiant men), surrounded him with a numerous army of Mahābhatādicas, or Muhammadans. He effected his escape with much difficulty, and fled to Ujjayini, where he concealed himself in the house of a rich merchant, who with his wealth enabled him to raise another army, when he attacked the Mahābhatādicas, and gained a complete victory. In the mean time, his wife Sāsilec'ha, having been informed that her lord had been killed in battle, burned herself. The merchant's son having been confined by the king of Ujjayini, Vicrama-sinha, at the head of his army, set him at liberty, and then returned to his own capital Patalī-putra-pura or Patna. It is said, in the third story of the Vētāla-pancha-vīnasī that Mahā-bhatā, or Mahā-bāhu was from Anangapura, in Ananga-dēsa, or country of Ananga; the same with Cāmaēva, which Pandits suppose to be toward the west. Muhammad is said to be the grandson of a king of India, hence he is called a relation of Vicramāditya.

In the seventh section of the Vrihat-cat'hā, we read, that there was a king of Patalī-putra-pura, called Vicramāditya, who, hearing of the growing power of Nṛśinha king of the consecrated city, or Pratijhāna, called to his assistance the Gaja-pati, (lord of the Elephants, or king of Tibet,) and the Āsura-pati (lord of horses or horsemen, or the king of Persia). The confederates took the field, but were defeated by Nṛśinha-Nākpa or Sālivāhana, with an incredible slaughter. Vicramāditya fled, with the utmost precipitation, to Patalī-putra, but meditating vengeance, he disguised himself like a car-pati, or man who carries all over India the holy water of the Ganges, and went to Pratijhāna. There he was kindly received by a rich mer-
chant, in whose house he remained a long time. King Nṛśinha, or Śa-
livāhana, happening accidentally to call at the merchant's house, they
generated each other; and Nṛśinha, admiring his comely appearance,
and also his courage and confidence, acknowledged himself overcome
by him; when Vicramaśāditya advanced, and they embraced each
other most cordially. Nṛśinha carried him to his palace, where having
entertained him in a suitable manner, they parted in peace, and Vicra-
ma returned to Pātali-putra-pura, having seemingly settled every thing
concerning their respective Eras, at least it is so supposed.

In the tenth section of the Vṛihat-caliḥā, we read that Vicrama-cesari
was prime minister to Mṛgāncadatta king of Pātali-putra. The king
used to wander, by himself, through the woods, where he often lost his way,
seemingly through some infirmity; and his prime minister used to go in
search of him. It happened once that he could not find him, and, passing
near a holy place called Brahma-sthāla, he saw a Brahmā, sitting under
a tree, near a well. Vicrama-cesari approached the holy man, who
forbade him to come near, as he had just been bitten by a venomous snake:
but Vicrama, who was well acquainted with the medical art, soon cured
him. The Brahmā, willing to shew his gratitude, asked him, why he
did not aspire to power and dominion. Vicrama-cesari seemed willing
enough, and asked him, how this could be effected. The priest re-
plied, perform the pūjā in honor of the great Vētāla or the devil, and
you will obtain from him whatever you wish; and you will become like
Vī-sama-saila with the title of Tri-Vicrama, who had the fuddhis, or
power of working miracles.

At Pratishecana, says the Brahmā, on the banks of the Gōdāvērti,
reigned Tri-Vicrama-sena, the son of Vicrama-sena. He was
thus called, because he possessed ácrama, pracrama, and vicra-
three synonymous words, implying energy in a great degree. A

Brāhmen used to come very often, and presented him every time with a

flower, in which was concealed a jewel of great value. The king respect-

fully received the flower, and afterwards threw it away into a corner,

where they all remained neglected and undisturbed. At last the king

accidentally discovered a jewel, and searching into every flower, found in

every one a gem also. When the priest came again, he asked the reason

of this strange circumstance, and what he meant by it. The Brāhmen

informed him, that, if he would come alone to a certain place, which

he pointed out, he would then reveal the whole mystery. The king did

not fail to go, on the appointed day: when the Brāhmen informed him,

that before he could unfold this secret, it was necessary, that he should

go into an adjacent grove, where was a corpse hanging upon a tree:

cut the rope, says he, and bring the dead body to me. The king, though

very unwilling, was obliged to comply, and having cut the rope, he pla-

ced the dead body upon his shoulders; and, on the road, a spirit, that was

in it, spoke, and related five and twenty stories, to amuse and deceive the

king; when, at the end of each story, the corpse flew back to its tree, and

every time Tri-Vicrama went and brought him back, and being at

last irritated, he took care he should no more escape. Then the spirit

informed him, that the Brāhmen wanted to destroy him, and usurp his

throne. For this purpose, he was going to perform some magical rites,
in which a dead corpse was absolutely necessary; and that this was

the reason, why he had insisted on the king bringing him a dead body.

Tri-Vicrama-śena being satisfied with the truth of this information,
prompted the Brāhmen to death; and Mahādeva appeared to him, saying,
thou wart before Vicramāditya, a portion of my own essence. I

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have now generated thee in the character of Tri-Vicrama, to destroy the wicked; and ultimately thou wilt be Vicramaditya again; and, when thou diest in that last character, thou wilt be re-united to me. This alludes, according to the learned, to the two Millennia of Vicramaditya. This legend is a little obscure, and the compiler seems to have jumbled together the legends of Vicramaditya and Sālīvāhana; though of the latter, no mention, by name at least, be made.

As Viśama-sīla was at first king of Pratishṭāna, he was of course the same with Sālīvāhana; and the first part of the legend has an obvious reference to him, in that character. Vicrama-cesari appears to be the Śrī-Carṇa-deva-Rāja-Vicrama, with the title of Āditya, who dethroned his sovereign, taking advantage of his infirmities; and this Vicrama-cesari, in the third story of the Vētāla-panchavīnāti is declared to be king of Pātali-putra-bhu-mandalam, or country and region of Pātali-putra, as every body knows; and his wife’s name was Chandraprabhā-Magadhi, being a native of Magadhā.

It is said, in some legends (1) that three male children were born the same day: one the son of a Brāhmen, the second a Cshettri, and the third a Vaiṣya: some add a fourth of the Śūdra tribe. It was foretold, that one of them would become king, or at least remain so without being molested, if a king already; but not before the two others had been put to death. The Brāhmen, hearing of this, easily circumvented the Vaiṣya, who was a Taṭi or oil man, with whose body he wanted afterwards to perform a most abominable sacrifice, to Vētāla, or the Devil, in order to destroy Vicramaditya. Maḥā-deva became incarnated in the person of Tri-Vicrama at Ujjayini, or rather Pratishṭāna, on the following occasion. The Gods, that is to say the Brāhmens and

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(1) In the Bhāja-prabandha.
being vexed by the Mléch'has, or foreign and impure tribes, went in a body to Cailása, to Maḥā-deva, to whom they said, you and Vishnu have destroyed the Asuras or Dāityas, but these are born again on earth as Mléch'has. They vex the Vípras or Brāhmens, and will not allow the performance of religious rites and sacrifices, destroying all the religious instruments, and other requisites: they even carry away the daughters of holy Munis. In consequence of this remonstrance, Tripurārī or Maḥā-deva, was incarnate, in the house of Suramahendraditya-Jagatjaya, at Ujjayini, who was making Tapasya to obtain a son. As soon as his wife had conceived, the heavenly host came down to worship her. The high priest and prime minister, who were also childless, obtained each a son; and young Vicramaditya, called also Vi-samasila in this place, soon surpassed his teachers in learning and wisdom.

The old king resigned the throne to him, and then withdrew to Benares; and Vicramaditya became king of heaven, hell, and earth: the genii and demons were obedient to him, and his fame reached the White island in the sea of milk, or White sea. His general Vicramaśaṭṭi conquered Daśhīna-pāṭha (or the Deckin,) Madhya-desa (or the inland parts of India) Casmár and Saurashtra (or Soret,) and the countries to the east of the Ganges. He forced Vīra-sena-Sinhalēśwara, or the king of Sinhala or Ceylon, to sue for peace, and to give him his daughter, and Cūca (or Cutta) was obliged, at last, to submit. He extirpated several tribes of Mléch'has, and others surrendered at discretion. He married, at Ujjayini, three wives, Gūnavatī, Chandrāvatī and Madana-sundari: wishing to marry a fourth, he saw, in the house of Visvacarma, a beautiful damsel, daughter of Calinga-senī.
king of Stambhasa (now Cambat, or Cambay) in Calinga-desa. He sent
a trusted man, to demand her of her father, who refused his consent:
but Vicramaditya sent one of his attending spirits, who soon obliged
him to comply.

This is, it seems, the Vicramaditya who obtained a famous boon
from Indra, in favour of his favourite country Malava, that it should
never be visited by drought. In his time there had been no rain for
twelve years, owing to Sani (or Saturn) passing into the house of
Suckra (or Venus) in Vrisha (or Taurus) through the Sacala-bheda (or
section of the wain) in Rohini (or the stars near Aldebaran.) In the time of
Dasarat'ha, Saturn, the offspring of the Sun, attempting to go
through thispath, was prevented by Dasarat'ha, and hurled down, in-
to a country which he set on fire, and it was from that circumstance
called Barbara.

In the Sinhasana-dwitrinsati, the twenty-fourth statue is introduced, giv-
ing to king Bhoya an account of Vicrama, and of Salivahana. There
was, in Purandarpura, a rich merchant; who, before he died, gave to ev-
evy one of his four sons an earthen pot, sealed, with injunctions not to open
it, till after his decease. When opened, the first was found to contain
nothing but earth; the second coals; the third bones, and the fourth
bran. Vicrama was applied to for an explanation, but neither he nor
any body else could explain this enigma. The four sons went after-
wards to Pratishtana, and neither the king nor any body else there
could give them an answer, but there was a wonderful child, who did.
There were two Brahmens, who had a filler, who lived with them in
a state of widowhood, her husband having died, whilst she was yet very
young. She conceived by a Nāga-cumāra (or Teṣhaca); and the brothers, ashamed at this seeming disorderly behaviour of their sister, left the country. The unfortunate young widow, thus deserted, found an asylum in the humble cottage of a potmaker, where she was delivered of a male child, whom she called Śālivāhana. The child, hearing of this strange case, went to the king’s presence, where the four sons of the merchant were, with a numerous and respectable assembly. He spoke without embarrassment, and they were astonished, for his words were like amṛt or ambrosia. The first pot, says he, containing earth, entitles the owner to the landed property of his father. The second contains coals, and of course all the timber and wood become the property of the second son. The third is entitled to the elephants, horses, cattle and animals of all descriptions belonging to the estate; and the fourth is entitled to the corn and grain of all kinds, the property of his father. Vicramaḍitya, on hearing of this, sent for the child, who refused to come: go, says he to the messenger, and tell him, that when I have completed my business, or in other words, when I shall be perfected, or my time is arrived, he will come to me of himself. Vicramaḍitya, irritated at this answer, wanted to kill him; and advanced, at the head of a numerous army, against the child, who, making figures of soldiers with clay, animated them. They fought on both sides, with courage; but the Nāga-cumāra, or son of the great serpent, frightened Vicrama’s army; who, finding his soldiers asleep, implored the assistance of the serpent Vaśuci, who gave him some amṛt, with which he revived his troops; and Śālivāhana, hearing of this, sent two men for some of it, and Vicrama complied with his request: and
here ends the legend, which was introduced only to give an instance of Vicramaditya's unbounded generosity.

The next Vicramaditya, and whose history is best known all over India, was the son of Gardabharupa, or he with the countenance of an As; and an account of him is given in the Vic'ama-upāch'hyāna, or first Section of the Sinhāsana-dvātṛinsāla.

The next Vicramaditya was the famous king Bhōja, who recovered the Sinhāsana, and going to the White island, dived into the infernal regions, where he saw the apartments of Crīshna, or Vishnu; and close to them those of Bali, who received him kindly, and bestowed upon him the title of Vicramaditya; and his son, called Jayānanda, was styled allo Vicramaditya. According to others, Jayānanda was only either the adopted son, or the son-in-law of Raja-Bhōja, having married his daughter Bhānu-matī.

The principal feature of the history of these Vicramadityas, as I observed before, at whatever period they lived, is their quarrels with a certain king, called Sālivāhana, with the title of Nṛśinha, Nāgacumāra, Nāgendra, &c. except one, who is introduced as contemporary with Muhammed, and waging war against him, and his followers the Mahābhatādicas. Even in the time of Jayachandra, the last emperor of India, we find, in Persian records, a Sālbāhan, king of Dīlī; and in the district of Budhaon, in that province, there is a small town, the capital of a Pergannah of the same name, called Core-Sālbāhan or the Fort of Sālbāhan, and said to have been built by him.

The chief authorities, after the Vicrama-charitra, and the other books I have mentioned before, are the last sections, or rather supplements to
the Agni and Bhavishya-purānas, the list of the kings of Mālwā in the
Avin-Āceberi, the Vansāvah or Rājavāli, written by Rāja Raghunātha
of the Cach'īwā tribe, at the command of the Emperor Aul-
rengebe, and lastly a list of the Bala-Rāyas, or Balhara Emperors,
and of the sovereigns of Mālwā. The last section, or rather supple-
ment or appendix to the Agni-purāna is the best chronological list
that has come to my knowledge. It is seldom found annexed to that
Purāna; no more than the appendix to the Bhavishya. I was however
fortunate enough to find it, at the end of a copy of the Agni-purāna;
at least two hundred years old, and, though complete, almost worn out.
There I found the beginning of the appendix on futurity, exactly in the
same hand writing with the body of that Purāna, and the owner most
kindly made me a present of the last leaf, which contains both the end
of that Purāna, and the beginning of the appendix. In a copy of that
appendix, it is said to be the 63d and last section of the Agni-purāna.
The numbers do not correspond now, though it be acknowledged, that
the division of the Purānas into sections has not been the same, at all
times, and in every part of India.

With regard to the appendix, or section of the Bhavishya-purāna, it
is obvious, that it never made part of that Purāna, at least in its present
state: but, as it treats of futurity (Bhavishya), it was probably on that
account attributed to it; for it appears that it belonged originally to some
astronomical treatise, and it is very much like the preliminary section
to the Bhūtirvidābhāraṇa. It is supposed by some, that it is a short ex-
tract from the second part of that Purāna, which either no longer ex-
ists, or is not to be commonly found. In the first part, there is not a
word about futurity, or the times to come.
These lists are the more valuable, as they give us an account of the Emperors of the west in India, of whom little or no notice is taken in the Purānas. The chief object of the compilers seems to be to establish the chronology of the western parts of India, since the expulsion of Chānacūya, down to the death of Pīthaurā, and Jaya-Chandra, in the year 1192. The three first lists are nearly the same, and probably they were originally so; and as the list of the Emperors of the west in India, in the Ayin-Acheri, is one of them, it is obvious, that above two hundred years ago, they were considered, by the Pandits who assisted Abul-Fazil, as authentic documents.

The fourth list is from a work entitled Vansāvali, or the genealogies; but more commonly called Rājāvali, or reigns and successions of kings. It was written in the year 1659, by Rājā Raghunātha, of the Cach'nwa-tribe, at the command of Aureng-Zebe. This has been translated into all the dialects of India, and new modelled, at least twenty different ways, according to the whims and pre-conceived ideas of every individual, who chose to meddle with it.

It is however the basis, and ground work of modern history, among the Hindus; as in the Khulāsit-ul Tawārīc, and the Jadherat-ul-ulātān. The latter treatise is a most perfect specimen of the manner of writing history in India; for, excepting Raghunath's list, almost every thing else is the production of the fertile genius of the compiler, who lived above a hundred years ago. In all these lists, the compilers and revisers seem to have had no other object in view, but to adjust a certain number of remarkable epochs. This being once effected, the intermediate spaces are filled up with names of kings, not to be found anywhere else, and most probably fanciful. Otherwise they
leave out the names of those kings of whom nothing is recorded, and attribute the years of their reigns to some among them better known, and of greater fame. They often do not scruple to transpose some of those kings, and even whole dynasties; either in consequence of some preconceived opinion, or owing to their mistaking a famous king for another of the same name. It was not uncommon with ancient writers, to pass from a remote ancestor, to a remote descendant; or from a remote predecessor to a remote successor, by leaving out the intermediate generations or successions, and sometimes ascribing the years of their reigns to a remote successor or predecessor. In this manner the lists of the ancient kings of Persia, both by oriental writers and others in the west, have been compiled: and some instances, of this nature, might be produced from scripture. I was acquainted lately, at Benares, with a chronicler of that sort; and, in the several conversations I had with him, he candidly acknowledged, that he filled up the intermediate spaces between the reigns of famous kings, with names at a venture; that he shortened or lengthened their reigns at pleasure; and that it was understood, that his predecessors had taken the same liberties. (His lucubrations were of little use to me; but he had collected various lists of kings, of which he allowed me, with much difficulty, to take copies.) Through their emendations and corrections, you see plainly a total want of historical knowledge and criticism; and sometimes some disingenuousness is but too obvious.

This is, however, the case with the sections on futurity in the Bhāgavat, Vāyu, Vishnu and Brāhmaṇḍa-purāṇas; which, with the above lists, constitute the whole flock of historical knowledge among the Hindus;
and the whole might be comprised in a few quarto pages of print. These I have collected together, with notes, derived from the assistance of foreign writers; and hereafter they may be corrected, from a few historical passages in their books, grants and inscriptions, which last must be used soberly. With regard to these lists, their being brought down, even to our own days, can be no objection; for it is the case with many of our old chronicles. We have them in the Ayin-Acheri, in the state they were in at that time. I have some copies, in which their chronology is brought down to the reign of Aureng-zeb; and lastly some, in which the arrival of the English is foretold, under the name of Tamra-varna: foreigners, the offspring of Maya, the engineer of the giants, and the son of Vashtá. Tamra-varna literally signifies copper-coloured, but is interpreted Aruna-varna, or of the colour of the morning dawn; and, in lexicons, the Greeks, or Yavanas, are said to be Tamra-varna. In Raghunath’s list, it is remarkable, that no obvious notice is taken, either of the elder Vicramaditya, or of Salivahan; they are however concealed under the names of Aditya, ridiculously written Adhesht by Tieffenthaler, and under that of Dhananjaya, which last is meant for Salivahan. Aditya is obviously meant here for Vicrama; in some copies he is called Hara-bhaga, or a portion of Hara the destroyer; because it was necessary that he should destroy 550,000,000 men from among the impure tribes, before he could obtain the rank of a Saciswara: and whatever man kills a Saciswara only, obtains that exalted rank, as did Salivahan.

Dhananjaya, or Dhanidhara, as he is called also, is supposed by Abul Fazil, to have been the grand-father of Salivahan (1):

but, as there are several kings, and legislators, called Vicrama; in the same manner, we find also several Salivahanas. This grand son of Dranajaya is made contemporary with another Vicramaditya, who is supposed to have begun his reign A.D. 191; but, according to others, either in the year 184 or 200. In Raghunath's lists, current in the western parts of India, which have appeared in print, instead of Salivahana, we find Samudrapala, perhaps a disciple of his, and thus called, because he came by sea. In this remarkable instance, these lists differ, most materially, from those in use in the Gangetic Provinces, and eastern parts of India. In the latter, in the room of Vicramaditya, we read Suraca or Sudraca, a famous Emperor of India, mentioned in the Puranás, and of whom it is said, in the Cumáricá-chanda, that he would ascend the Imperial throne, after 3290 years of the Cali-yuga were elapsed, that is to say, in the year of our Lord 191, and that he would reign in the city of Charchila; thus called from the search (cherche in French) or inquiries, made there into various religious opinions, and new dogmas; and thus it is understood, by learned men from the west of India, and it appears that there were several cities thus called. This Sudraca had also the title of Vicrama, and of Aditya; but in the eastern lists, no mention is made of Samudrapala. Tiefenthaler takes notice of him, and Bernoulli has given us the whole legend, such as it is in the M. S. S. copies.

When Vicramaditya was ninety years of age, then came Samudrapala, or he who was fostered, or wafted over, by Samudra, or the ocean, because it is understood, that he came from distant countries by sea. He appeared in the character of a holy man, working miracles, and, as it seems, preaching about regeneration. He was kindly received
by Vicramaditya, who being old and decrepit, wished very much to be regenerated. Samudra-pala complied with his wishes; and, as there was a stout young man just dead, he directed the old king to send his own soul into that corpse, and showed him how to do it. Vicramaditya did so, and the young man revived immediately, to the great astonishment of the multitude. In the mean time, Samudra-pala conveyed his own soul into the body of the king; and, in that old and decrepit frame, he contrived to maintain himself, for the space of 55 years, or more correctly 54 years, two months, and twenty days; and thus governed the country, with unlimited sway, in the shape and character of Vicramaditya. These 55 years being added to the 90 years of Vicrama's life or reign, the sum, 145, is exactly the difference between the eras of Vicrama, and Sālivāhana, in the Dekhin; for, in the northern parts of India, they reckon only 135 years. This new Sālivāhana, or rather his disciple, or follower, if he ever existed, died in the year 335; for this second Vicrama, or Sudraca, as he is called in the Camārika-chanda, ascended the Imperial throne in the year of Christ 191: but in Raghunath's list, this event took place in the year 291. That there is an error of 100 years is obvious, on the authority of the above section of the Scanda-purāṇa, and also from the particulars in the same list. There it is declared, that the succession of the Hindu princes ended in the year of the Cali-yuga 4116, answering to that of Christ 1016; but the particulars give 1116; and, by retrenching these 100 years, the aggregate sums, resulting from the subordinate periods, perfectly agree with the general one, as given at full length in the list. These subordinate periods become also proportionate to one another, from Mahabali's accession to the throne, 355 B.C. down
in the year 1916 of our Era. The reason why these 100 years, and a few more in another place, were introduced, is that the correctors of this lift confounded the final overthrow of the Hindu Empire, in the year 1192, by Saebuddeen, with the mortal wounds given to it by Sebecteghin, and his son Mahmur, in the beginning of the eleventh century. In all the copies, which I have seen, of Raghunath's lift, no obvious notice is taken of the famous Emperor Bhója: yet the learned insist that he is concealed there, under the epithets of Deva-Dhára-sinha, as he is called in some lifts, and Sáila-Dhára-sinha in others: but in many copies these names are written erroneously Damo-Dhara-sena, and Jala-dhara-sena. In the Bhója-prabandha the epithet Deva is always prefixed to his name, thus Deva-Bhója; and in the room of these various surnames, we find in some copies Divayana-sinha. As Bhója was king of Dhárá (now Dhár) he might certainly be denominated Dhára-sinha. This famous city is called also Sáila-dhárá, and Bhója is called Sáiladitya, or Vicramaditya, who resided at Sáila-dhárá, in the Satrughana-mahatmya; and in the same manner Sálivahana is denominated Pattan-sinha or Šena, from the town of Pratischná (or Pattan) where he is said to have resided. If so, the new modellers of these lifts have introduced many obscure, or rather fictitious names, in order to fill up the space, between that emperor and the downfall of the Empire in 1192, by Saebuddeen, which they have confounded with the catastrophe under Mahmur-ben-Sebecteghin. In various lifts, which I have seen, Sebecteghin's name is written Sebectekin, Sanectekin, Nectekin &c.
As Bhōja is not noticed by any foreign writer, it is impossible to ascertain the time in which he lived, from the vague and contradictory data to be found in Hindu romance, within 100 years at least of the real time. Such is however the state of the Hindu chronology, even in modern times: and from such wretched materials what can be expected? Western historians, and those of China, have occasionally recorded eclipses, which are of great service in chronology; but they are absolutely disregarded by Hindu writers; at least, I have never been able to procure a single observation upon record, and connected with any historical fact, or the reign of any well known king or emperor.

In these different lifts, the principal Eras are, the accession of Mahā-Bali to the Imperial throne, 355 years B. C. his death in 327, the massacre of the Imperial family in 315, and finally, the expiation of Chaṇḍacya, 312 years B. C. and of these remarkable events I took particular notice, in my essay on the Gangetic Provinces.

The next remarkable Era is that of Śālivähana and the eldest Vicramadītya: this the compilers and revisers have wrapt up in such darkness, and I believe designedly, that it is almost impossible to recognize these two famous kings. In some, Śālivähana is called Pātannātha; in others Dhananiyā, Dhanadhara &c. Śaca, Śactiśāhini; and in the Vṛihat-cathā, Sama-sīla, and Vi-sama-sīla, and lastly Ĥala and Śala, Hali and Sali, Nṛśingha, Ucchara vahana Vicramadītya is sometimes called Adita, simply; in other places Vicrama, Vicramamitra, Vicrama-tunga, Vicrama-śīna, Vicrama-sēna, Vicrama-cēsāri, Vicramārca &c. whilst he is sometimes left out entirely; which is immaterial, as they say, when Śali-vahana, his antagonist, is mentioned.
The third epoch is that of king Suraka, called also Aditya, and Raja-Vicrama, who began his reign in the year 191.

The fourth Era is that of Vicramaditya the son of Gandharupa, whose reign began in the year 441.

The fifth is the appearance of Mahá-bhát or Muhammed; and the sixth is the accession of Bhója, called also Vicramaditya, to the imperial throne.

The seventh Era is the defeat and death of Pithaura in 1193, and that of Jaya-Chandra, in the year 1194.

Let us now examine and compare together the lists in the appendix to the Agni, and to the Bhavishtya-puráñas, and also in the Aym-Acberi. In the Bhavishtya, the years are omitted, but it agrees otherwise with the other lists, as much as can reasonably be expected.

There are three kings, in the appendix to the Agni puráña, seemingly in a regular order of succession; but who are to be rejected from the list; as it appears, from the context, that they were only in a collateral line, and seem to have been rebellious vassals, who, taking advantage of the weakness of their liege, set up for themselves, in their own country. The first was a rebel of the name of Ataca, as seen by his name, who made himself independant, and resided in the town of Thára. He lived 190 years; that is to say, his collateral dynasty lasted for many years, and this dynasty was very properly omitted in the Aym-Acberi. Then comes Such-sena, or Sumuch'-sena, with another king called Cha'dga or Charga; and these resided at Chitra-cútá in Bundelc'hand, as asserted in that Section of Appendix. Sumuch'ha-sena is called Keneck-sein in the
Ajin-Acheri; and in that treatise, Chitra-cûla, their metropolis, is metamorphosed into a king, to whom a reign of one year only is allotted. The names of the three next princes, Chandrapala, Mahendra-pala and Kurram-chund, in the Ajin-Acheri, should be written in this manner, Rama-chandra, who did not reign: his son was Chitra-pala, who was elected Emperor of India after the death of Jayananda. His son and successor was Mahendra-pala; but I conceive that the true name of the latter was Mahendra-pala.

From Chancaya's expiation, to the first year of Vicramaditya, the son of Gandharupa, the three lists do not materially differ from each other, with regard to the number of kings, and the order of succession. The greatest difficulty is, from the first year of Vicramaditya, the son of Gandharupa, or Harsha-megha, which last is a ridiculous epithet for an Ais, to the first of Bhoja. The greatest part of the names of the kings, in this list, are probably fictitious, except some of the most illustrious. The first we recognise is Mahabali, or Nanda, who ascended the throne of India 355 years before Christ. From his accession, there elapsed 299 years, according to Raghunath's list, to the death of Vicramaditya, which happened 56 years B.C. Then appears Dhananjaya, who put to death Aditya: these are Salivahana and Vicramaditya: the times coincide, and the name of one of them, Dhananjaya is also the name of Arjuna in the Mahâ-bhârat, of whom it is said, that he did not exult over the ignorant and ill-favoured: but spent his riches among the needy: in short he was the wonder of all good men. This is the character given of Salivahana in the Cumâricâ-chanda, and the Agni-purâna.
second Dhananjaya, called also Dhanandhara, is reckoned as an
Utpata or prodigy, and some account of him is given in the Ayn-
Acheri (1) and also in traditionary legends. He sprang suddenly from
the middle of a temple at Pratishāna in the Dekhin, in a human form,
and with a divine countenance, holding a bright sword. He attacked
Āditya, or Vicramaditya, whom he put to death; then, leaving
the Dekhin, he made Ujjayini the seat of his empire. In the grant
found at Monghir, allusion is made to Vicramaditya, under the
name of Śacadwishi, the foe of Saca or Sālivāhana; and it is not
improbable that the prime minister, in the inscription on a pillar
at Budaul, is compared to Sālivāhana, under the name of Dhanan-
jaya (2).

There were undoubtedly many Vicramadityas; but which of
them instituted the Era, denominated after him, is by no means obvious.
For there is hardly any instance, I believe, of any sovereign or legis-
lator, that ever instituted an Era called after him, and beginning with
some memorable event, during the course, either of his life or of his reign.
Any one of them might have instituted the Era; but it does not follow,
that he lived at the beginning of it. The author of the Vansāvālī,
and in general all those, who have attempted to new model his lift,
say that the Era of Vicramaditya was instituted by his brother
Bhartrihari, or Sucaditya, who is called Sācūwanta on that
account. He reigned fourteen years; and after his death, Vicrama-
ditya took it up, made some corrections, and had it called after his own

(1) Vol. 2d. P. 54.
(2) Asiatic. Research. vol. 1st.
name. This circumstance is noticed by Bernoulli, from the Tadkerat-Assalatin; but the copy in Mr. Harington's possession is the most explicit on this subject, and I find that it is by no means a new idea. According to some, these fourteen years are the difference, between the Era of Vicramaditya in its corrected, and the same in its original state. This Sucaditya is called also Vicramaditya in the Dekhin, and is said to have begun his reign in the year of the Cali-yuga 3020, and to have died in the year 3034, from which they reckon the Era of Vicrama: but in the northern parts of India, they say that he began his reign in the year 3030, and died in the year 3044. Yet this Bhartrihari, in the collection of tales attributed to him, alludes to another Vicramaditya, who from the context certainly lived long before him. Such is the uncertainty about this famous Emperor, that we are obliged to distinguish, between the years since the time of Vicramaditya and those of his Era. Thus, in the Satujayamahatmya, we read, that after 465 years of the Era are elapsed, then would appear the great and famous Vicramaditya; and then, 477 after him, Sairaditya, or Bhoja, would reign. In the Ayin-Aeberi, the various dates, from the Era of Vicramaditya, are to be reckoned from his accession to the throne, in the middle ages of the Christian Era.

The third epoch in my life, and most of the lists in the eastern parts of India, is that of Suraca, who was succeeded by his brother Crishna, according to the Puranas. He began his reign in the year 191, and was also considered as a Vicramaditya, or rather a Samvatica or author of a civil period; and of him also I took particular notice, in my essay on the Gangetic Provinces.
The next period is that of Vicramaditya, the son of the man with the countenance of an As. He is called in the list Gandha-pala, or fostered by an As. This prince is omitted in several copies from the west, and between Gandha-pala and Vicramaditya, or Vicrama-pala, as he is called in these copies, there intervenes a king, called Sadatpala. This Vicramaditya had two sons, one called Tilaca-chandra, who reigned only two years, and was succeeded by his eldest brother, Vicrama-sena, or Vicramaditya; and this Tilaca-chandra appears in the character of Bhartrihari.

The next period is that of Mahabhat-Sriman-Maharaja, or Muhammed the blessed, or fortunate, the great commander of the faithful. In various copies, he is called Mahabhattaraca, and Mahabhattarica. In Mr. Harington's list, the epithet of Parasu, answering to Seifullah in Arabic, or the sword of God, is prefixed to his name. In all the copies from the west of India, he is called Mahaprema, for Mahaprama, or Parimara, the great destroyer; and, to the names of his four confidential associates, the epithet of Prema, or Pramara, is also added. Instead of Prema, we should read Pramara, or Parimara, the destroyer; for, in the Satrujaya-Mahatmya, a favourite tract of the Jainas, he and his friends are called the Pancha-Maras, or the five destroyers. It is said there, that Jina, in his last incarnation, as Gautama in the shape of a white elephant, and therefore enominated Sri-Hasti-sena, having obtained eternal bliss, then, three years eight months and fifteen days after this event, there would appear Sacra-Pancha-Mara, who would put an end to all Dharma, or religion (1). Thus, the death of Gautama.

(1) Sacra, or the mighty chief.
happened in November 617: and his death, in the Puránas, and according to the Japaneese, is placed, either late in the sixth, or early in the seventh century. Pramára the great destroyer, or Pári-mára, he who destroys all round, is one of the titles of Yama, and very applicable to Muhammed. The Hindus, in the western parts of India, are well acquainted with the famous Cháryári of the Musulmans, or the four friends and associates of Muhammed. Some, with a little straining, derive this name from the Sanscrit; and thus, the four destroyers, with their leader, become the Pancha-Máras, or the five destroyers. Mr. Harington's lift, which was brought from Affam by the late Dr. Wade, seems to have been new modelled by the Jaina's; as Gautama is introduced there, waging war against a certain Manu.

The next subject of inquiry is the Cumaricá-chanda, a section of the Scanda-purána. The copy in my possession was written in Gujjarát two hundred and thirty years ago; or in the year of Vicramáditya 1630, A. D. 1574; and in the year of Vicrama 1796, or A. D. 1740. It was the property of a learned Pandit, who made several corrections in the margin, as usual in India. The owner of that section, 230 years ago, obviously considered it as authentic, and as making part of one of the canonical books; and the copies in general use, in this part of the country, do not materially differ from it. According to the context, this Purána must have been written, when the Roman Empire, probably in the East, was in the zenith of its glory; for the author mentions it as the largest in the world, and says that it consisted of no less than 18,030,000 villages, or rather parishes; and he speaks of it as existing, in that powerful and extensive state, in his own time. Six dates only are given in this section. The first is Sudraca or Suraca,
who was to appear when 3300 years, save 10, of the Cali-yuga, were elapsed, in the city of Charchita.

The first Vicramaditya is mentioned, in the Cumáricá-chanda (1); 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, Brahmanda, Váyu, and Vishnu puránás, 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 Vicramamitra; who, according to some, reigned fourteen years: and in these lists, the father, or predecessor of Vicrama, is called Ghosha-Raja, or the king of thickets, which is another name for Gandharupa, or Gadha-rája in the west. This looks like an interpolation; and the more so, as it will appear hereafter, that Ghosha-Raja died in the year 440 of our Era.

This is the Vicramaditya, after whom the present Sambat is supposed to be denominated; and it is the general opinion, that the first year of it is the next to that in which he died. Yet the Pandits, who assisted Abul-Fażil, declared that it was the first of his reign; it is also the opinion of many respectable Pandits, particularly in the western parts of India. This is more conformable to a passage in the Cumáricá-chanda (2), in which it is declared, that after 3160 years.

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(1) Paragraph, 42d.
(2) Paragraph, 42d.
of the Cali-yuga were elapsed, then would Saca, or Salivahana, appear. By this first year of Salivahana, we must not understand it, as meant of the first of his Era; but of the first of his reign, which is unconnected with his period. In that case, Vicrama-raca lived 56 years; his death happened then in the 57, or the first of the Christian Era, the very year in which Salivahana, the lord and master of Rome, made his appearance, and after whom the Era, in use through that empire, is denominated.

The second Vicramaditya is the same with Sri-Carna-Deva, called also Sudraca and Suraca; and is mentioned in the Vetalapancha-vinsati, under the name of Vicrama-cesari, prime minister of the Emperor of India, at Patali-putra-puram. It is he, to whom a Brähmen gave strong hints, to seize upon the throne, and avail himself of the infirmities of his master. He is the Vicramaditya mentioned by Ferishta, in his history of India; and whom he makes contemporary with Sapor, king of Persia. He is also mentioned in the Bhôja-charitra; for, when Rájá-Munja wanted to destroy secretly young Bhôja his nephew, the latter, being apprised of it, effected his escape, and wrote to him several couplets, well known to the learned; wherein, reproaching him with his dark and base scheme, he says, "Sri-Carna-Raja-Vicrama is no more, and he carried nothing along with him out of his immense treasures; but died like another man." From that circumstance, the title Sri-Carna-Raja-Vicrama was conferred upon Bhôja by posterity. It seems that he attempted to establish an Era of his own, which however did not last long. The Pandits, who waited upon Abul-Fazil, informed him, that several princes had attempted, to set up Eras, denominated after their own names; and this is also asserted
by many learned men now; but these new \textit{Eras} were soon doomed to oblivion.

The third \textit{Vicramaditya} was the son of \textit{Garbardabharupa}, or \textit{Rashabha-sena}, or the man with the countenance of an Afs. That name is pronounced \textit{Gadhā-rupa}, or \textit{Gandha-rupa}, in the spoken dialects; and he is called also \textit{Gadhendra}, or the lord of Asles, and \textit{Ghoshā-rāja}, or the king of thickets and bushes.

In the list of the Emperors of \textit{India}, in the annexed table, he is called \textit{Gandha-pāla}; and, at \textit{Ujjayini}, his name is \textit{Gandha-rūfusena}, according to Dr. Hunter of our Society (1). A. Roger writes it \textit{Veneroutfsi}, or \textit{Guerneroutfsi}: but says, that it was the name of the sister of \textit{Vicramaditya}, who, they insist in the \textit{Deccan}, was himself the son of a \textit{Brāhmaṇ of Benares}, called \textit{Chandra-gupta}; and there is a fullsome account of the birth of this \textit{Vicrama}, in the first section of the \textit{Sinhāsana-dvātrinsati}, called \textit{Vicrama-Upācyāna}. "In \textit{Gurjjaramandal} are the \textit{Sābharamati}, and \textit{Mahi} rivers: between them is a forest, in which resided \textit{Tamra-lipta-rishi}, whose daughter married king \textit{Tamra-sena}. They had six male children, and one daughter, called \textit{Madana-rechā}. The king had two young lads, called \textit{Devasarma} and \textit{Hari-sarma}, whose duty chiefly was, to wash, every day, the clothes of their master, in the waters of the nearest river. One day, as \textit{Devasarma} went, by himself, for that purpose, he heard a voice saying, tell king \textit{Tamra-sena} to give me his daughter; should he refuse me, he will repent it. The lad, on his return, mentioned the whole to his master; who would not believe it, and next day sent \textit{Hari-sarma} to the

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(1) \textit{Asiat. Research.} Vol. 6th. P. 35.
river, who heard the same voice also, with the threats in case of a refusal. The king was astonished; and, going himself, heard the voice also. On his return, he assembled his council; and, after consulting together, it was agreed, that the king should go again, and ask him who he was. The supposed spirit, being questioned, answered, I am a Gandharva, or heavenly Choirister; who, having incurred Indra's displeasure, was doomed to assume the shape of an Ass. I was born in that shape, in the house of a Cumbha cara, or potter, in your capital city; and I am daily roving about, in quest of food. The king said, that he was very willing to give him his daughter; but that he conceived, that such an union was altogether impossible, whilst he remained in that shape. The Gandharva said, trouble not yourself about that; comply with my request, and it will be well with you. If, says the king, you are so powerful, turn the walls of my city, and those of the houses, into brass; and let it be done before sun-rise tomorrow. The Gandharva agreed to it; and the whole was completed by the appointed time; and the king, of course, gave him his daughter. Several learned Pandits inform me, that this Gandharva's name was Jayanta, the son of Brahma. When cursed by Indra, he humbled himself; and Indra, relenting, allowed him to resume his human shape in the night time; telling him, that the curse should not be done away, till somebody had burned his ass-like frame.

It is said, in the Vierama-Upachyana, that the mother of the damsels spied them once in the night; and, to her great joy, found that the Gandharva dallied with her daughter in a human shape. Rejoiced at this discovery, she looked for his ass-like form, and burned it. Early in the morning, the Gandharva looked for this body of his, and found that it had been destroyed. He returned immediately to his wife, in-
forming her of what had happened, and that his curse being at an end, he was obliged to return to heaven, and leave her. He informed her also, that she was with child by him, and that the name of the child was to be Vicramáditya: that her maid was with child also, and that the name of the child should be Bhartrí-hari. He then left his wife, who resolved to die; and, ripping up her own belly, she took out the child, and intrusted it to the care of a Málíni, or the wife of a gardener, or a flower woman. 'Go, said she, to some distant place, and there remain concealed; because my father will attempt to destroy the child.' The Málíni went to Ujjayini, with the maid; and from the signal preservation of the child, in that city, it was also called Avanti, from the Sanscrit awa, to preserve.

In the Agni-puráṇa, the father of the damsel is called Sadasva-
śena, in the Bhavishya-puráṇa Vasúd'ha: Ferishta says that his
name was Basdeo; whom he represents as Emperor of India, and residing at Canouge; but the author of the Vicrama-Upách'yaína, says that he was a powerful prince, in the west of India, and possessed of the countries, which we find afterwards constituting the patrimonial territories of the Balahara, which included Gurjjarás'híra (or Gujjarás') with some ad-
jacent districts. In the Ayin-Aberi he is called Sudhrowsheneh, and at Ujjayini, Sundersená, according to Dr. Hunter, who says that this incarnation took place in the time of that prince. (1) This is obviously the history of Tésdéjírd, son of Bahram-Gór, or Bahram the As, king of Persia: the grand features are the same, and the times coincide perfectly. The amours of Bahram-Gór, with an Indian princess, are

(1) Asiatic Researches Vol. 6th. P. 35.
famous all over Persia, as well as in India. According to D'Herbelot, there is still a romance in Persian, called the amours of Bahram and Gul-Endam, the Indian princess.

This Vicramâditya ascended the throne of Malava, in the year 441, reckoning from the first of Sâlivâhana; and 753 years after the expiration of Chânacya, according to the Agni-purâna, answering equally to the year of Christ 441. In the Bhavishya-purâna, in which the years are omitted, Vicramâditya is placed in the same order of regular succession; conformably also to the list of the Emperors of India, in the annexed table. Du Fresnoy, in his Chronological tables, (1) says, that the first year of his reign answered to the 441 of the Christian Era; and the authors of the Ancient Universal History place this event in the 442d: and surely no greater degree of precision could be expected (2).

This Vicrama was the son of the man with the countenance of an Ass; but his grand father was Ati-Brahmâ, in the Ayin-Acheri, and whose father was Brahâ. Now Yazdejîrd, called Isdigerthes by the Greeks, was the son of Bahram with the nick-name of Gur or the Ass. His grand father was another Yazdejîrd, called also Varames or Baram, with the title of Athim, and answering to Ati-Birmah; and whose father was called Bahram, the same with Brahâ, Birmah, or Bahram, as his name is spelt by Tiefenthaler, and in many MSS. lists. (2) The Greeks pronounced it Varames, and ever Baram, as it is written by Theophylact Simocatta. (3) Jayanta, the son of Brahâ, incurred the displeasure of Indra, king of the

(1) Du Fresnoy Vol. 2d. p. 408.
(3) See Photii Bibliotheca. p. 87.
elevated grounds of Meru, or Turkestan; and was doomed, by him, to assume the shape of an As, in the lower regions. Bahram-Gūr, or the As, likewise incurred the displeasure of the Khicān, or mortal king of Meru. He ascended the throne of Persia; and, after having overcome his enemies, he went to India, in disguise, to the court of a powerful prince of that country, who took particular notice of him, on account of his valour, and personal merit. The Indian prince loaded him with cares and honours; and gave him his daughter, with an immense fortune; when he was recognized by some nobleman, who had carried the usual tribute to Persia. Being thus discovered, he returned to his own country, after an absence of two years. The Hindus assert, that he refused to take his wife along with him; and that, in consequence, she killed herself. They shew, to this day, the place where he lived, about one day's march to the north of Baroach, with the ruins of his palace. In old records, this place is called Gadhendra-puri, or the town of the lord of Ases. The present name is Gosherā, or Ghojārā for Goshā-rājā or Goshā-rāja: for, says my Pandit, who is a native of that country, the inhabitants, being ashamed of its true name, have softened it into Gosherā, which has no meaning. Bahram, the As, had 12,000 dancing women sent to him, from India; and it is supposed, that those of that profession, in the same country, to this day, are descended from them. This Bahram had been brought up among Christians, in Arabia; and king Nooman, who had been intrusted with his education, died a Christian. But Bahram abhorred the Christian name, and cruelly persecuted all those of that profession; and this was the cause of a bloody war with the Roman Emperors, in which the armies of Bahram were repeatedly defeated; and once forced to plunge into the Euphrates; when above 100,000
men were drowned. His son inherited all his rancour; but, being
beloved by his troops, the Emperors of Constantineople were obliged to
submit, and to pay a yearly contribution.

This Bahram, or Vicramaditya, the Hindus claim as their
own countryman; for, in the appendix to the Agni-purāṇa, he is de-
clared to be Cauriṇaṣṭya, or of the family of Śrī-Carna, which is possible
on the maternal side.

This is the Vicramaditya, whose younger brother was called
Bhartrihari; famous for his piety and learning; and who succeeded
his father, though the youngest: but being disgusted with the world,
on account of the infidelity of his favourite wife, he abdicated the
throne of Mālava, and retired to Benares; where he ended his days in
devout contemplation: though many are of opinion that he is still
alive. When he left the throne, his brother was gone to distant coun-
tries; and the whole kingdom being thrown into confusion, was soon
overrun with demons, the chief of whom had taken possession of the
throne; and it was with the utmost difficulty, that Vicrama drove
him away, by gentle means, and even conciliated his favour, and there-
by obtained a boon from him, to sit upon the throne for 100 years.

It is the general opinion, that Vicramaditya put his brother
Śucāditya, or Bhartrihari, to a most slow, and cruel death, by
severing his head, with a knife, both small and bad. His putting him
to death is mentioned by Holwell, and Mr. Wilkins (i.)

Bhartrihari, according to the Hindus in general, withdrew to
Chunār near Benares, where he remained some time; when his brother

(1) Asiatic Researches Vol. 111. p. 129.
gave him a purganah, or small district, called to this day Bhartari, and
Bhittri, after him; and which is to the eastward of the mouth of the river
Gomti. There are the remains of a pretty large fort, with the ruins of
his palace. Near it is a stone pillar, with an inscription, containing only
a few couplets from the Mahâ-Bhârata: it is however remarkable, on
account of the curious connexions of the letters.

Being obliged to go often to Benares, he raised an artificial hill,
at some distance from the northern banks of the little riverBurnâ, to
to the north of the city, exactly in the shape of the hill of Chunâr,
on which he resided. It is a work of great magnitude; and near it is
a small village, called, from that circumstance, Pâhâr-pur, or Hill-burgh.

In the lists of the kings of Gwalior, both M. S. S. and printed, it is
declared, that Sûrya-sena, or Sûrya-pâla, called also Sôma-pâla,
built the fort of Gwalior, in the year 332 of Vicrâmadityya, by whom
we must understand the son of Bahram-Gôr; and thus, the building
of this famous citadel took place in the year 773; and probably, on
account of the astonishing progress of the Muslim invaders, on the
banks of the Indus. The kings of that country resided at a place called
Cánti or Cantipura (now Cotwall, nine cos to the north of Gwalior,
according to Lieut. Wilson's information). The origin of this
little kingdom is mentioned, in the prophetick chapters of the Vâyu,
Brahmanda and Vishnu-purânas: but the latter is more explicit, on this
subject, than the others. After the death of Pulôma, in 648, there
appeared, in Anu-Gangam, or the Gangetic Provinces, a king, called
Viśvasphatica, or Viśva-śphurji; who drove away the Brâhmens and
Gheltri, and raised to that dignity persons of the lowest classes. After

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him came the Nāgas or Nācas, who divided among themselves Anu-Gāṅgam, and the countries to the westward: some resided at Padmāvatī (or Patna); others at Prayāga, (or Allahabad.) There was a branch of them, who settled at Cāntī (now Corwall near Gwalior,) and another at Mathurā: and there were nine families of them. There is still a tribe of the Nāgas, or Nācas, on the banks of the Jumna, about Calpi. They seem to form a singular tribe, but I am otherwise unacquainted with them.

Thus Sūrya-pāla, or Soma-pāla, built this fortress, in the year 773, and of Vicrama the son of Bahram-Gūr 332; which computation is further confirmed by another epoch. Aja-pāla or Gebal, is said, by Ferishta, to have been afflicted, in his wars against Mahmud, by Tandepāla king of Gwalior. There is one Dhand'hupāla, in the Persian list of its kings, and the sixteenth from its foundation. He was the friend and ally of Gepal, and their combined forces were defeated, by Mahmood, about the year 1017.

The dynasty of Sūryapāla consisted of eighty five princes, according to the prediction of Gopāchala the hermit, (called in the Persian list Guālipā;) and ended in the person of Tēja-gārṇa, 103 years before Gwalior was taken, by Shamseddin, or Firoze the 2d; (who ascended the imperial throne in 1289;) having lasted above 410 years, which is certainly too little for 85 reigns: but their

not uncommon with Hindu chronologers. Lieut. Wilson informs me, that a Brāhmen, in the service of Cāndu-jee, has sometime since written a history of Gwalior, in Sanscrit, in which he places Sūrya-
pāla, or Soma-pāla, in the Dwāpāra age: and the author declares, that his account is conformable to ancient inscriptions, still existing on the
rocks of Guwar; and that the chief circumstances in his history are entirely taken from them. If so, neither the inscriptions, nor the work itself deserve much credit. Bahram, with the epithet of Gur, in Sanscrit Gardabha, or the Ars, is the founder of the Gardabhina dynasty, mentioned in the prophetic chapters of the Purānas. The Hindus say, that when Gardabha withdrew from India, he left his wife and her maid behind, and that both were with child by him; but Persian writers assert, that he took his wife with him, to Persia, with her immense fortune. In Rachnath's list, we find, that the son of Gardhabala, or Gardabha, was Vicramaditya; who had two sons, Talaca-Chandra, who reigned only two years, and another, called Vicramaditya also, who succeeded him. According to Persian history, Gardabha had a son, called Yesdejird, who succeeded him. This prince had two sons, Firoze, the eldest, and Hormuz, the youngest, surnamed the wife; whom, on account of his wisdom, he appointed for his successor; and, to Firoze, he gave the Government of Sigismon and Meicran. The account of these two brothers has much affinity with what they relate, in India, of Vicramaditya and Bhartrihari, some say that Vicramaditya put him to death; others, that he banished him to distant countries. Be this as it may, they show the ruins of his place of abode, in Gujjarat, at Ujjajinī, and near Benares. The dynasty of the Gardabhinās is probably that of the descendants, and successors, of Bahram-Gur in Persia. The princes in the N. W. parts of India were vassals of the Persian kings, at a very early period; and the father-in-law of Bahram-Gur used to send a yearly tribute to them. According to the Hindus, he was not Emperor of India, but only a powerful king in the western parts of that country, and his capital city
was Cambát (or Cambay.) It is not improbable that Firoze spared the life of his brother, and banished him to distant countries; and spread a report of his death, to prevent any further commotion in his favour. Shirovyeh, the son of Khosru Purviz, caused his seventeen brothers to be secretly conveyed to India; and it was firmly believed, in the west, that he had put them all to death: yet there is hardly any doubt, that the kings of Oudhpur, and the Marhattas, are descended from them and their followers, as is well appear in the appendix. In many copies of Rachu-nât'î's list, instead of Gadhâ-pâla, we read Cshêma-pâla, or some other name. Next to him, a prince is introduced, called Sadat-pâla; probably for Sadâsva-pâla, the name of the father in law of Gadhâ-pâla, of Bahram-Gur.

As the famous Emperor Bhója is not noticed by foreign writers; the period, in which he lived, is involved in much obscurity. In the Ayin-Acherî, (1) Bhója is said to have ascended the throne, in the year 541 of Vicramâditya's Era; which is impossible; for it would place Bhója's accession to the throne in the year 982; and therefore, there would be no room, either for his reign, which was a long one, nor for those of his two successors, the last of whom died in 1009. In the Satrujaya-mahatmya, we read 477 instead of 541, and this will place Bhója's accession, in the year 918 of Christ. But the author of the above treatise uses another mode of calculation, which will give a difference of four years. In the year 466 of the Era, says he, was Vicramâditya, who reigned 108 years; and 477 years after, appeared Śalâditya, in Āsārâpura. The Era is that of Śalivahana, and as the Jainas reckon from the death of Vicramâditya, the whole will

stand thus $468 + 79 - 108 + 472 = 914$, for the year of Christ, in which Bhōja ascended the throne. Major Mackenzie, in his extracts communicated to the Society, says, that in the Dekhin it is recorded of Bhōja, that he reigned fifty years five months and three days; and that the famous Cāli-dāsa lived at his court. Accordingly, Bhōja died in the year 955, or 969, if we place his accession in the year 918. The author of the Satrjūya-mahātmya places the accession of Vicramaditya in the year of Christ 437, instead of 441; and when we read, in the Ayin-Acheri, that Bhōja ascended the throne in the year of Vicramaditya 541, this might possibly be a mistake for that of his death; and such mistakes are unfortunately but too frequent with Hindu writers; and his death would, in this case, fall in the year 977; or in 982, if we reckon from the year 441. This account is the most probable, as it leaves room for the reign of his adopted son Jayananda, who died without issue, when Chaitra-pāla, or Jye-pāla of the Towira tribe, was raised to the throne. After fighting several unsuccessful battles with Sultan Mahmood, he put an end to his own life, in the year 1032, and was succeeded by his son Mahendra pāla. This Chaitra-pāla or Chandra-pāla, and in the spoken dialects Chaitra-pāla, Jye-pāla and Gepul, by Musulman writers, is called Chaitra-Chandra in the Bhavishya, which cannot be explained otherwise, than by supposing, that the author meant, that he was called indifferently either Chaitra-pāla or Chandra-pāla. He was a most powerful prince, and his authority was acknowledged all over India; and he is mentioned in the Ayin-Acheri (2) under the name

(2) Vol. 2. p. 55.
of Chandra-pāla; but he is placed erroneously before Rāja-Bhoja. This is the Vicramaditya, who is made to wage war against Mahābhat and the Mahābhātādīcas, Muḥammed and the Muḥammedans. No Hindu prince could have waged war against Muḥammed; but the whole is an allusion to the subsequent wars with his followers: and in the same manner we must probably consider the wars of the other Vicramas with Śālivāhana. The Hindus have confounded Sultan Mahmood with Muḥammed, whom they call as their own countryman, as well as Śālivāhana, while neither of them ever was in India.

The propensity of the Hindus, to appropriate every thing to themselves, is well known. We have noticed before their claims to Bahram-Gūr, and his descendants; and in the same manner, they insist, that Aẓbār was a Hindu in a former generation. The proximity of the time, in which this famous Emperor lived, has forced them, however, to account for this in the following manner. There was a holy Brāhmen, who wished very much to become Emperor of India; and the only practicable way for him was to die first, and be born again. For this purpose he made a desperate Tapaṣya, wishing to remember then every thing he knew in his present generation. This could not be fully granted; but he was indulged with writing, upon a brass plate, a few things, which he wished more particularly to remember; then he was directed to bury the plate, and promised, that he would remember the place in the next generation. Mucunda, for such was his name, went to Allahabad, buried the plate, and then burned himself. Nine months after, he was born, in the character of Aẓbār, who, as soon as he ascended the throne, went to Allahabad, and easily found the spot, where the brass plate was
Thus the Hindus claim Muhammad and Acbar, as their own; exactly like the Persians of old, who insisted that Alexander was the son of one of their kings: so that, after all, they were forced to submit to their countrymen only. But let us return to Mahabhat, or Muhammad.

The Hindus say, that the son of a certain king of India, being disquieted with the want of a pilgrim, and went to Mocsheswarasthana (or Mecca). In his way thither, and in Arabia, he stopped at the house of a Brahmen, who received him kindly, and ordered his daughter to wait on him, as usual. Whilst asleep, the cloth, with which his loins were covered, was accidentally defiled. When he awoke, he took it off, and concealed it in a corner of the house, in some hole, and out of the sight of the damsel, as he thought. Being from home, to perform his ablutions, in consequence of this nocturnal defilement, the damsel came at the usual hour; and her course suddenly making their appearance, she was much distressed, and looking everywhere for some cloth, she spied the bundle—in short, she conceived. He departed for Mecca; and some months after, the parents of the damsel, and herself, were thrown into the greatest confusion, as may be imagined.

The holy man was considered as the author of their disgrace, though the damsel exculpated him: yet she could not account for her present situation. She was, like Hagar, turned out of the house, into the wilderness, with her son; where they were miraculously preserved, both being innocent. Some years after, the holy man returned, unconscious of his having been the cause of so much uneasiness, to the family of the hospitable Brahmen.
After much abuse, the matter was explained; but the son of the damsel could not be admitted to share with his relatives, or even to remain in their communion. He was, however, honourably dismissed, with his mother, after they had given him a suitable education, and rich presents; and they advised him to shift for himself, and to set up a new religion, as he could not be considered as a member of the old one, on account of his strange birth, or rather conception. When advanced in years, he wished to see his paternal relations, and India; and to persuade them to conform to his new doctrine; but he died in his way thither, at Medina, near Candahár. This Medina is Ghazni, called emphatically the second Mediná, from the great number of holy men entombed there: and it is obvious, that the Hindus have confounded Muhammad with Sultan-Mahmood, whose sumptuous Mahalum is close to that city. Thus we see, that the account they give of Muhammad is a mere rhapsody, retaining some of the principal features of the history of Ishmael, Hagar, Muhammad himself, and Sultan Mahmood.

The Samvat, or Era, of Mahábháta, was early introduced into India, and the Hindus were obliged to use it, as they do now in all their civil transactions; and thus Muhammad became at least a Sambatika or Santika. According to the rules laid down by the learned in India, Muhammad is certainly a Saca and Saceswara, and is entitled to the epithet of Vicrama. He is a Saca, or mighty chief; and, like other Sacas, he killed his millions; he is Saceswara, or the ruler of a sacred period, still in use in India. For these reasons, the Pandits, who alluded Abul-Fazl, did not scruple to befall the title of Vicramaditya upon him; and even to consider him as the real worthy of that name; and in order to make the Era, or at least the time of Vicramadityas' appearance,
coincide with the Era of Muhammed, they have most shamefully distorted the chronology of the appendix to the Agni-purâna.

Agni-purâna,

Sâlivâhana

Naravâhana

Vâmasâlî or Putra-râjas, that is to say the royal offspring,

100

84

184

55

87

31

80

437

Avin Acberi,

Sâlivâhana,

Naravâhana,

Putra-râjas,

Aditya

Birmâhraj,

At-Birmâh,

Sudhroshâneh, for

Sadâsava-sena,

Heymert,

Gundrup,

200

30

90

80

100

35

621 7 3

In the M. S. S. copy of the Ayin Acberi used by Tieffenbhaler, the days and months were omitted. In several we find seven months, and three days once only; and the repetition in other M. S. S. is owing probably to the carelessness of transcribers. Here one year only is allotted to Sâlivâhana, and 100 to Naravâhana, who is the same with Sâlivâhana, to whom one only is allowed, in order, probably, to keep up his rank and place in the list. It is also to be observed, that where we put 0 at the beginning of a chronological list, the Hindus put 1, as we used to do formerly; and that year should be rejected in calculations; but this precaution is often neglected, even in Europe.

The first year of Sâlivâhana, but not of his Era, was the 3101 of the Cali-yuga, answering to the first of the Christian Era, according to the
to the Cumárścā-śānta; and consequently, this Vīcramādītya's accession, to the throne, happened 621 years after the birth of Christ, according to the M. S. S. perused by Tieffenbaler; and 621 years 7 months and 3 days, according to others: and the Ḥeṣra began, when 621 years 6 months and 15 days, of the Christian Era, were elapsed: the difference is surely trifling. That the Pandits, who assailed him, pointed to Muḥammed, under the name of Vīcramādītya, is confirmed also from two dates in the Ayin Acberi, in which the years, said to belong to Vīcramādītya's Era, are really to be reckoned from the beginning of the Ḥejrá. Probably it was meant as a compliment to the benevolent Acbar, whose tolerant spirit could not fail to endear him to the Hindus. Even in the time of Aurēng-Zēbe, the most intolerant of all princes, when Raghū-nātha wrote the Vansavālī, at his command, he introduced Muḥammed by name, with the title of Śrīmān-Mahārajā. In this attempt, the Pandits, who assailed Abul-Fazīl, most shamefully disfigured the chronology of the supplement to the Agni-purāṇa. Of Śālivāhana and Narāvāhana, they made two distinct persons; as well as of Bahram, with the title of Gūr, in Persian, and Hāimār, or the wild Afs, in Arabic. Thus they introduced Hāimār or Haymert, and Gūr or Ganda-rūp: to the former they allotted 100, and to the latter 35 years; and they had the assurance to tell Abul-Fazīl, that it was declared, in their sacred books, that Hāimār having been killed in battle, his soul passed into the body of Ganda-rūp (1). They were also forced to lengthen the reigns of the intermediate princes: thus one abyss calls to another, and a single lie requires often fifty to support it.

The accession of Vicramaditya, the son of Bahram-Gur, to the throne, is placed, in the supplement to the Agni-purāṇa, A. D. 437; and the same date is given, in the Satrujaya-mahāmya, as we have seen before (1). This event is placed, however, in the year 441, or 442, by chroniclers in the west; and in the appendix to the Agni-purāṇa, the accession of Aditya is placed in the year of Christ 185; but, in the Cumarāca-chanda, it is declared to have taken place in the year 191: the difference is six years, which added to 437, or rather to 436, will place the same event in the year 442.

The name of the Emperors, called Muhammad, or Mahmood, is generally written, and pronounced, by Hindus, Mahabhat, which implies a great warrior; hence he is called also Mahā-Bahu, Vīrabahu, and Mahā-Vīrabahu. It is written also Mahā-bhattāraca, Mahābhāttārica, and Moha-bhattār. In the Vansavāli, he is styled Srimān-maha-rāja, the prosperous (or on whom blessing and happiness) the great commander. In the list of kings, the titles are generally placed after the proper name; thus Bhūja is dignified with the title of Sṛ-Carna-rāja-Vicrama, in the appendix to the Agni-purāṇa. In the Vansavāli, as new modelled by the Juinas, the epithet of Parasū is prefixed to his name, and not improperly; because, like another Parasū, he and his successors destroyed the kings of the Earth. Parasū signifies a sword, or scimitar; and here perhaps, alludes to the epithets of Seifullah, (the sword of God) and of Zulfecar, so famous among his followers.

(1) See before p. 157.
It is said, in the *Vṛhat-cālīha*, that he was from *Ananga-dēsa*, or the country of *Ananga*, another name for *Cāmadēva*, and supposed by *Pandit* to be to the westward of *India*. In the *Vansāvālī*, instead of *Ananga*, it is written *Bengal* or *Bengal*. The *Ḥamīr*, or *Homar*, introduced as his successor, in this list, is probably meant for *Omar*, who as early as the year 636, began to form regular plans for the invasion of *India*; and actually sent a large detachment, by sea, to invade the *Delta* of the *Indus*; or rather, this Ḥamīr is the famous Ḥamīr, general of Moavye (1), who waged a long and bloody war, with the Hindus, in the countries bordering upon the *Delta*. Moavye began his reign in the year 661, and died in 679; and the wars of Ḥamīr, with the Hindus, took place about the latter end of his reign. In the *Vansāvālī*, he is called Ḥamīr-*sinhai*, and Ḥamīr-*sena*; but in many copies, the first syllable of his name is dropped, and we read *Mīr-sena*, *Dirsenā*, and even *Disena*; and, in some copies, he is said to have been a native of *Ananga*.

The title *Śrīmān-maha-raja* was probably bestowed upon Māhā-bhātī, in compliment to *Aureng-Zebē*, by whose order the *Vansāvālī* was written. The Hindus, in general, never speak ill of Muhammad; and they think that he was a good man; but they by no means entertain the same idea of his disciples.

During the time of Muhammad, neither he, nor his followers, ever troubled themselves about *India*; but soon after his death, and in the year 636, Omar began to devise means, for the invasion of that country; and the first step he took, was to build *Bajrah*, or *Busra*.

(1) Aṣīn Aṣberī, Subah Tarah.
He then sent Magaireh-Abul-Aas, according to the Ayin-Achberi (1), who, setting off from Baharein by sea, invaded the western parts of the Delta of the Indus: but meeting with unexpected resistance, he was defeated, and lost his life; and as Omar died in 641, this expedition must have taken place between these two years, and probably in 639 or 640. Othman, his successor, attempted an invasion by land; but having sent people to survey the roads, he was deterred by their report. Ali, after him, sent a general, who effected some trifling conquests, on the borders of Sind. Moaviye sent twice his general Amir, or Hamir; but, after long and bloody conflicts, he was forced to desist. Under the Caliph Walid, the conquest of Sind was at last effected, by Muhammed-Casim, A. H. 99, or of Christ 717. (2)

The rapid conquests of Omar, and his successors, through Iran and Turan, and their constant and unrelenting attempts upon India, though not always successful, particularly at the beginning, could not but alarm very much the Princes of that country; who thus soon became acquainted with the Mahabharatieas, Muhammed their chief, and the intolerant spirit of their new religion.

Let us now pass to the second part, from the first year of Vicramaditya, to the death of Prithwi-Raja, and of Jaya-Chandra. In this part, the appendix to the Agni, and also to the Bhavishya-puranas, agree pretty well with the Ayin-Achberi; in regard to the number of kings, and the order of succession. There is, however, in the Ayin-Achberi, a material difference; for three kings, who are placed after Bhō-

(2) ibid.
JA in the two first lists, are transposed in the Ayin-Acheri, and put before Bhója, and in an inverted order of succession. These are Ráma-
chandra, (called there erroneously Kurrumcund) Chandra-pála, and Mehen'dra-pála. The reason of this transposition is, that the Pandits, who assisted Abul-fázil, having placed the accession of Bhó-
ja 110 years before the death of Jaya-chandra, in 1194, that is to say, in the year of Christ 1084, there was no longer room for these three kings; and they concluded, that they must have reigned before Bhója, particularly as they found there a king, called also Mahéndra-
pála, the grand father of Bhója. Another mistake, in the Ayin-Acheri, is the introduction, not only of a collateral dynasty, but the metamor-
phosing the place of their residence into a king.

The succession of kings, from Vicrama the son of Gardabha, to Jaya-chandra, stands thus in the appendix to the Agni-purána.

Vicramáditya, 100 years
Chandra-séna, 50
Surya-séna, 85
Chandra-séna is omitted in the Ayin-Acheri,
Śakti-sinha, 85

In his time the Era of Śáliváhana prevailed over that of Vicra-
máditya.
Chadga-séna, 85
he resided at Ujjayini,

At that time Ataca, called Vataca in the Puránas, reigned at Dhára-nagara, for the space of 150 years, or rather his dynasty. Sucha-
séna or Sumuch-séna, and after him Chadga-séna reigned at Chit-
The first reigned 88, and the second 86 years; and these appear to be collateral dynasties.

Then came Mahendra-pala, called Vijaya-nanda in the Ayin-Acheri, and these two epithets imply a great conqueror. It is said, that he reigned 100 years, at Yogini-pura, or Delli; but it is a mistake, for the Mahendra-pala, who reigned in that city, lived after Bhôja. After his death, Munja was appointed regent, during the minority of his son Bhôja. He resided at a place called Sonitpura, and reigned 86 years. After him, Bhôja reigned, in the Dekhin, 91 years. He was succeeded by Jaya-nanda, sometimes, but erroneously, called Jaya-chandra, and he reigned 89 years. Thus, the compiler of this list seemingly places the death of Jaya-nanda 1095 years after the accession of Vicramaditya, the son of Garddabha, to the throne; or in the year of Christ 1480; thus confounding together this Vicramaditya, with the one after whom the Era is supposed to be denominated. In this manner, he has carried back the first year of Salivahana, 411 years before Christ; and the expiration of Chânacya and Chandragupta, 753 before the same Era. His idea, however, was, that Jaya-nanda died in the year 1095 of Vicramaditya's Era, answering to the year of Christ 1039; and as Bhôja reigned only 50 years, instead of 91, a further correction will place the death of Jaya-nanda in the year of Christ 998, which is pretty near the truth. These inconsistencies and contradictions, so frequent among Hindu chronologists, are disgusting in the last degree, and must greatly retard the progress of historical research.

He was succeeded by Chaitra-pala, the son Ramachandra, a powerful zemindar, in the country of Gauda, in Malava, and of the Tomara
tribe. In the Aycin-Acberi (1) we read, that, when Ja'y & the son of Bhōja died, there was not found any one of the Pomāra or Powar tribe, worthy to wear the crown; on which account, Chytepāl, an eminent zemindar, was chosen king; and he founded the Tomāra dynasty.

In these three lifts, we find two dynasties introduced, the Tomāra and the Chauhān: but these were collateral, at least for some time; as obvious from the context of the appendix to the Agni-purāṇa, in which it is declared, that Jīdahāna, called Prīthwi-raja in the Aycin-Acberi, (2) was defeated, and killed in battle, in the country of Sambhala, by the Chauhānī, who thus became kings of Yogini-pura, or Dilli: This happened, says Abul-Fazīl, in the year of Vicramāditya 848 (it should be 488); and as the first year of Vicramāditya is made, in that section, to correspond with the first of the Hejra, the death of Jīdahāna happened in the year of Christ 1110. This is further confirmed, by another passage from the same author (3), in which he says, that the dynasty of Bala-deo, or Bildeo, the Chauhānī, lasted 83 years, and seven months, that is to say, from the death of Prīthwi-raja who was slain by Bildeo, to the death of Pitthaurā, in the year 1192, or of the Hejra 588: and from the beginning of the Hejra, to the year 1110 of Christ, there had clapsed exactly 488 Hindu or Lunisolar years. (4)

Accordingly, these two dynasties will stand thus:

(1) Vol. 2d. p. 56.
(2) Vol. 2d. p. 118.
(3) Vol. 2d. p. 115.
(4) Vol. 2d. p. 118.
The Tomara Family.

Rama-Chandra, Zeminādr

of Gauda, did not reign.

Chaitra-pála, his son, Emperor

of India, had two sons;

Mahendra-pála, Raya-sena, called also Ananga-pála, and Ėcápála, builds Dilli, A.D. 1050.

Rāṇa Bādi.

Jidhāhā, killed in battle by Bala-deva A.D. 1110.

had two sons.

Vigahāna, Sanca-pála, Cirtti-pála, Anangapála, withdrawn to Gauda his native country.

Chauhāna Family.

Baliṭādi

Visālācchha

Soma-deva

Bala-deva

Naga-deva

Cirtti-pála

Prithwi-rajā.

died A.D. 1192.

In the account of Subah Dilli, by Abul-Fażil (1), the list of the Chauhān princes, who reigned after the year 1109, is erroneous; but in the account of Subah Malwa, (2) it agrees with the appendix to the Agni-purāṇa.

Muslim writers inform us, that, after the death of Gebal, or Chait-pála, the Balhara kings, in Gujarāt, became Lords paramount, or Emperors of India: and, in the Agni-purāṇa, we find that Chaitra-pála had two sons, Mahā-chandra-pála, or Mahendra-pála, who proved at last a weak and foolish prince, and his brother Raya-sena carried away his wife, and built Dilli. He was called Ananga-pála.

(1) Vol. 2d p. 115.
(2) Vol. 2d p. 62.

S. S.
or befriended by love, and Ratípálá, or fostered by Rati, the Goddess of love, and the consort of Cama-deva; perhaps in allusion to the above transaction: hence the founder of Dillí is called, by some, Ananga-pálá, and by others Raya-sena. He is noticed by Tieffenbacher, who calls him Rasena, and says that he built Dillí. (1) Abul-Fazil, in his account of Subah Dillí, places this event in the year of Vicramáditya 429; and in a former section, he makes the first year of that Era to correspond with the first of the Hejra. (2) It happened then in the year of Christ 1050; and this is confirmed, by another passage from the same author, (3) in which he places the building of Dillí, or the beginning of the Tomára dynasty, in that city, 142 years before the death of Pithaurá, in 1192; and this gives the same result.

After the defeat and death of Prithwi-pálá, or Jídáhana, in the year 1110, his son Vigháhána returned to Gauḍá, his native country, according to the Agni-puráṇa; but we find still three of his descendants, reigning at Dillí, Sanca-pálá, Cirtti-pálá and Ananga-pálá. In the Agni-puráṇa it is said, that Ray-sena conquered the Antar-vedi, or country between the Jumna and the Gangá; and also the country about Dillí, and settled there. The Chauhánas possessed, at the same time, Sambhala-desá, or the country of Sambhala, to the north of Canouge.

Ananga-pálá, the last king of Dillí of the Tomára dynasty, being without male issue, adopted Prithwi-rája, or Pithaurá, the last

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(1) Beschreibung von Hindustan, p. 111.
(2) Soobah Malwa vol. 2d. p. 51. See above p. 161, 162.
(3) Vol. 2. p. 115, 118.
of the Chauhān dynasty. This account is to be found, in the history of
the wars of Pirthi-raja, or Pithaurā, in the spoken dialects, part
of which is in my possession. There it is declared, that Ananga-
pāla had no male issue; and that he gave his only daughter, in
marriage, to the Chauhān king of Sambhala-desa; who had by her
a son, called Pithaurā. Ananga-pāla adopted him for his own
son, and appointed him his successor to the throne of Dilli; recom-
mending him, at the same time, to Jaya-chandra, Emperor of India,
and residing at Canoga. This happened, says the author of the above
treatise, in the 120th year of king Ananga-pāla; but more pro-
bably of his dynasty, which lasted 142 years; and accordingly, this
adoption took place in the year 1170 of the Christian Era.

It is acknowledged, that the Imperial throne belonged, of right,
to the Chohān family, and that they were deprived of it by Jaya-
chandra, of the Rattore tribe; but we are not told the ground of
their claims and pretensions. Be this as it may, such was the cause of
the last great war in India; for, when Jaya-chandra attempted to
perform a grand sacrifice, at which the presence of all the kings of
India was required, he was told, that he was not qualified to preside
at such a sacrifice, as the empire belonged to the Chohān family; and
of course, that it was the province of Pithaurā, who had abstained
himself, because he thought that the usurer would not allow him to
preside at the sacrifice. A love affair contributed also to exasperate both
parties; for, when Jaya-chandra led an army into Sinhala-dwipa, or
Ceylon, the king of that country submitted, and made him a present of
a most beautiful and accomplished damsel: but Jaya-chandra, being
advanced in years, adopted her for his own daughter; and she was soon
to have been married to a powerful king: but she, having heard of
Pithaurá's valour and achievements, fell in love with him, and refused her consent. Jaya-Chandra, enraged at her behaviour, caused her to be confined; and this was the cause of a most bloody war, in which the heroes of India fell, by mutual wounds. Pithaurá proved successful, set the young damsel at liberty, and carried her in triumph to Delli, and recovered also the Imperial throne. But he did not enjoy it long; for Sanebuddin made his appearance with an army, and Jaya-Chandra entered into a league with the invader, which soon brought ruin and destruction on both parties. Pithaurá fell, in the plains of Sthánusfar, or Thánusfar; and it is said, near a village, called Narayana-pura. The league, between Jaya-Chandra and Sanebuddin, did not last long; and, in an engagement, in the year 1194, between Chandwár and Etawah, Jaya-Chandra was completely routed, and obliged to fly; and, in attempting to cross the Ganges, in a small boat, he was drowned. (1).

After the famous expiation of Chánacya, which I mentioned before, in my essay on the Gangetic provinces, the author of the appendix to the Agni-puráṇa proceeds in the following manner: "Amburája, (or the king of the waters surrounding India), Mahá-pati (the great sovereign lord), Bhumi-pála, (the sofferer of the world), reigned a hundred years. After him came Ráma-Chandra, who reigned twelve years; and was succeeded by Bhárata, who reigned, in Ujjayini, 200 years."

Amburája is obviously Chandra-Gupta, whose reign here is made to begin, and not improperly, immediately after the expiation

of Chānacīya; when every thing was settled, and Chandragupta acknowledged Paramount of India.

Thus, from that famous expiation, to the end of Bharata's dynasty, there are 312 years, ending the year preceding the first of the Christian Era: but according to the Cumaricā-chanda, this expiation took place 310 years B.C. and the difference is trifling.

"Then," says the compiler of the appendix to the Agni-purāṇa, "at Praishtāna in the Deccan, through the mercy of Śiva, will appear Śālīvāhana, Māhā-bali, great and mighty; Dharma, the soul and spirit of righteousness and justice; Satyavāca, his word truth itself; Anasīyacī, free from spite and envy; Rajyam-uttamam-critāvān, whose empire will extend all over the world; Nara-vāhana the conveyer of souls (to places of eternal bliss): and he will reign 84 years."

Nara-vāhana signifies literally the conveyer of men, which is here the same thing: for the idiom of the Sanscrit-language will hardly admit of our saying conveyer of souls. Thus Christ is represented by the Manicheans, when they call him animarum vectōr in majore navi, the conveyer of souls in the larger boat.

"Then will come Nara-vāhana (in the Bhavishya purāṇa Nṛṣinha) who will reign 100 years." Nara-vāhana and Nṛṣinha are two well known epithets of Śālīvāhana, and they have been probably introduced here in order to enable the compiler to bring in 100 years to answer his purpose. What induces me to think so, is the passage immediately following. "Then will appear Nara-vāhana, and Vānsāvali." In the Ayin-Acheri (1) in the room of Vānsa-

(1) Subah Mālwa.
vall, we read in one copy Vansa-raja, and in another Putra-raja, and the former is retained by Tiefenthaler. Vansa-raja enumerates the royal offspring, Putra-raja, the royal children, and Vansa-vall, offspring or descendants, and also an account of them. The two former are generally pronounced Raja-putras, and Raja-vansas; and they are introduced here, because there were some families of Raja-puts, and Raja-vansis, who really pretend to be Sala-vansas, or the offspring of Hala or Sala-vaohana. To these, very properly, no years, are allotted, in my copy of the Agni-purana; but, in that used by Abul Fazil, 100 years are given to them; and none to Sala-vaohana, or if you will, one year only.

Thus in my copy we read,

Saliwana,

Narahana and the Vansa-halis

or Vansa-valis

84

100

184

But in the Ayin Acheri we have,

Saliwana

Nara-vaohana

Vansa-rajas or Putra-rajas.

100

100

200

Hence it appears, that originally Saliwana and Nara-vaohana, in this place, were considered but as one individual.

“Then will come Aditya, who will reign 55 years.” His reign began the 185th year of Saliwana, and of the Christian Era, accor-
Vicramaditya and Salivahana.

... but in the year 201, according to the Ayin-Acheri. This is the Vicrama-Aditya, who was contemporary with Sapor king of Persia, according to Ferishta, and reckoned among the several kings called Vicramaditya, in the Sinhásana dwatrinśhati. He is mentioned under the name of Šudraca, or Suraca in the Vṝhat-cathā, and under that of Vicramacēsaṛi in the Vetalapanchavinjati as we have seen before; (1) and according to the Cumāricā-chanda, began his reign in the year 191 of the Christian Era. “After him came Brahma-raja, who reigned 87 years in Vidharbhana-nagara. His successor was Ati-Brahma, who reigned at Ujjayini; he went with an army to countries toward the north, but was defeated and killed, after a reign of 31 years.”

“he was succeeded by Sadāswa,” called Vasudha in the Bhavisṭha, and Basdeo by Ferishta: “he reigned 84 years.”

In his time appeared Harsha-mēgha or Rashabha, called Gandhārupa in the Ayin-Acheri, and Bahram-Gör in the history of Persia.

His son was Vicramaditya, (in the Bhavisṭha two persons are mentioned, Bhātrihari and Śrī-Vicramaditya;) who began his reign accordingly in the year 441, reckoning from the first of Salivāhana, and answer of course to the same year (441) of the Christian Era: and in the year 541, Bahram-Gör ascended the throne in that very year. Śrī-Vicramaditya is supposed to have reigned 100 years, and of course he died in the year 541. It is here said that he went and subdued the Paitānas; that is to say, the inhabitants of Pāṭana in the Deccan, but not the Patans, as Bernoulli says. His successor was Chandra-

(1) Pag. 107. 146.
sena, who reigned 50 years; then came Surya-sena, who reigned 85, and died of course 135 years after Vicramaditya. Surya-sena seems to be a corruption for Suryansa, or Sri-suryansa, another name for Sri-Salivahana, as I shall shew in the next essay; and, like Salivahana's death, his is placed exactly in 135th year of Vicramaditya's Era, and the same number of years after his death, and in the year 676 of the Christian Era. But it does by no means follow, that there existed, at that time, a prince called either Salivahana, or Suryansa; but what we can reasonably conclude, is, that his Era was introduced at that time, and finally prevailed. "Then," says our author, (under the reign of his successor Sacti-sinha and in the room of Vicramarca, the Saca-bandhi,) "Salavahana will be chief of the Saca, or sacred period;" or, in other words, his Era will prevail over that of Vicramarca.

Vicramarcat param chaiva Saca carita bhavisyati.
'Salavahana namnaiva prasuddham punar asya tu.

Then, after Vicramarca, Salavahana will be the maker (ruler) of the Saca.

The famous Bhója was the son of Raja-sindu, and born unto him in his old age. When he died, his son being a minor, and only eight years old, his uncle Munja whose name is often written Punja, was therefore intrusted with the regency.

Munja wrote a geographical description, either of the world, or of India; which still exists, under the name of Munja-prati-déśa-vyavasthá or state of various countries. This voluminous work was afterwards.
corrected and improved, by Rāja-Bhōja; and this new edition is called Bhōja-puruṣārṇa-vyavāstha, and still exists in Gujjarāt.

When Bhōja ascended the throne, he found the famous Sin-hāśana, or lion-feat, which had been buried since the days of Vicramādītya, and thereby became intitled to that epithet, which was confirmed to him by Bali, when he visited the infernal regions. He is also called Śrī-Carna-raja-Vicrama, with the title of Aditya, which last is used often separately, and was also a title bestowed upon Śrī-Carna-Deva, whom he alluded to in the stanzas he sent to Muna-ja, (1) and which afterward, from that circumstance, was bestowed on him. When he died, the Goddess Sarasvatī, presiding over the sciences, wept bitterly, saying “where shall I find now a place to dwell in.” Bhōja ascended the throne, as we have seen before, in the year of Christ 913; and he resided at Dhārā-nagar, commonly called Dhār, in the province of Mālava. He had an only daughter, called Bānumati, whom he gave in marriage to Jaya-nandā, who conquered all India, and is reckoned as the last of the worthies dignified with the title of Vicramādītya, though some reckon Jaya-Chandra as the last; and indeed Jaya-nandā and Jaya-Chandra are often mistaken, the one for the other.

In the appendix to the Agni-purāṇa, the author concludes with declaring, that some hundred years ago, “the Gods and men in India, groaning under the tyranny of foreign tribes, went in a body, with Brahma at their head, to Śveta-dwipa, or the White Island in the west, to implore Vishnu’s protection, in their own name, and also in the behalf

(1) pag. 146
of men. Vishnu comforted them, as usual, and promised that he would appear, in the character of Calci-Avatara, when he would exterminate all their enemies. If so, the Hindus must wait no less than 429, 917 years for relief. Every Vicramaditya had a certain number of learned men at his court; the chief of whom is, in general, called Calidasa. According to the supposed appendix to the Bhavishyapurana, Vicramaditya the son of Gardabha had sixteen of them. Raja-Bhoja had nine, among whom Dhanwantari and Bararuchi were the most famous. These two learned men are called Dhunpahal and Beruje in the Ayan-Acheri. Another Vicramaditya had only five; and these learned men were dignified with the title of Ratna, or jewels, with which the courts of those Emperors were adorned. It is the general opinion, in the west, that the real Calidasa lived at the court of king Bhoja. This is confirmed, by the extracts communicated to the society, by Major Mackenzie, and also in the 8th. Vol. of the Asiatick Researches; (1) and Saliwahan is even supposed to have had a poet of that name at his Court,

The next lift, coming under examination, is from Gujjarat, and was given to me by a Pandit, a native of that country. It is entirely confined to the ancient rulers of that, and of the adjacent countries; and comes down no lower than the year 1509; and I was happy to find, that it was the same lift, which was used by the Pandits who assisted Ameer Fazil. This shews that it existed above two hundred years ago; and such as it is, that they had no better documents at that time. They borrowed from it only the last dynasty of the king of Gujjarat, which began A.D. 746.

(1) pag. 243.
This list, called also Vansávali, contains the names of the rulers of these countries, under the title, either of Bala-rájas, or Ráyas, or Mahá-Rájas, sprung from various tribes, or belonging to different dynasties. Many of them were only petty kings, and vassals to the more fortunate kings of another tribe, sitting then upon the Imperial throne. For these various tribes were always struggling for supreme power; and the Imperial dignity was constantly shifting, from the one to the other. Unfortunately, the compiler has not pointed out those who were Rájéndras; and there were, of course, many of these inferior sovereigns, in a collateral succession with the Emperors. The whole is compiled with the usual negligence and carelessness of the Hindus, and the author carries the beginning of this list as far back as the beginning of the Cati-yuga, and yet he mentions only thirty-six kings, or rather nine and twenty, in the list, from that period to the year of Christ 746. It is customary with Hindu Genealogists, to recede to the beginning of the Cati-yuga, whenever they fancy they can do it with propriety; otherwise, these families would be looked upon as a new race, and their princes as men of yesterday. But these nine and twenty reigns cannot carry the origin of the Bala-Ráyas beyond the beginning of the Christian Era. This idea, however, is by no means novel; for, amongst Muslim writers, some make Dáshálekh, the first Bala-Rája, an emporary with Hushronk, the second king of the Pishdákian dynasty in Persia; but, according to Masoudi, he must have lived a little after the beginning of the Christian Era.

The title of Bala-Rája, Bala-Ráyá, or Bala-Rau in the spoken dialects, signifies the great king, and is unknown in India, as belonging to the ancient sovereigns of Gujarát. According to our compiler, there were two sorts of these sovereigns, some were Rájá-Culas, or of royal
extraction, such as Vīcramadītya and Bhōja; others were descended from powerful Zemindars of different tribes, the names of which were the Cha-uhāna or Chauhāna, Chaudā and Goheld, to which we may add, from the context of the lift, the Solanci, and the Bāghelā tribes. According to Muslim writers, the first Bala-Rāyā was Dab-Selim, Dab-Slim, Di-Salem and Di-Šlam. These are strange appellations, and unknown in India, at least in that shape; and are hardly reducible to any standard, either Sanscrit or Hindī. My inquiries, concerning this ancient and famous king, have proved unsuccessful, unless his real name were Śaila-dēva, according to learned men from Gujarātī. This Śaila-dēva, Śaila-deo, Deb-Saila or De-Saila, was, according to tradition, a most holy man, of royal extraction; and I find him, or one of the same family, mentioned in the Ayin-Acheri, under the name of Śyel-deo (1). The word Dēva is pronounced, Deb in the eastern parts of India, Deo, Dē and Di in the western parts of India; and, in the present lift, such proper names as end in Dēva, or Deo, in the Ayin Acheri, have constantly Dē in the room of it. This word is seldom prefixed to proper names, yet there are several instances of it, as in Deb-Pāl-deb, a famous Emperor, mentioned in the Imperial grant found at Monghir, and in Dēva-Nausha, pronounced Di-Nissi in the Deccan. In our lift, the first Bala-Rāyā is called Di-Šaca, or Dēva-Šaca, which I suppose to be meant for Di-Šala, Di-Šaila or Šail Deo.

His descendants are known to Muslim writers under the appellation of Deb-Salimāt, according to D’Herbelot (2); and their fire is re-

(1) Ayin Acheri, Vol. 2d. subah Gujarātī, p. 89.
(2) See D’Herbelot, Dabshelim and Dabschalimāt.
presented as a most virtuous, and powerful prince, and king of the country of Soma-nātha, or Gujarāt. Pilpa was his prime Minister, and at his command, wrote the famous testament of Hushen, still existing in Persian. In the present list, Di-Saca or Déva-Saca is declared to have been a Yadu by birth, and of this tribe was Christian. Masoudi, who wrote about the year 947, and had been in India, throws some light, in his golden meadows, upon the time in which Déva-Saila lived.

"The dynasty of Phour, who was overcome by Alexander, lasted 140 years: then came that of Dabchelim, which lasted 120 years. That of Yalith was next, and lasted 80 years; some say 130." (Yalith is a strange name, and the nearest proper name to it, in Hindi, is Jalīya, or Yalīya, the name of a descendant, or successor, of Déva-Saila.) "The next dynasty was that of Couros," (a corruption, from either Carña, Curán or Curu:), "it lasted 120 years."

"Then the Indians divided, and formed several kingdoms: there was a king in the country of Sind; one at Canoge; another in Cashmir; and a fourth in the city of Mankir, called also the Great Houza; and the prince, who reigned there, had the title of Balhara." (1)

Now, it is acknowledged, that Déb-Sailim was the first Balhara Emperor, and the founder of that dynasty; and if so, that Emperor, and his dynasty, have been transposed by Masoudi, and erroneously placed before Couros, whoever he was. The other dynasties of Puru,

Yāliya and Cura, lasted, according to him, either 390 or 350 years. We cannot fix, with precision, the beginning of the dynasty of Puru; but at all events, the division of India into four Empires, happened in the first century after Christ; and according to Arrian, in his Periplus, the city of Minnagara or Mankir, was the metropolis of that part of the country. This city is placed, by Ptolemy, upon the banks of the Narmada, and is now called Manhawer. I have not yet been able to procure much information about this famous place, as very few people from that part of India ever come to Benares; but it is mentioned in the Ayin-Acheri, as a town of some note, in the district of Mandow, in the province of Malwa.

The dynasty of Deva-Sailim, in Manhawer, according to Massignon, lasted 120 years; that is to say, his descendants were, during that period, lords paramount of India, or at least of that part of it; and in the time of Ptolemy, the metropolis of that country was no longer Manhawer, but the seat of Empire had been transferred to Ujjain or Ozene; and he wrote in the beginning of the third Century. In his time, the Bala-Rayas were no longer lords paramount of India; but were either vassal, or independent kings, residing in some mountains among the mountains, at a place called by him Hippocura; and now Pay-gurma or Paywa-gurma. This was, says he, the place of abode of the Baler-curos; or rather the gur, curos, fort or abode, of the Baler kings. According to the appendix to the Agni-purana, the supposed dynasty of Salivahana lasted 184; but according to the Ayin-Acheri, 200 years. After it, came Aditya, of the Pumar tribe, called also Vicramaditya, Sudraca and Suraca; he was Vishvapati, that is lord paramount of the world, or rather of that part of India. According
to the Cúmaric-çhánda, he ascended the Imperial throne in the year of the Càli-yuga 3191, and of Christ 191. The appendix to the Agni-purāṇa places his accession in the year 185, and the Ayin-Achéri in the year 201, of our Era, and he reigned at Ujjayini. By Ptolemy, the king of that famous city, is called Tiastan; a strange name, and not reconcilable to the idiom, either of the Sanscrit, or Hindi languages. I strongly suspect however, that it is a corruption of Āditya-sthán, which may have been misunderstood, by travellers, who knew very little of the country languages. I suppose, that either these travellers, or Ptolemy, who conversed with many Hindus at Alexandria, asked what were the names of the metropolis of that country, and of its king. The answer was Ujjayini-Rāja-Aṣṭāyā sthán; ‘Ujjayini is the residence of king Āditya,’ which was erroneously rendered ‘Ojénē is the metropolis of king Tyasthán,’ or Tiasthan. In the same manner, he has disfigured the name of the Balher kings, saying that Hippocuros was the place of residence of king Baler-curos, which is obviously a corruption for Balher-ghur, the fort or place of abode of king Balher. Thus Strabo, in speaking of the country of Tej, in Cachha, calls it the kingdom of Tessariostus, thereby implying, that this was the name of the king; whilst Tessariostus is a corruption from Tejarāshtr, or Teja-rosht, which signifies the kingdom of Teja, an ancient king, who built the town of Teja, to the eastward of the Indus. As king Dēb-Saila, or De-Saila, is called, in our lists, Di-Saca, or Deva-Saca, which is also one of the titles of Salivahana; this would induce an opinion, that Dāb-Shelīm, or Di-Salim, is the same with Salivāhana. But such is the confusion and uncertainty of Hindu records, that one is really afraid of forming any opinion whatever.
As it is said, that it was by his order, that the famous treatise, called Jāvidan-khird, or eternal wisdom, called also the will or testament of Hushenk, had been written; he has been probably, from that circumstance, made contemporary with that ancient prince, who began his reign, 700 years after the accession of Cai-umursh, to the throne of Persia. Cai-umursh, according to Masoudi, was the son of Aram, the son of Shem, who died 502 years after the flood.

Masoudi says, that Manhawer was also called the great Houza, which, translated into Hindi, is Burra-Houza, or Burro-Gouza, and has such affinity with Bary-Gaza, or in Sanscrit Bhrigu-Cach'ha or Bhrigu-Cula, Bhrigu's shore or beach, that I strongly suspect, that Masoudi mislook Baroach for Manhawer; and that the blunder originated from a want of knowledge of the Hindi language: Manhawer is also called Mahouré, by other Musliman writers.

Our compiler says, that there were, in all, 36 kings, from Déva-sac, to the year 802 of Vicramaditya, answering to A. D. 746: but we can make out only 29 from the list; for the five Pramáras must be rejected, as they do not belong to India. They are called, in this list, Ch'hrui-vi-hahá, which is an expression partly Sanscrit and partly Hindi, as usual in these lists. It signifies the four great destroyers, and is an allusion to the famous Chir-yári of the Musulmans; and which, as I observed before, is made, with a little straining, to signify, in Sanscrit and Hindi, the four destroyers, instead of the four friends and associates. Several of their names imply the abhorrence, in which the Hindus hold them; for one is called Sávala, Cerberus or the infernal dog: another, Pramára or Parimara, is here meant for Mohammed, and signifies Yama or Pluto, the infernal and universal def-
Cūrāpa, he who was fostered by Māyā, or worldly illusion, otherwise the impostor, and perhaps intended for Moavye. Muhammed was originally introduced into this and other risus, because it was to the Hindus an ever memorable, though most unfortunate epoch, and from which their conquerors dated their sacred Era. It is not to be supposed, that he was thus introduced into these risus, from an idea that he ever was Emperor of India. This was well understood at first; but the case is very different now. Such is the opinion of those who reject the legendary tales about Sālivāhana and Vicramaditya; and this is by no means a new idea, for it is noticed in the Rāja-Tarangini, which is a work highly esteemed in India, and of some antiquity: for it was presented to the Emperor Acbar, in his first visit to Cashmir, by learned Pandits, who considered it as containing the most authentic documents of the history of their country.

About the time of Muhammed, the descendants of Deva-Sailim, who for a long time had lost their rank of Viśva-pati, lords of the world, Rājendra, Lords of kings, Rāja-rājās, kings of kings: began to lose also their influence and power, even as vassal kings, and they even finally lost their patrimonial territories and kingdom, which was usurped by the Solanci tribe. It seems that they retired into the province of Mālwa, in the vicinity of Ujjayini, where they lived in retirement, and entirely given up to devout contemplation, still very much esteemed and respected. There, at Ujjayini, we find one of them called SAILA-DEVA; who found, in the wilderness, young Vana-raja, and sent him to Radhanpur to be brought up; and this happened in the year 695; for Vana-raja, when fifty years of age, built the
town of Narwaleh A. D. 746. (1) In the year 1025, we find another of
them, living also in obscurity, and equally called Déva-Saila, or Dab-
shelem; and who was raised to the throne of his ancestors, by Sultan
Mahmud. The lift of the Bāla-Rayās, from Vana-Rāja to Rāja
Carṇā, was originally the same with that to be found in the Ayin-Acheri,
excepting some variations; for it is hardly possible to find two lifts in
India exactly alike. The number of kings, in both, is twenty-three;
and the aggregate sum of their reigns agree within two years. But the
arrangement is somewhat different, and the years of each respective
reign by no means correspond. Some kings are transposed, and the
names of a few quite disagree; and each lift supplies also deficiencies,
which occur in others. Owing to the uncertainty of Persian orthography,
several names are strangely disfigured, both in the English and Ger-
man translations; which last is by no means to be neglected, as there are
particulars in it, not to be found, either in the manuscript lift, or in the
English translation of the Ayin-Acheri. Thus, for instance, Rāja-Āditya
is called Reshadut in the English translation, and Ra-Schadat by
Tieffenthaler. Vana-Rāja is called Bansraje by the former, and
Bīrī Mumbai by the latter. The summary history of the Hindu princes of
Gujarat, in the Ayin-Acheri, contains many interesting particulars, not to
be found in our lift. Vana-Rāja, according to our lift, was of the
Chaudā tribe, still extant in Gujarāt. Abul-Fażil says, that his father
was called Samanta-Sinha; and the word Samanta implies, that he was
a petty king, probably in Gujarāt; but being of a base and turbulent
disposition, he was put to death, by order of Śrī-Bhuāda-Dēva, Emperor
of Canoge; and his family was plundered, as usual. His wife fled into the

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forests, or Vana, where she was delivered of a son, called, from that circumstance, Vana-raja. A holy man, called SAILA-DEVA, DEVA-SAILA or DEB-SAILIM, happening to pass by, on his return, from Ujjayini, to Radhana-pura, in the northern parts of Gujrat, took compassion on the woman, and gave the child in charge of one of his disciples, who carried him to Radhana-pura, where he was brought up. He afterwards associated with a band of robbers; and at last seized the royal treasure, which was going to Canoge. He then made himself independent, and built the city of Narwareh or Narwalah; and his friend Champa, a market man, says Abul-Fazil, and of the Bhi tribe, (a very low tribe, according to learned Pandits from Gujrat,) built the town of Champa-nagara or Champa-nere.

The next king, noticed by Abul-Fazil, is another Samant-Sinha; but this could not be his name, for Samant, as before observed, implies a petty king in Sancrit, and vassal princes are thus denominated. Thus we read, that Prithwi-raja had with him one hundred Samantas (1) or petty princes, commanding their own quota of troops. His name was probably Bhada-deva, the immediate predecessor of Mula-raja in our list, but the fourth only in the Ayin-Acheri. He gave his daughter to Sri-Dhundhaca of the Solanci tribe, after whom the town of Dhundhaca, in Gujrat, is denominated.

King Jamund, in the Ayin-Acheri, is omitted in our list, probably because it is a corruption from Samanta, and a title belonging to Mula-raja. In his time, Sultan Mahmud Ghaznevi conquered Gujrat; and, in the year 1025, replaced, upon the throne of his

ancestors, Deb-sailim, a descendant of the famous king of that name, who led a retired life, entirely given up to devout contemplation. He is called VALLABHA in our list, BEYSER and BIPLA in various copies of the Ayin-Acheri (1). Being a weak man, and blind, he reigned only six months, and was succeeded by the two sons of his brother, DURLABHA and BHIMÁ-RAJÁ.

Then appeared the famous VISALA-DEVA, with the title of CARA-Rajendra, that is to say, powerful and magnificent like Carña, and lord Paramount over many kings. He is said, in our list, to be a Chaitura, that is of the Chitaura tribe, still extant in Gujrát; (2) and after which the famous place of Chaitur or Chaitor is denominated. He was therefore a native of Mewár, now called the Sircar or province of Chaitor. This induces me to believe, that he is the same with VISALA-DEVA, mentioned in the inscription upon the pillar of Firoze, at the hunting seat of the Emperors near Dilli, and called Stambhacúmandira in the appendix to the Agni puráño; that is to say, the palace with the pillar. There he is said to be king of Sacambhari, which is probably the town of Cambher or Cambher-nore, in the province of Mewár. At all events, it was certainly in that country, as I shall shew hereafter. His father VELLADÉVA was originally a petty king of that country, and his son VISALA-DEVA caused that pillar to be erected, in the year 1164, and thus the times coincide. VISALA probably availed himself of the indolence and supineness of the princes of Chazni, and drove the Mech'has, or Musulmans, out of Aryavarta, or the land of virtue, thus making it, once more, what its signifies according to the inscription. Aryavarta


(2) See *Ajin-Acheri*, Vol. 2d p. 84. The true name is, I am told, Chittore.
includes all the north of India, from the snowy mountains, down
to the Vindhyean hills. He destroyed all the princes who refused to
submit, and kindly treated all those who did; and having visited all
the places of worship, through his extensive domains, he retired to
Sācambhari, to end his days in peace and rest, exhorting all the kings of
India, not to slumber, but to go on with his plans, and follow his mea-

sures. He is mentioned also in the Sāṅgad'hara-paddhati, written by
Sāṅgad'hara, grand son of Rāghu-deva, spiritual guide of Hām-
mīra, king of Mewār, or Sācambhari-desa, nearly in the same words
with the inscription, which was written in the year of Vīcramadītya
1220, answering either to 1164 or 1154 of Christ; for in that country
they reckoned the Era of Vīcramadītya, ten years earlier, than in the
eastern parts of India. He was succeeded by Jaya-sinha, called also
Siddha-rāja, Siddha-rajeśa, and in the dialect of Gujarāt, Siddha-
rajeśa-ga-de for Deva. It seems that Vīsala-deva left no male
issue; for no children of his are recorded in the above inscription, which
would not probably have been the case, had he left any. Who this
Jaya-sinха was, is unknown; but it seems, that Cunhwar-pala, a
near relation of his, was the lawful heir; at least Abul-Fazir says,
that the latter, from the dread of losing his life, lived in obscurity, during
Jaya-sinha's reign; after whose death, he ascended the throne, but
was poisoned by Ajā-pala, the son of Jaya-sinha.

The next is Luc-mula-Rāya, mentioned in the Ayin-Acheri, but
omitted in our list, unless he be the same with Balu-mula, or Baluca-
mula, called Birdmoor in the English, and Hardohn in the German
translation. They are probably the same individual; for what is asserted
of Luckmul in the Ayin-Acheri, is affirmed of his supposed successor in.
our lift; namely, that after his death, the nobles elected a prince of the Bhágíla tribe, called Birdmool in the Ayin-Acheri, (1) and Bhala-Bhíma-deva in our lift: The latter's name is split into two, and two princes made of them, in the Ayin-Acheri, under the names of Beil-deo and Bhim-deo. (2) Be this as it may, Lácmul-Ráya, whose real name was Lác'han-mula-ráya, or simply Lác'han-ráya, from the Sanscrit Lácshaña-ráya, is well known to Eastern writers, under the name of Lágham-ráya. (3) He was born of obscure parents, and raised himself by his own merit, and ultimately became emperor, or Bala-ráya. He governed with justice and equity: but after a long and prosperous reign, and when he was above eighty years of age, he was disturbed in his possessions, by Mahmúd-Bactyar Ghilji general of Sultán-Mahmúd, who began his reign in the year 1205, and died in 1209. In the years 1207 and 1208, that general was in Bengal; and, therefore, he must have invaded Gujrát in the year 1209; but the death of the Emperor probably prevented his completing the conquest of that country. For, though the authors cited by D'Hérbelot say, that he effected the reduction of the country, yet Abul-Fázil says, that it was a mere incursion, (4)

The reigns of Siddha-rájéśa, of his cousin Cunhwára-pála, and of Aja-pála, son of the former, are obviously too long; for they amount to 73 years in the Ayin-Acheri, and to 113 in my lift, which

(1) Vol. 2. p. 91, 95.
(3) See D'Hérbelot v. Lágham-ráya.
is hardly possible; and it is not unlikely, that Lachan-raya was the prince, minister of Visala-deva, mentioned in the inscription; for he was above 80 years old, at the time of the invasion of Gjrayi, by Mahmud Bactyar. There is such a disagreement, in the lengths of the respective reigns of each king, in the various copies, that no certain inference can be drawn from them; and I noticed before a few transpositions: we must therefore remain satisfied with the grand outlines. Visala-deva was not a native of Gjrayi; and, though a Bala-raya, or lord Paramount, he was not king of that country, but of the Mewar, or Sacambhari; and of course his supremacy did not in the least interfere with the order of succession of the kings of Gjrayi. He belonged to no dynasty, and reigned, as well as his prime minister, collaterally with Siddha-raja, and his relatives; and after the extinction of that family, Lachan-raya was not only Bala raya, but became also king of Gjrayi, and resided in the metropolis of that country, both as an Emperor and as a king, during a space of twenty, or according to some, only eight years.

The last Bala raya was Carña the Gohila, who fled into the Deccan, when Sultan-Alla-uddin conquered Gjrayi. This happened, according to our list, in the year of Vicramaditya 1365, or A.D. 1309.

At that time, the famous Ratnasinha was king of the mountainous country of Mewar, and resided at Chaitor. He was descended from Khosru-Perviz, called also Nushirvan; and his amours with the beautiful Padmavati or Pedmaní, are the subject of a poem, both in Hindi and Persan. Her beauty was the innocent cause of a bloody war, between the Raja and Sultan-Alla-uddin, which ended in the
destruction of her lord, and his son-in-law Rawul-Arsi, a Chauhán. Hāmmīra, the son of the latter, fled from Chaitor, sheltered himself among the more mountainous parts of Mewár, and maintained his independence, as king of that country, and made Sācambhari the metropolis of his little kingdom. Mewár is divided into three parts, Chaitor (1), Cambher (or Cambher-nera for Cambher-nagara) and Mandāla (or Mandālica) built by king Mandālica of the Bhū tribe, and who lived about the year 1796. (2) Cambher is probably the same with Sacambhari, which was certainly situated in Mewár.

Sultan Muhammed K'huni, or the murderer, gave the government of Chaitor, and Mewár, to Māla-dēva, a Chauhán, and king of Jalór: but the latter was unable to reduce Hāmmīra, though he had defeated him, in a bloody engagement, near the sea shore, according to the appendix to the Agni-purāṇa. He then made peace with him, and gave him his daughter in marriage (3); but after his death, Hāmmīra murdered all his sons, and usurped the kingdom. This happened, according to the appendix to the Agni-purāṇa, in the year of Vicramaḍītya 1490, which is impossible; and we must read 1390, or A. D. 1334; for Sultan Muhammed began his reign in 1325, and died in 1351. In that appendix it is declared, that the base murderer was at last defeated and slain, by the joint forces of Secunder governor of Gâyá, Jalāla governor of Dilli, and a body of Yavanas (Turcomans or Mogols) commanded by Uluc'hāgā, perhaps for Uluch-khān, a title of honor sometimes

(2) Ditto ditto, p. 98.
blessed upon noblemen, by the Emperors of India. In the English translation of the Ayin-Acheri, Hammira is erroneously called Jemeer. The dynasty of the princes of Malwah was a collateral one with those of the Bala Rayas, though it be placed between Nripati and Vana-raja in our list. Such mistakes are not unfrequent among Hindu Chronologers: but as Vana-raja’s dynasty began in the year 746, and that of Malwah began in the year 191, and ended about the year 977, it is obvious that they were collateral, and I have arranged them accordingly. In the dynasty of the princes of Malava, Gardabha and his son Vicramaditya reappear; and, in the room of Surya-sena, or Sri-Suryansa, we have Saliwahana; which confirms my former conjecture, that they were but one and the same individual.

My Pandit observes, that many of the names of the Princes, who reigned before Vana-raja, are not proper names of individuals; but belong, either to tribes, or ancient families, from which they sprang, or to small districts, or towns, their patrimonial estates, and with which he is well acquainted; and many of these names are in the plural form. Thus, Jaliva, the name of a king, implies only that he was a Jaliva, or of the Jalim tribe, which is settled on the banks of the Mahi.

Musulman writers say, that the metropolis of those Baler kings was equally called Balhar, as well as the mountains among which it is situated. (1) It was in a country belonging to the Chauhan tribe, the chief of which generally resides at Alimohan (2): and it became the


(2) This is also confirmed by Abul-Fazil. See Ayin-Acheri, Vol. 2d. p. 87.
metropolis, when that tribe usurped the rank and power of Bala-Rāyās. It is declared in our lift, that the Chauhāns were, at some period, rulers of the whole country, as Bala-Rāyās; but our author has forgot to point out, in the lift, the princes of that famous and ancient tribe.

In the fifth century, Tamra-nagara, or Cambāt, was the metropolis of the Bala-rāyās; and perhaps of the Emperors of the west also, when these two dignities happened to be united in the same person; and it was the place of residence of the father-in-law of Gardabha, or Bahram-Gūr, called Sadāśva, Sadāśva-pāla, Vesuđha and Tāmra-sena, from his metropolis, Tamra-nagara, or Tamra-pura, signifying the Copper city, which is supposed, accordingly, to have been entirely built of that metal. It was near Cambāt; but tradition says that it was swallowed up by the sea; and Cambāt was a famous place of worship, called, in the Purāṇas, Stambhastha-Tirtha (1) from a Stambha or column, close to the sacred pool. Now, a column is called Camba in the spoken dialects; and from Cambaśa, is derived its present name of Cambāt. Stambhastha and Tāmrapura are called Aśa and Traperā, by the author of the Periplus; but Ptolemy, considering these two places as one only, for they were close to each other, calls it Aśacakrapra or Aśacakrapra; and instead of Tāmrapra, which signifies copper, he writes Campra or Capra. The reason, why he has carried this place so far inland, on the banks of the Mahi, is, that either he, or some other writer, misunderstood the natives, who have no word for a bay or gulf, and use generally the word river instead of it, particularly when there is one at the bottom of the gulf, as in the present case. (2) Osorio, a Portuoguese writer, says, that when Francis

(1) Cumáricá Chanda.

(2) Cola signifies only a Creek.
D’ALMEIDA landed, near Cambát, in the year 1519, he saw the ruins of sumptuous buildings and temples, the remains of an ancient city, the history of which was connected with that of a foreign prince. My Pandit informs me, that such ruins exist to this day, not close to Cambát, but at a place called Cavi or Cavi-gauw to the south of Cambát, on the Baroach side, and a little to the southward of a place called Cáná, and in the maps Canwa. There are temples and other buildings, with statues half buried in the sands, with which this place was overwhelmed. Its Sanskrit name is Capila-gram, from which is derived its present one.

The promontory of Aṣṭa-Campron, mentioned in the Periplus, at the entrance of the gulf, appears to me to be Groapnaught point. It was thus called, because it was on the side of Stambha, and Támra, or Cambát. Another name for it was Pápíca, from a place of that name in its vicinity. As it is the same place called Pakidaré by Ptolemy, the true reading will stand thus Bhauca-derá, Bhauki-derá, Bhau, or Bhávicá-derá, that is to say, the house or dwelling place of Bhau or Bhau, an ancient hero of that country, who built the town of Bhau-nagara, or Bhavi-gauw, and probably the same with Bhauki dera. Beyond this cape, according to the Periplus, there is another place, toward the north, much exposed to the waves; and at the entrance of it, that is to say, of the channel leading to it, is an island called Baiones. This island is that of Berum, at the entrance of the channel, leading among shoals to the dwelling place of Bhau, or Bhau-nagara, on the river Bhau, and near the point of the same name. There is also a sand thus called; and the island of Baiones probably claims the same etymological origin; and perhaps, instead of Baiones in the original, we should read Baio-nésses, or the island of Bhau or Bhau. This place, says our author, is difficult of access, on
account of the rapid tides, and because the cables are liable to be cut, by
sharp rocks at the bottom of the sea. This island was once the seat of go-
vernment, according to Abul-Fazil, who calls it Birum. (1) Opposite
to Bhavi-gauw, says the author of the Periplus, and on the right side of the
gulf, in the narrowest part of it, there is a reach, where the land near the
sea appears much broken, and consists entirely of clay. It is called Heroné,
and there is a place called Cammari or Camané. This reach is the sea
coast between the Narmadá and the Jambuffer river. My Pandit observes,
that the country between these two rivers, and along the sea coast, is
called to this day Canum; but he does not know of any particular place
so called. There is not a single stone to be seen; and the country is
flat, the sea shore much indented, and there are very few trees: but
it is probable that it was otherwise formerly; and Heroné is perhaps
from the Sanscrit Aranya, which signifies a thick, but not impervious
forest.

Ptolemy has confounded the points of Svalley, Diu and Jiggat into
one, which he calls Balaion, probably meant for Diu-head, a name
given to it by Europeans, but unknown to the natives; and the nearest
place of note to it is Weyland in Major Rennell's map, from which
Balaion or Valaison seems to be a corruption. The island called by
him Baraké is Dwáracá, as obvious from its relative position; and Baraké
may be only a mistake for Dwáracá. Besides, these two denomina-
tions are synonymous, or nearly so, and imply a door or gate-way.
Dwára is properly the opening, and Bhár is the bar, or barriere, or the
leaves of the door, with which the opening is kept barred or shut; and
it is used, though improperly, for the door itself. It is used in that sense

only in the west of India; yet the verb derived from it, *bara*, in the
infinitive, and *bāra* in the imperative mode, is used all over India,
except in the peninsula. *Tvasṭi*, the chief engineer of the Gods,
having built a palace there, for *Rāṇachurjī* or *Cṛśhna*, (that is
he who fled from the field of battle,) and *Trīcuṃjī* his brother,
placed many of the doors the wrong way; and those that were properly
situated were barred or shut up. When finished, every body crowded
to see it; but were astonished, to find the doors either placed wrong or
barred; and great was the confusion and the uproar, some calling out
*Dwārachāṇḍi*? where is the door? and others bawling out *Bhāro-col*,
open the door; hence the place was ever since denominated *Dwāraca*
and this ridiculous etymology is countenanced in the Purāṇas.

The geography of *Ptolemy*, in this part of India, is distorted to an
astonishing degree; for besides a few mistakes, which I have mentioned,
he supposes the river *Mahi* to form an elbow, and to run close to the
*Narmada*, with which it is made to communicate, through a short canal;
and then afterwards to fall into the gulf of *Cāntha*, or *Cachha*. We were
guilty of as gross an error, two centuries ago; for we made the *Indus*
to fall into the gulf of *Cambat*. The *Mahi* is a celebrated river, and the
daughter of the earth (*Mahi*) and of the sweat (*uṣhna*) that ran copiously
from the body of *Indradyumna*, king of *Ujjayini*, and famous in the
legends relating to the white island in the west. The place where this
happened, in consequence of a most fervent *tapasya*, was called *Uṣh-
mahi* and *Uṣhmahi*, and is probably the *Axuamis* or *Auxomais* mentioned
by *Ptolemy*. The author of the *Periplus* (1) says, that at the
mouth of the *Narmada*, they used boats, which they called *Trappaga*

(1) P. 25, and 34.
and Cotymba; and we read in the Ayin-Acheri, that in Gujarâl the cargo of ships are put into small vessels, called Tahwery, and thus carried ashore (1). My Pandit informs me, that the true pronunciation is Tâberi, in a derivative form Tabericâ, from which the European sailors made Trappaga. Cotymba is no longer in use in that country; but, from derivation, it implies a boat made of the trunk of a tree, and seems to answer to the cathimarans on the Coromandel coast. 'When,' says our author, 'several of these canoes are put together, they are then called Sangarâ,' (from the Sanscrit Sangraha an assemblage;) but in Gujarâl they are called Jûrzâ, from their being coupled together. The king of the country about Calyân and Bombay was called Saraganes; but the true Hindu name was Sarancâ, or Sarangésâ. He was very friendly to the Greeks; but, his kingdom having been conquered by Sandanes, they were no longer allowed to trade there (2). He was king of Ariakê, the country of the Arjyâs; who were foreigners, according to the Brahmânda-purasâ (3), and were denominated Sadinoi, according to Ptolemy, from the Sanscrit Sadhana, lords and masters. Thus, the Portuguese were, and are even to this day, styled, in Bengal, Thâcurs. The English, in the spoken dialects, are called Sâheb-lôgs; but, by learned men, Sadhâna Engriz; and all these denominations signify the lords and masters. Thus, the famous Bhôja is generally styled, in the west, Sadhana, or Sadhana Bhôja. Such probably is the origin of the name of Sandanes, king of the Sadinoi, or Sadhanâsa. I shall speak more fully, in the next essay, of these Arjyâs, in whose country was a famous city, called by Ptolemy Banawâšî. It still exists, and great was its fame in

(1) Vol. ii p. 78.
(2) Arrian's Peripl, p. 36.
(3) Section of the earth.
ancient times; but my inquiries concerning it have hitherto proved fruitless.

In the eighth century, Vana-raja built Narwaleh; and his friend Champa built also the famous town of Champá-nere. In the tenth century, according to Masoudi, Manhaver became again the metropolis of the Bala-rájas; but in the latter end of the eleventh, and in the beginning of the twelfth centuries, they returned to Narwaleh or Narwáreh; and in the year 1022, Sultan Mahmut passed through it, and was much delighted with its situation. The Princes of Málwa resided at first at Ujjayini, but Munja transferred the seat of Empire to Somitpura in the Dekhin, according to the appendix to the Agni-puráña, and now called, after him, Munja-pattana. It is situated on the banks of the Gódáveri; but whether it be the same with Pattana, or Pratishthána, where Saliváhana is supposed to have resided, is unknown to me; though I suspect, that the latter is a little higher up the river, and is called Baithana by Ptolemy, who says, that in his time it was the metropolis of king Síri-Polemaíos, the nearest denomination to which, in Hindi, is Síri-Puloma, or Síri-Pulimána. Somitpura implies the city of blood, and was thus called, according to tradition, because Munja's army was defeated there, with immense slaughter, and himself lost his life. His being killed in the Deccan is mentioned in the Ayin. Acheri (1). The old city of Bénarés, north of the river, Burhá, and now in ruins, is sometimes thus called, and tradition variously accounts for it. Munja's successor resided afterward at Dhárá-nagara, now Dhár, and called also, according to lexicons, Ásárapura, Ására-gríha or Ásárapurá, which is probably the town called Zerogere or Xerogerí by Ptolemy.

Bammogara, mentioned by the same author, is probably Bumun-gawo, or Bumun-gur, on the northern bank of the Narmadá, about thirty miles S. W. of Mandon, and noticed in a route from Sultanpoor, on the Tapti, to Ujjayini.

The immediate predecessor of Vana-rája, at least in the corrected list, is styled Nri-pati, the lord of men, or the emperor; but there was an interregnum; for there were, at that time, neither Bala-Ráyas nor emperors in Gujarat; and the whole country was subject to the emperors of Canoge; for Vana-rája seized upon the royal treasure, on its way from Gujarat to that metropolis.

In these lists, and also in those from the Puránas, the names of many kings, posterior to the Christian Era, are hardly reducible to the Sanscrit standard; and most of them seem to be epithets, and nicknames, borrowed from the vulgar dialects; or else names of persons of low tribes.

In our list we read first, "then will appear princes of the Chauhána, Chawda and Gohila tribes." Śišaca, the first emperor, was a Yádava, or from the Yadu tribe. After the eleventh king, called Dáhima, "then will appear the following tribes, the Ghálás, Macwánas, Húnás, Bhóanas;" all names in a plural form: and these tribes, except the Húnás, belong to Gujarat, and are still extant. What the author meant, by introducing them here, is not easily conjectured: but I suppose, that there was an interregnum, during which, these tribes became independent, in their own districts. "Then will come Nicumbha, the Jálí, or of the Júlim tribe. "His successor was Tháca; when the C'hárvi-vi-hahá appeared;" in some copies we read C'hárvi-vi-hahá, and the first part is to be pronounced nearly C'hárvi-vahá, answering to the Persian Chár-i-aur, or the four associates.
The third table contains Raghunath's list, as current in the eastern parts of India. It begins with the Cali-yuga, or rather with the Mahabharata, or great war; but I have omitted the first part, prior to the times of Mahabali, as it has not the least affinity with the lists from the Puranas, and throws no light on that part of the ancient history of India. Mahabali, according to the present list, reigned forty years and eight months; which is conformable to the Puranas, in which he is said to have reigned 40 years, including the 12 years, during which his sons, the Sumbalyadicas, reigned together, and which are generally ascribed to him. From the first of his accession, to the first year of Vicramaditya's Era, the present list allows 293 years, 6 months and 9 days; to which 56 years being added, it will place his accession to the Imperial throne 355 B.C. which is very correct, as I have shewn in my essay on Anu-Gangam. Unfortunately, it is the only correct part in the whole list. The successor of Mahabali was Chandra-Gupta, or Chandra-pala, fostered or concealed by Lunus; and who lies here concealed under the name of Amrit-pala, for Lunus is but a mass of Amrit, which Chandra-Gupta is supposed to have been fed with, during the time of his concealment; and a reign of 28 years is here assigned to him, as in the Puranas.

From the first of Aditya's Era, to the first of Sudraca, there are 347 years, answering to A.D. 291; but in the Cumbric-Chanda, it is declared, that he began his reign in the year of the Cali-yuga 3291, or A.D. 191; and other circumstances prove, that this date is true, or very nearly so. There are, to fill up that space, only nine kings, whose reigns are of an excessive length; and 100 years exactly must be struck off. Sudraca is also styled Vicramaditya; and here is the most mate.
rial difference, between the various copies of the Varshdvati; for in the current in the west, instead of Sudraca, we read Vicramaditya, whose predecessor was Bhartrihari, or Sacwant and Samudrapala his successor.

From the first year of Sudraca, to the first of Vicramaditya, the son of Bahram Gur, there are 342 years, and only fifteen kings to fill up that space. He began his reign A.D. 441, or 442, and of course we must strike off 100 years more from that period.

From the first year of this Vicramaditya, to Mahabhata and the first of the Hejra, there elapsed 196 years; which is about 16 years too many. From this period, to Deva-Dhara-sinha or Bhôja, 148 years; which is too little by about 200 years; but by introducing here the 200 years we have struck off before, it will place either the accession, or death, of Bhôja, in the year 970. From Bhôja to Tralocya-Pala, or Jayachandra, 192 years. Sudraca, Suraca, called also Aditya, Srikarna-Deva and Srikarna-Raja-Vicrama, was a famous conqueror and most powerful Emperor. He is introduced, in the list of the kings of Bengal, as one of the successors of the famous Bhaga-Datta, the son of Naraca, king of Pragytisha, in Assam; and to whom Caneva, the black, or Crishna, restored the kingdom, after he had killed his father.

In that list, he is supposed to have lived 1357 years after the Mahabharata; which will place him about the beginning of the Christian Era; but, according to the Jainas, who place the beginning of the Cali-Yuga about 1000 years B.C, this will make his reign coincide nearly with the period assigned to it by the Pauranics.
The last king of Bengal was Lagshmanaḥ, who was deprived of his kingdom by Muhammed Bakthyar, the general of Cotub-ud-din, about the year 1207; for, in 1209 the same general was in Gujarāt, and the Emperor died also in that year. From the first of Sṛi-Carṇa-Dēva, or Sudraka, to 1207, there elapsèd 1017 years, during which reigned 49 kings, at the rate of about 20.7 years to each reign. The last dynasty in this list, consists of seven princes, who reigned 106 years in all.

The dynasty next to this is remarkable, for the epithet of Pāla, which every one of them added to his own name, or title. The first of that dynasty was Bhū-Pāla, who was still alive in the year of Vicramadityya 1083, answering to the year of Christ, either 1017, or 1027. Bhū-Pāla had two sons, Sthīra-Pāla and Vāsanta-Pāla, who erected a singular, and at the same time sumptuous monument, in honor of Buddha, at a place called Sarnāth, near Benares. This was in the year of Vicramadityya 1083, as recorded, in an inscription, found there some years ago, and inserted in the fifth volume of the Asiatick Researches. Tradition says, that before it was completed, it was destroyed by the Musulmans; and there is every reason to believe, that this was really the case. For the arches and vaults, of the greatest part of the buildings, which are now buried under ground, still retain the supports of sun-dried bricks, over which the arches were turned. In the year 1017 Sultan Mahmud took Benares, and the town of Csarn, or Cusuma, now Patna, and went even as far as the country of Ouganam, or Unga, to the west of the Cossam-bazar river. The next year, he overrun again these countries, and penetrated as far as Kifroje, or Cachha-Raja, in the northern parts of Bengal, called Koge by Firishta, and Couche by
European travellers of the 15th, and 16th centuries, (such as R. Fitch:) and Cug or Coos-Bebar made part of it. In a manuscript account of Benares, compiled for me, by learned men, about sixteen years ago, it is said, that according to tradition, this monument was built by a powerful prince, called Buddha-sena, an epithet which implies, that this king, whatsoever he was, was a zealous follower of Buddha. He abhorred the Musulman name, and during the very first invasions, he was summoned to submit, and pay an yearly tribute, but refused.

The Musulman army advanced, put every body to the sword, and destroyed the fort and the place; and it is obvious, from the remains, that neither was completed. With regard to the date 1083, it was suggested to me, that it may answer, either to the year of Christ 1027, or 1017; because formerly the Era of Vicramaditya was reckoned ten years earlier than now; and this mode of reckoning is still in use in the south of India. It was in use in Cashmir, at least some hundred years ago, as appears from the Raja-Tarangini. When this alteration took place, and when it was received in the northern parts of India, is not known. On my asking the reason of this correction, my learned friends did not appear to understand the subject well; but, from what I could gather from their conversation, it appears to me, that their ideas on this subject were, that the years of the Era of Saliyáhana, being Sydereal, are not subject to any variation. That the years of the Era of Vicramaditya, which are now Luni-Solar, were not so formerly, and that the Lunar years of it, instead of being regulated by the course of the Sun, and adapted to it, were formerly regulated by the revolution of Jupiter, the years of which were believed, at that early period, to
be equal to as many Solar years (1); for this planet, as seen from the earth, comes back to the same point in heaven, after a period of twelve years and five days; and in the Deccan, they reckon the Cycle of Jupiter ten years earlier than in the northern parts. When the error was discovered, the years of Vicramaditya were made Luni-Solar, and they retained no further connection with the revolution of Jupiter. They added, that several corrections, more or less perfect, obtained at different times, and particularly, one of fourteen years, ascribed to Bhartrihari, or rather referred to his time; and which was said to have been the length of his reign.

In that case, the demolition of the monument, which we are speaking of, took place in the year 1017, during the invasion of Mahmud; for from that period, the Hindus, in this part of India, remained for a long time unmolested by the Muslims. Modud's invasion, in 1043, was directed toward the south; and in that direction only, he penetrated further than Mahmud, as recorded in history.

King Bhúpála is called also Mahi-pála, in this inscription; but these two epithets are synonymous, and signify he who fosters the earth, or world. Sthíra-pála, called Dhír-pála in the Ayin-Acheri, had a son, called Deb-pála, or Dáva-pála; who, in my opinion, is the same who is mentioned in the grant found at Monghir, and in the inscription upon a pillar at Buddal. His father was Dharma-pála, which probably was the title given to him, when he succeeded his father Bhú-pála, called Gó-pála in the grant. The Hindus always have two names, one of them answering to our Christian names, and used in the performance

(1) Asiatic Researches, vol. iii. p. 216, &c.
of religious rites. Besides, kings have at least one title given to them, besides nicknames occasionally; and it is allowed to make use of synonymous terms; and thus Gó-pála, on ascending the throne, was indifferently styled Bhú-pála and Mahí-pála. The son of Srí-Déva-pála was Rája-pála, perfectly synonymous with Bhúpátí-pála, as he is called in the Ayin-Acheri: for all Rajas are equally denominated Bhú-pála.

As the Hunás or Huns, are mentioned in the inscription at Buddál, Srí-Déva-pála must have lived at a period comparatively modern; for the Huns made their first appearance, on the borders of Persia, in the time of Bahram-Gur, who began his reign in the year 421. In the year 458, Balkh was their metropolis; and, in the beginning of the seventh century, they were settled in the Panjáb, according to Cosmas Indicopleustes, who calls them white Huns; and they are the same, of course, with the Abtilis, Abtelites or Enthalites. It is the opinion of several well informed men, from Cabul and the adjacent countries, that the Abdalís existed, as a nation or tribe, long before Muhammed; and that the denomination of Abdál is not derived from the Persian word Abdil, the servant of God. In that case, they may be a remnant of the Abtalís, or Abtelites. It was about that time, that the dynasty of the Hunás, in India, began, and which is recorded by the Pauránics. There were thirteen kings of them, and eleven more under the name of Mauña, as it is supposed; but whether in due succession, or in a collateral line, or only partially so, is unknown. We find that their power extended even into Gujarát, as I observed before, about the Era of Muhammed; and some think that Mauña is a contraction from Machwána or Mahá-Hunás; for, in the west of India, they say Maga, and write Mach'a, for Mahá; and, instead of Muhammed, they say
Vicramaditya and Salivahana.

At and Mac'hobhat, as we used to do formerly in the west (1). The Macwandas are noticed in the Gujarati list, and also in the lists from the Puranas, in the chapters on futurity. In the Facsimile of the grant of Monghir, in the first volume of the Asiatick Researches, the date is plainly 132, instead of 32; but, had it been as obvious in the original, Mr. Wilkins, and the Pandits, who read it with him, could not have been mistaken. To decide this, recourse must be had to the original, which is, I believe, deposited with the Royal Society. The two Musulman travellers of Renaudot, in the ninth century, remark, that the Hindus did not, like the Arabs, use a general Era, but reckoned the years from the accession of the reigning prince. This is acknowledged by the learned in India, and that it was the constant practice, till a period comparatively modern, and the limits of which it is not easy to ascertain. Several princes have attempted to set up Eras of their own, and these princes, instead of Saca-bandhis, or Sacwantas, were styled simply Samvaticas, or Santicas. Thus, Vicramaditya's Era was considered as Saca, for the space of 135 years, and himself was then a Sac-wanta; but his Era is now Samvatfara, or Samvat, and himself only a Samvatica; and the present Sacwanta, or Saca, is Salivahana. The Pandits, who assisted Abul-Fazil, took particular notice of that circumstance, and carefully pointed it out to him (2). As the date in the Monghir grant is within the 135 years, during which the Era of Vicramaditya was Saca, it should have been styled thus, and not Samvat; and hence it may be concluded, that the date has no connexion with that Era.

(1) See Tamuli dictionary.
The reason, why the famous Śrī-Deva-Pāla is not mentioned in the līlās from the Purāṇas, is, that he lived in too modern times, for they do not come so low. After the invasion of Sultan-Mahmud, in the years 1017 and 1018, the Hindus enjoyed some respite, till the last Mahābhārat, or great war, in 1192, when all the heroes of India fell in the plains of Thānu-Sar. During that period, Śrī-Deva-Pāla might humble those of Dravīra and Gurjarāt (that is to say the Bala-rāyās), and the Hunas in the Panjab; for he by no means conquered them: and he probably humbled them only, by refusing to pay some yearly tribute, and putting on a bold countenance, at the head of a powerful army. It seems, however, that he marched though the Vindhyan hills, to the west of the Jumna, and then went into the Panjab, as far as the borders of the kingdom of Cāmboja, or Ghazni. The time, in which this expedition took place, cannot be ascertained, but within certain limits. After Modūb’s invasion in the year 1043, the Hindus recovered some strength and courage, under, the weak reigns of Togrul the usurper, and Furruck-Zād. The enterprising Ibrahim succeeded him; but it was not till the year 1079 that he was enabled to lead an army into India; and probably the expedition of Śrī-Deva-Pāla took place, between the years 1052 and 1059, during the weak reign of Furruck-Zād, of whom nothing is recorded.

The list of the kings of Bengal, in the Ayin Acberi, was formed by Jainas, who place the beginning of the Calī-yuga only 1078 B. C., but it was afterwards altered by the followers of Brahmā, and the beginning of it placed 3100 B. C. and the reigns of every king prodigiously lengthened, in order to make the whole coincide with the first year of the Calī-yuga. The Raḷās of Sirinagur pretend to be descended from
Bhaca-datta, contemporary with Krishna; but in their pedigree, communicated by the present king, to Captain Hardwicke, in the year 1795, it is acknowledged, that for the space of 900 years after Bhaca-datta, nothing is recorded of his successors, not even their names (1). If the same correction be introduced into the list of Bengal princes, it will place the reign of Ananga-Bhima in the first century before the Christian Era, and bring the whole list, at least, within the bounds of historical probability.

Through the uncertainty of Persian orthography, and the carelessness of transcribers, the names of these princes are most miserably disfigured; and I shall only observe here, that the real names of the three predecessors of Sudraca, are Sancara-sinha, Satrujita, and Bhupati-pala, or Raja-pala. His successor's name is Jayadraca, called Krishna in the Puranias, and said there to have been his brother.

I shall now produce another list, which was brought from Assam by the late Dr. Wade, and given by him to Mr. Harington. It was originally the same with the Vanfā-vali, but it was new modelled, according to the ideas of the Jainas; though, I must confess, that it is difficult to say which is the original one. Be this as it may, it is certainly a most curious list, and in some instances it affords useful hints.

<table>
<thead>
<tr>
<th>yrs.</th>
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<tr>
<td>To Yudhisht'ira,</td>
<td>1880</td>
<td>8</td>
</tr>
<tr>
<td>To Mitra-sinha,</td>
<td>295</td>
<td>6</td>
</tr>
<tr>
<td>To Nri-sinha,</td>
<td>497</td>
<td>0</td>
</tr>
</tbody>
</table>

In this list, Mitra-sinna is meant for Jina, and Nṛśinna for Gautama; and Yudhisht'hir is placed here, by the followers of Jina, in the 1881st year of the Cali-yuga of the followers of Brahma, but in the beginning of their own, for which they have two different reckonings. According to one, the Cali-yuga began 1078, but according to the other, 1219 B. C.; and this last computation has been adopted here. According to it, Jina or Sāca was born 1207 years (1) B. C. or 12 years after the Cali-yuga and Crishna (2). He lived 257 years, and died accordingly 950 years B. C. Those who place the beginning of the Cali-yuga 1078 B. C. say, that Jina was born in the year 1108, and died in 1035. Others, admitting the same Era, say, that he was born in the year 1036, and died A. D. 950, and thus, whether he lived 257 or 77 years, his death equally happened in the same year before Christ.

The next is Nṛśinna or Gautama: Nṛśinna is a well known title of Śālivāhana, and in the Gujarăt lift I mentioned before, Śālivāhana is introduced in the solar line, in the room of Suçata or Gautama. This explains a passage from the Varāha-sanhitā, in

(1) See Kempfer.
(2) Asiatic Researches, vol. 2d p. 122 and 15.
which it is said, that Śālivāhana, or Sāca, the ruler of the period denominatated after him, appeared when 2526 years of the Era of Yudhishthīra had elapsed; that is to say, he was born 574 years B. C. and the year 544 is considered as that, either of his manifestation to the world as a legislator, or of his ascension into heaven. The Jainas, as well as the followers of Brahmā, claim Śālivāhana as their own, and suppose that he manifested himself several times to the world; and as there are several Vicramadityas, there are, of course, several worthies of the name of Śālivāhana.

Vṛįjā-pāla, or Brįja-wāla, is the famous Mahā-bali: for the kings of Magadha were thus called, as I observed in my essay on Anu-Gangām; and this title was distorted into BIRDWAL and BERDAUL by Mufulman writers. He is placed, erroneously, a little before the Era, of Vicramaditya, by the compiler, for reasons which will appear immediately.

From this famous Emperor, he passes to SADAT-pāla, or SADASVA-pāla, father-in-law of Bahram-Gur, and who gave him his daughter in marriage, about the year 426; thus passing over the dynasties of Sudraca and Śālivāhana. The last dynasty, which he supposes to have lasted 500 years, our compiler has transposed, and brought down as low as the invasion of Timur, in the year 1398. This famous conqueror is generally called Timur-lenk, by Hindus, in their Chronological lists, and also in an inscription near Bijigur.

This account of Śālivāhana’s Dynasty at Dillī, and at so late a period, however strange, is not entirely groundless. TIEFFENTHALER, in his account of Subah Dillī, mentions two kings of that name, on
the authority of some Persian writers, whom he does not name. I saw
the good old man, at Lucknow, in the year 1784. He was a man of
austere manners, and incapable of deceit. His list of the kings, of the
Tomara and Chohan tribes at Dilli, has certainly much affinity with
those in the Ayin-Aberi (1); and the Khelawey-ul-Towairic and Ferishta's account of the Subahs of India, are most likely the sources, from
which the good father drew his information; but as these tracts are not
at present within my reach, I cannot ascertain this point.

The Bhat, or Bhaticas, who live between Dilli and the Panjab,
insist, that they are descended from a certain king, called Sālivāhana,
who had three sons, Bhat, Maya, or Muye, and Thaimaz, or Thāmāz.
Muye settled at Pattāleah, and either was a Thānovi or Thawonī,
or had a son thus called. When Amir-Timur invaded India, he found,
at Tojogpoor, to the N. W. of Dilli, a tribe called Solun or Salwan,
who were Thanovis or Manicheans; and these he ordered to be massa-
cred, and their town to be burned (2). Sālivāhana is generally
pronounced Salwan and Salban in the west, and Niebuhr calls him
Shah-Lewan.

The Manicheans were Christians; and when Father Monserrat
was at Dilli, at the Court of Achar, he was informed, that near that
metropolis, and to the S. W. of it, and of course at Toglockabad, near
the palace of Pithaurā, the usual residence of the ancient kings of
that city, there were certain tombs, which were ascribed to be those of
of some ancient princes of Dilli, who were Christians, and lived a
little before the invasion of the Musulmans. If these tombs really

(2) Deguignes Histo. of the Huns Vol. 5. p. 50.
exiled, they did not belong to Hindus, who never erect any; they could hardly belong to Musulmans, for it is scarcely possible that they should be mistaken by Musulmans; since the tombs of those among them, who fell in battle, or otherwise died, in the beginning of their invasions, are looked upon as places of worship; and those entombed there are considered, either as martyrs, or saints. In speaking of the tombs, and other monuments or events in India, Father Monserrat says, with much candour, ‘I was told so in that country,’ or ‘I was assured of it by respectable persons; but whether it be so or not, I cannot further say.’ He explains himself in these terms, with regard to thirteen figures, in baselo relievo, upon the rocks of Gwalior, which he visited in his way from Surat to Dilli, and which were supposed, by Christians in India, to represent our Saviour and his twelve disciples; one figure in the middle being a little higher than the rest. Monserrat says, that they were so much defaced, that no inference could be drawn from them, except their being thirteen in number (1). The foregoing particulars, concerning the Bhat, Šaliváhána and his three sons, I obtained from an intelligent native, whom I sent to survey the countries to the N. W. of Dilli. He was employed, on that service, from the year 1786 till 1796; and, in the year 1787, he was in the country of the Bhat. His instructions were, to inquire particularly into the geographical state of these countries; and, whenever he could find an opportunity, to make inquiries also into their history and antiquities. At that time I knew very little about Šaliváhána, and was still less interested in his history; and of course that ancient prince was not mentioned to him; and the knowledge which he obtained, concerning him, among the Bhat, was merely accidental, and by no means in consequence of any previous directions from me.

(1) P. 154.
The Heresy of the Manicheans spread all over the western parts of India, and into Ceylon, at a very early period, in consequence of violent persecutions in Persia, during which the followers of Manes fled, in great numbers, and at different times, into India: and it is even highly probable, that Manes remained a long time concealed in that country, in the fort of Arabion, on the eastern banks of the river Strangha, now called Chitrangh and Cagggar. The Mesopotamia here mentioned by Archelaus, the Bishop, is the five Anturvédas, or Mesopotamias of the Panjab, commonly called the five Bhédas or Bhadies: and Strabo, speaking of the Bhéd, or Anturvéd, between the Chináh and the Jellam, says, "in this Mesopotamia." and here the pronoun this has an obvious reference to the several Bhédas or Mesopotamias of the Panjab. The river Strangha is called Saranges by Arrian; and the Chitrangh, flowing from the northern hills, passes to the westward of Sáhuñ-sar or Thánu-sar, at some distance from which the water is absorbed by the sands; yet the vestiges of its ancient bed may be traced as far as Bacar on the Indus. The report of my native surveyor, concerning this river, is also confirmed by the report of General Thomas, in his Memoirs. (1) There were Bhat, or Bhattis, in that country, long before the arrival of Manes; for Ptolemy, in the beginning of the third century, takes notice, in that country, of two considerable towns, obviously denominated after them. The first is Bata-nagra, or Bhat-nagara, the town of the Bhats. Bhat-nere is the vulgar pronunciation of it; but the present town of Bhat-nere is not the same with the Bhat-nagara of Ptolemy; which was to the westward of the river Beyah, and is probably the town called Bhatyaleh. The other place noticed by Ptolemy is Batau-cai-sara, a compound

(1) P. 164.
name; and in the true idiom of the Hindi language, Bhaton-ki-sara, or Bhaton-ca-sara, the pool of the Bhatis. Bhaton is the plural form from Bhat, and ki or ca the mark of the possessive case; and sara is a pool or lake. Bhaton-ca-sara is according to the idiom of the dialect about Dilli; but at Lahore, and in the Panjab, they would say Bhatty-an-da-sara; for as they say there Bhatti for Bhat, the plural form is then Bhatty-anh with a nasal n, and da or di are the usual marks of the possessive case with them. Bhatty-an-da, is also a derivative form, implying as much as belonging to the Bhattis, and is synonymous with Bhattyaleh. From the situation assigned to it by Ptolemy, I suppose it to be the same place which is called Bhatlinda, to the N. N. E. of Bhat-nere. The Bhattis are shepherds, and various tribes of them are found in the Panjab; and they also inhabit the high grounds to the east of the Indus, from the sea to Uch. These tribes are called Ashambhetti in the Ayn-Acheri; but several well-informed men, who had long resided in that country, say, that the true pronunciation is Acsham-Bhatti; which implies the many troops, or bands, of the Bhattis; because they go by troops, selected from various tribes or families.

Mañes gave himself out as the Christ, and had also twelve disciples; and, in the character of Christ, he became Sālivāhana in India. He had three disciples, exalted above the rest, and their names were Buddha or Addas, Hermas or Hermias, and Thomas; which I conceive to be the same with Bhat, Maya or Muye, and Thaimaz or Thamaz, the supposed sons, or rather disciples, of Sālivāhana. In the seventh century, there were Christians at Serinda, or Ser-Hind, with a monastery; and two monks from that place, at the command of the Emperor Justinian, carried silk worms, or rather their eggs, to Constantinople.
The compiler of the list, brought from Assam by the late Dr. Wade, was well informed, with regard to the last blow given to this dynasty of Manicheans, by Amir-Timur, in the remains of a feeble tribe of them, at Toglock-poor. But it is much more reasonable, I think, to place the overthrow of that dynasty in the latter end of the twelfth century.

There was in Egypt a certain Scythianus, who had studied, it seems, at Alexandria, and visited the anchorets of Thebais. He went by sea to India, according to St. Epiphanius, and brought thence four books, containing the most extravagant notions: but he died, before he could preach his new doctrine, in the latter end of the second century. He was succeeded by his disciple, called Terebinthus, who went into Palestine; but was obliged to fly to Persia, where he declared, that he was another Buddha or Buddh, and like him born of a virgin, and brought up by angels, among certain mountains. Perhaps this new name was concealed in the old one Terebinthus, from the Arabic Daru-Botam, Botam in Arabic, and Butam, or Butham, in Chaldaic, signify a Terebinth in general; but the largest and best fort is called, in the former language, Daru-Botam, which may possibly have some affinity with the Buddh-gach' or Buddh-Teru of the Ceylanese and Buddhas in general, and which signifies the tree of Buddha, for Gach' in the spoken dialects, and Teru or Dru in Sanscrit, signify a tree. For he said, when he entered upon his mission, Senon jom Terebinthum sed alium Buddam vocari, that he was no longer Terebinthus, but another Buddha (1). The Terebinth is unknown in India, except beyond the Indus, where I am told that there are forests, of that fort which produces the Pistachium, or Pistachio, called Pfistâ, in that country, and all over India.

(1) Salmacius de Homonymis, and Alphab. Tib. P. 370.
This name was probably given to him, in his infancy, by Scythianus, who was conversant with the notions of the Hindus. Having met with a strong opposition, from the priesthood in Persia, he was obliged to conceal himself in the house of a widow; where, falling from his bed, he broke his neck, and died. His writings fell into the hands of an adopted son of the widow, who became a convert to his opinions. Cedrenus and Suidas say, that he was by birth a Bráhman: a good musician, and an excellent painter. He maintained, that he was the Paraclete, and Christ; and the ignorant among the Christians, with his disciples, insisted, that he was Buddha or Budd’ha, himself, regenerated; and he was afterwards regenerated, in the same manner with the Lamas, in the person of his disciple Buddas-Addas, or Ada-Manes, who, after many narrow escapes, was put to a most cruel death, by the king of Persia. His followers, being alarmed, left the country; and many according to D’Herbelot, retired to India. This is confirmed by the testimony of one of Renaudot’s Mohammedan travellers, who went to Ceylon, in the ninth century; and says, that in that island, there were many Jews, and Manicheans or Thanovians: for thus they were called in Persia. Peter the Sicilian, who lived in the ninth century, says, that a little before his time, a certain Sergius asserted, that Tychicus, the disciple of Paul the apostle, had been regenerated in him; that he was the Paraclete, and a bright star descended from heaven. He boasted, that he had preached the Gospel in various countries, and particularly, to the inhabitants of Laodikeia, near the country of the Cynachorite, in the East. The Gangetic provinces were known, at that time, in Persia, under the name of the country of Canacor, its metropolis; and Laodikeia is probably Lhahé-dac, or Lhah-dac as suspected by Father Cassiano. This Sergius, a Manichean, appeared in the character of
CHRIST, and of the Paraclete, and was in India, and at Lhá-dac, in the ninth century, towards the latter end of which there appeared another Šalivâ-hana, in the country about Dilli, (according to the lift brought from Assam, by the late Dr. Wade.) Deguignes shows, that Manes propagated his doctrine in Tartary, where he was revered as a God. In the country of Chogil, in Tartary, often mentioned in Persian Romances with Khoten, he erected several temples, which he adorned with pictures. His skill, as a painter, is greatly extolled, by Persian and Arabian writers, as well as his famous collection of drawings, in a book called Ertey; and every collection of pictures is still thus called to this day. Many authors, both ancient and modern, have laboured to find out the etymology of his name Mani; but it seems, that it was his original Hindu name, which signifies a jewel in general, and is not uncommon, to this day, in compound names, as Mani-râma, Níla-Mani &c. It was the general opinion formerly, that Manes was a Hindu, and his father a Brahman. He was also called Cubricus. Cubri in Hindi signifies a hunchback; and Cubrica, in a derivative form, signifies, either a man, who is crook-backed, or the son of such a man. His father's name was Patékius, and Páthaca, to this day, is a very common surname in India. Carossa, the name of his mother, is more obscure and uncommon. The Manicheans said, that Christ was the primeval serpent, who enlightened the minds of Adam and Eve; the creator, the preserver, and the destroyer; the original soul, the preserver of the soul, and the fabricator of the instrument, with which the salvation of the soul is effected. He was born of the earth, and, for the redemption of mankind, suspended on every tree: for they saw him crucified on every tree, among its branches.
The reader will easily perceive some deviations, from what I had
advanced in my Essay on Anu-Gangam, which was already in the press,
when I found, in perusing various tracts, several scattered passages,
which have induced me to make the present corrections and additions.
I shall conclude this essay, with a few remarks, on the various tribes,
which ruled over the countries bordering upon the Indus, and the Vindhy-
yan mountains, according to the Paurānicas. The Iśhwadeavas, or children
of Iśhwācu, who ruled in the countries watered by the Indus; and this
dynasty consisted of 24 generations. The Abhiras, or Shepherds, in the
upper parts of the Indus, ten generations or reigns: then the Śacás, un-
der ten kings, and probably kings of Persia. Then came eight Yavana
kings, or Greeks of Bactriana; and fourteen Tusharánas, or from Turán;
and these belonged probably to the Parthian dynasty. Then came
seven Gārddabhinas, thirteen Morundas, or Burundas, as many Huna
kings and eleven Mauñas. Many suppose the Morundas and Mauñas
to be dynasties of various branches of the Hunas; but they produce no
authority, and it is of course a mere surmise. Be this as it may, they are
acknowledged to be foreigners. The Gārddabhinas are the descendants
of Gārddabha, or Bahram-Gur, who began his reign in the year
421. The Hunas are the white Huns of Cosmas-Indicopleustes, and
consequently the same with the Euthalites, or white Huns, who were set-
tled in the Panjáb, in the seventh century. The Vindhyā-Sacći is a col-
lateral dynasty, descended from Kosru-Perviz, and which began between
the years 820 and 830. Their metropolis was Udāya-pura, and the Pau-
rānicas have recorded the names of seven of them, who reigned all to-
gether 90 years. The Morunda of Ptolemy are the same with (the
Morunda; Burunda, or Burunía of the Purānas. They are only men-
tioned once, in the prophetic chapters; and are supposed, by some Pan-
dits, to be a tribe of Huns; but this is a mere surmise, founded on their being mentioned with that tribe. They were foreigners, and according to Ptolemy, in the beginning of the third century, they were in possession of the countries, lying between the Ganges and the river Coa, or Coosy, including North-Bihar and the province of Ouâle. It seems, that their possessions extended even to the south of the Ganges; for Oppian says, that this river flowed through the country of the Murramites (1). The country which they possessed constituted afterwards what was called the country of Canoge, denominated also the kingdom of Bouroz by the earlier Mussulman writers: and this appellation is perhaps only a corruption from Burunda. The Burundas were probably thus called, because they were originally from the country, called Porouz by Deguignes, and which seems to have been the ancient name of Tibet, or Tibet, called also Baratal, in a derivative form, as Bengal from Beng. Its metropolis is called Laffa, Barantala and Putala. Putala, Bootân and Tibet seem to be derived from Buddha, called, in that country, But, Put, Bot and Pot. The natives of that country understand, by Bootan the kingdom of Laffa, and by Tibet the regions to the westward toward the source of the Ganges; and this was, it seems, the country of Porouz; and the idea seems to be confirmed by Deguignes (2). The kingdom of Tibet, according to Chinese writers, extended as far as the country of the Brahmins, in the year 589 (3); and in the year 649, the king of Tibet invaded the inland parts of India, that is to say Benares, according to Deguignes. This account of these western dynasties, which ruled over the countries bordering upon the Indus, I shall resume.

(3) Ditto p. 164.
in an essay, both geographical and historical, on such parts of India as were traversed by Alexander. It is nearly finished, as well as the map intended to accompany it.

The doctrine of Manes could not fail of meeting with many admirers, in India, where he appeared in the character of Buddha, and of Christ, or Sālivāhana. Transmigration was one of his tenets; and the rule of life and manners, of his disciples, was very severe and rigorous. They abstained from flesh, fish, eggs, wine, &c. and the ruler of every district, and president of their assemblies, was considered as Christ; and, about the sixth century, they had gained considerable influence in the east. The Bhattis, in the west, are now Muslims; but, as they are of a roving disposition, some tribes, at various periods, emigrated, and settled in the adjacent countries, particularly to the eastward of the Ganges. Such an emigration took place of late years, and they settled near Chandowsfey, in Rohilcund: but, at a much more ancient and unknown period, they crossed the Ganges, and settled in the district of Buddhahown, and there built a fort, called, after their supposed grand-fire, Côte-Sālivánhana, or Sālbāhan, the fort of Sālivánhana, and which is mentioned in the Ayin-Acheri (1); and this happened, before they had embraced the religion of Islam: they emigrated probably on account of some religious persecution; as well as the other descendants or followers of Sālivánhana, in the Purgah of Baisvawârd, about three days journey from Lucknow, and in the district of Khairabad.

(1) Vol. 2d Tuchim Jumna p. 84.
These call themselves Vaisyas, or Baisyas, and also the Vaisyas of Śālavāhana, Śaca-Rāja-vānsas and Śaca-Rāja-cumāras, that is to say, the royal offspring of ŚACA or Śālavāhana. All the members of this tribe insist, that their chief is really an incarnation of Vishnu, in the character of ŚACA or Śālavāhana, regenerated, like the presidents and chiefs of the Manicheans. This the chief, with affected modesty, seems rather unwilling to acknowledge; but in despite of his affected endeavours to conceal his divine origin, peculiar circumstances will betray him, and which are related, in numerous and fulsome legends, current through the whole tribe, and which I shall pass over. There are also, in the Peninsula, Śaca-vānsas or Śaca-Rāja-vānsas, which signify, and are understood, in that country, to signify, the offspring of ŚACA, or king ŚACA or Śālavāhana; and in the east, and also in the west, the followers of a deity, or some legislator and institutor, are often called his offspring (2). It is but lately that I have been acquainted with this singular tribe of Rāja-Cumāras, who do not differ from other Hindus of the same class, and have now lost every vestige of their ancient religion, except the name of their institutor.

(2) Asiatic Researches vol. 8 p. 597.
APPENDIX TO ESSAY IV.

I

PTOLEMY places Ujjaini about 255 geographical miles from the mouth of the river Mahi, but the real distance is not above 200. The different places, mentioned by that author, between Ujjaini and the sea, stand thus. From the mouth of the Mahi, to its supposed communication with the Narmada, 60 G. M. to Tiágura 50; to Minnagara 50; to Zerogere, now Dhár or Ására-gur, 55; and to Ujjaini 40. The two last towns are erroneously placed by him, on the banks of the Narmada, and I strongly suspect, that it is also the case with the two others. They are also placed on the left or southern bank of that river, which is not the case, unless perhaps with regard to Tiágura, which might have been situated to the south, either of the Narmada, or some other river mistaken for the Narmada. Tiágur is certainly a true Hindi denomination, and there are several places thus called, in the more southern parts of India; yet in this instance, I suspect that it is a mistake; for Paya-gurra, or Pava-gur, to the south of the river D'had'hara, mistaken by Ptolemy for the Narmada; because these places were said to be in the tiram of the last river. Tiram implies only the country bordering upon the sea, or a river: but it was misunderstood by travellers, and supposed by them to imply the banks of the Narmada. Thus Payagurra was said to be in the tiram of the Narmada, which is very true; and to the eastward of a river, that runs by it. The D'had'hara river runs afterwards very near to the Mahi, in the vicinity of Brodrá; and there might have been for-
merely a communication, either natural or artificial, between these two rivers; and the nature of the soil, with the distance, certainly countenances the possibility of such a communication. The town of Nasica, placed by Ptolemy on the Narmadā, I strongly suspect to be out of its place, and to have been originally meant for Nasica, or Naṣaṅka, near the source of the Godāveri, and to the N. E. of Bombay. It is also my opinion, that the Sardonyx mountains are misplaced by Ptolemy; and indeed such is the construction of his map in that part, that there is no room for them in their natural place; and I take them to be those situated to the east of Baroche, between the Narmadā and the river Mahī, where to this day they dig for precious stones. In consequence of this erroneous construction, the rivers Paddar, Sābhra-mati, and Mahī are confounded, and the whole peninsula of Gujarāt disappears. The reason I conceive to be, that the shores were not frequented, on account of the vicious and untractable disposition of the natives. In the fourth century, mention is made of Diu, under the denomination of Dibu or Divu (1); its inhabitants were called Diwai, Dibeni and Diveni; and it appears that this denomination extended to the whole peninsula. In the same manner, the Muslims gave formerly the name of Soma-natha, to Gujarāt, from a famous place of worship of that name.

It seems, that the inhabitants of that country had, by their piracies, greatly offended the Romans; for we read, that they were forced to send an Embassy to Constantinople, and give hostages for their future good behaviour, and the famous Theophilus was one of them. When

we read in Strabo, that Menander conquered not only Patalene, but also the country of Sigertis, and the kingdom of Tassariostus, there is a strong presumption, that these countries were contiguous to each other. Patalene is well known; and Sigertis is from the Hindi Seher-deś, the country of Seher, or Sehr, mentioned in the Ayin-Acheri, where it is called Seeree, and its Rāja Sehrīs, and by others Sīhar (1). Abul-Fazil says, that it was bounded to the east by Cashmir (read Ajmir); to the west by the river Mehran or Indus. It had the sea to the south, and to the north the mountains, that is to say the black mountains of Uch'h (2).

I have met lately with respectable and well informed men (3), from that country, who declared to me, that the country to the west of the Indus, between the river and the mountains, is called by the natives Lehr and Leherēh, and its inhabitants Leherāī or Leherāī. In the same manner, the country to the eastward of the Indus, is called Sehr, Sehereh; and its inhabitants Sehrāī or Seherāī. These two denominations might be written Lehrāhi and Sehrāhi; but the letter H is not to be founded, and serves only to separate the two vowels.

The country of Lehereh or Lehereh, is called Nodheh or Nedeheh by Ebn-Haukal (4), and Nodha by E L Edrissi. The town of Lehwun near Hydrabad, (and both cities are to the west of the Indus,) derives its name from that same source; but it is generally called Nehr-wun or

(1) Ayin-Acheri Vol. the 2d. p. 149 and 149.
(2) Do. p. 145.
(3) One of them was several years in the service of Gholam Mohammed Ablafi, ruler of Sind. Ablafi signifies a descendant of Abbas, not an Abyssinian.
(4) See Major Ouseley's translation.
Nehrun, Nirun by El Edrissi, and Birun by Persian authors, because in that language there is very little difference between the letters B and N. The whole country of Nedheh, or Nehrown, from its capital in former times, is called Nehrwun or Behrwun, in the Ayin-Acheri; but it is omitted in the English translation, owing probably to some defect in the manuscripts in that part. Be this as it may, where we read Pergunnahs separate in the printed copy (4), there is in the original Nehrwun-na-Chand, the districts of Nehrwun, and Chand. The latter is called Chandu of Bacar by Abul-Fazil in another place (5), and Sandur by El-Edrissi. The famous port of Lebri or Lebrahi-bunder is thus called, because it is in the country of Lebreh; whilst another port, on the eastern branch, is denominated, from a similar circumstance, Sehri, or Sehrahi-bunder. It is called Sehberi by Otter, and is situated to the westward of an arm of the Indus, which forms there a spacious lake, in some places seven or eight miles broad, and is noticed by Alexander's historians. It is well known to modern travellers, and pilgrims; and Sehri-bunder at present is always called Bussah-bunder. This saltwater lake or bay, (for its entrance is pretty broad,) was by the Greeks called Saronis (6), and Eirinos, probably for Seirinos, from Sehrwun or Sehrun in a derivative form, as Lebbrun from Lebr or Lebreh. It is called Eirinos by Arrian in his Periplus of the Erythrean Sea; and he says that it is hardly discernible at sea; and this is the reason why it is not noticed by modern navigators: but it is well known to travellers, who in general are pilgrims, going to worship at Hinglaz, near Cape Moran, the.

(4) Ayin-Acheri vol. 2. Tukseem Jumma p. 97, 100 and 103.
(6) Plutarch. de flum.
Hindu name of which is Mudán, wherein the letter D has a mixt sound between D and R, and signifies a head land (1.). The entrance is said to be about two cos broad, or three miles and a half. From Busah-bunder, to Abád, in a N. W. direction, they reckon twelve cos. It is upon the western bank of the main branch of the Indus, and is called Hábásh in the history of Mahmood, the son of Schéereghin, and erroneously Ebját by Abul-Feda, who calls it also Mow, which in Hind implies a mart, or place remarkable for some manufactures, or peculiar traffic. This lake or bay communicates with the main branch of the Indus, called Rishád and Díshád, through an arm of the river; and the point of separation is near a place called Poehyárt, supposed to be either 16, or 20 miles from the sea.

This lake communicates with the sea, through two openings, or mouths: the largest of which is close to Busah-bunder, and the other to the east is very small. East of it, is a small place called Lac-puat-bunder in Cach'ha, which owes its origin to king Lac-pati, the grand father of the present Raja of Cach'ha. These two openings answer to two inlets, noticed by Major Rennell, under the names of Warrel, and Puckár, for Pokyári; thus called from the place of that name, situated where it branches out. The appellation of Warrel is unknown to the natives consulted by me, and they suppose, that it might have been occasionally so called, from being relented to by the pirates of the Warrel tribe.

(1.) A legendary tale has been adapted to it, as usual; which is that the head of Ganésá fell there. Hence it is called Ganésá-mudá, the head, or scull of Ganésá; and a few miles inland, is a place of worship, called Muda-cátá Ganésá, where it is supposed to have fallen.
Pilgrims, after having worshipped at Dwärca, between Baté and point Jigat, cross the gulf of Cach'ha, land at a place called Mosca-Mudai, in a small island, at the mouth of a river or creek. The mountains end at a considerable distance, and in the N. E. To the westward is a point of land, which I take to be that called Maffada in old maps; and Mosca seems to be the place called Ajjarpur in modern maps. From thence, to that large branch of the Indus, called Bányâni, or Aurungabunder, they reckon three long days march upon a high sandy beach; and the road, in general, is several miles from the sea. Two short days from Mosca-Mudai is a small river, supposed by some to be an arm of the Indus, which branches out above Schwan. They then proceed to Lacpat-bunder, and cross a small arm of the sea; and then, in their way to Buslah, they cross in a boat the mouth of the salt water lake, and proceed to Ghédâ or Ghaindâ, about a mile from the sea, and on the eastern bank of the Bányâni, which they consider as the main stream of the Indus, called Meran in the dialect of Cach'ha. Ghédâ or Ghaindâ, may be pronounced Gherá and Ghainrá. It is a sacred spot, but there is no place of worship, dedicated to Cotísvalida-Mahá-deva, or with ten millions of Phalli. The Musulmans worship there the tomb of a saint of their own; and from this place, the branch of the Indus is also called Cherá or Ghorá. Then they go to Shah-bunder, either by the way of Abád, or Pekeyá: and as Shah-bunder is now the seat of government, Hindu pilgrims in general call it Thathá.

They all insist, that, between Mosca-Mudai and Ghaindá, there are only three creeks, inlets or rivers; but, as they travelled several miles from the sea, they acknowledge, that there may be a few more, but
which do not go far inland. The road is upon a flat ridge, several miles broad in some places, and considerably higher than the country; and a pilgrim told me, that he had been informed, that there was an arm of the Indus running parallel to it, but that he did not see it. The whole ridge was probably thrown up by the sea, and is covered with a shrub called Luni in that country, Fihu on the banks of the Ganges, and Ghezz in Persia, at least in that dialect of it, which is used about Candahar and Ghazni. Hence it is probable, that the eastern branch of the Indus is called by Ptolemy Loni-bare, from that circumstance.

It is three or four feet high, and delights in very sandy and low places. Its stalk is very crooked, but its branches, and leaves, are somewhat like those of the cypress (1).

The various branches of the Indus, according to the best information I could procure, stand thus. First, the small river before mentioned, but which is not reckoned as a mouth of the Indus: it is called Asfa, from a place of worship, or rather consecrated spot, of that name. The second, called Lac-pot, or Pokyari, and Puckar, in a map by Major Rennell. The third, Bustah-bunder, answering to Warrel. The fourth, Banyani, Ghausda or Gorah. Kaar is the fifth; then follows the Jamna, which is the Hijjamany of Major Rennell. The seventh is Rishad, or Doshad, called also Devol. The eighth is the Jowa, written Juhoo in the maps, with a little village to the west, called Nowa-bunder. The information which I was able to procure does not go beyond the Jowa, except concerning a small branch in the track of the pilgrims, within a few miles of Cranchi or Crachi, and which, they say, falls either into that harbour, or into the sea very near it. According to Father Monsen-

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(1) It is the Tamarix Indica Kan.
rat, who wrote above 200 years ago, it falls into the harbour (1). Through
this branch, not now navigable, Nearchus's fleet failed. Its entrance
was obstructed by a bar, on which the sea broke with violence. They
cut through it, and entered the harbour of Coreless, which is a corruption
from Cárachi, Cráchi or Cranchi. It is more generally called Rámbágh.
The town and fort are several miles inland, and the place is called the
fort of Ram by Frazer, in his history of Nadir-shah. This account
of the mouths of the Indus, has a great 'agreement' with the early maps
by Major Rennell, but none with his last.

When the Greeks failed within sight of the land, they coasted along
the Delta, as far as the point of land before mentioned; and then
crossed the gulf of Cachi'ha, or Cantha, thus called from a famous town
of that name, still existing. This head land is particularly noticed by
the author of the Periplus (2). The Musulmans, bolder, crossed from
the western mouth of the Indus, to an island called Avicama, which is a
corruption for Aucu-mandal, a district near Dwáracá. (3).

The country of Sehreh extends, toward the east, no further than Lac-
put-bunder, on the sea shore; and there begins the country, called formerly,
in the Purán'as, Su-rāshtra or Surāsh, but now Gurjara-Rāshtra,
or the kingdom of the Gurjjaras. This compound is pronounced Gurj-
jar-Rāsh'ra, Gurjja-Rāshtra, Gárja-rāsh, and more generally Guj-rāsh and Guj-rāt'. This is the kingdom of Tæsariuslus, conquered by Menan-
der, according to Strabo. Renaudot's two Musulman travellers,

(1) The original M. S. S. of Monserrat's travels is in my possession. He speaks here
from report only, and he accompanied the Emperor Aqbar in his expedition to Cabul.

(2) Arrian. Periplus p. 23.

(3) See the Nubian Geographer, p. 60.
in the ninth century, take notice of the country of Haraz or Geraz, called in the original M. S. S. Giourz, or Gourz; for they used to write formerly Giuzerat for Guzerat. His country was situated upon a promontory, or in a Peninsula, and there were many camels, and other cattle. He was a great enemy to the Arabs, and no prince had a greater aversion to the religion of Muhammad, and he was at that time at war with the Bala-Rāya. The Hindi name of the Peninsula is Gurjara, and Gurjar-Rāṣṭra signifies the kingdom of Gurjara. The whole country, from the Indus to Dāman, is called Su-Rāṣṭra, its inhabitants Su-Rāṣṭrān, from which Ptolemy has made Syraṣṭrene, which is now pronounced Soret and Surāt. Its metropolis, at a remote period, was the ancient city of Teja in Cach'ha, noticed in Major-Rennell's map. Tradition says, that it was founded by an ancient king, called Teja or Teja-carna. There were three brothers descended from Icshwacu, Puru, Buja, or Boj, and Teja: the two first are noticed in the Purāṇas, in the prophetic chapters, where Puru is generally called Puru-Cach'ha, and the other Buja-Cach'ha.

The Rājas of Cach'ha boast of their independence; and pretend that, since the beginning of the world, they have never been conquered, and that once they ruled all over Gujja-rāṣṭra. They have forgot the conquest of their country by Menander, which is well attested; for unquestionable vestiges of it remained in the second century, such as temples, altars, fortified camps, and very large wells of masonry, with many coins of Menander and Apollodotus; and these monuments were found as far south as Baroach. (1) Plutarch (2) says, that the Hyphasis,

(2) Plutarch, de flum. v. Hyphasis.
or Beihah falls into this lake or bay, and thence into the sea. Philostratus, in his life of Apollonius, affirms, that this river falls into the sea; through a distinct mouth. This certainly could never be the case according to our ideas; for there is an uninterrupted range of mountains, reaching from Dilli and Agra to Bacar on the Indus. But it might be otherwise according to the fanciful notions of the Hindus. We have a similar instance in the Gangetic provinces, with regard to the Jumna and Sarasvati; which fall into the Ganges at Allahabad, and the three rivers flow conjointly, but without mixing their waters, as far as Tribeni, near Nyaserah, above Hoogly; where they divide again; and the Jumna, called in Bengal Jubunâ, goes to the left, and falls into the sea, in the bay or river of Roynungul. The waters of each river may easily be known; for those of the Jumna are of an azure colour; those of the Sarasvati white; whilst those of the Gangâ have a muddy, or yellowish tinge. These appearances, which are owing to various circumstances, such as the depth of the river in some places, its shallowness in others, the reflection of the clouds, or of the sky, are thus accounted for by Hindus in their own way. Patâlê, Patalenê, called also Pathâla, seems to derive its name from a famous place of worship, dedicated to a form of the deity with the title of Pat'hâ, which, in Hindi, signifies youthful; and from Pathâ comes Pathâla, as Bengali from Benga. It is one day's march to the south of That'hâ, and two to the north of Shah-bunder; and not far from the western bank of the Indus. The Musulmans took possession of it, about five or six hundred years ago, according to tradition; and there lies entombed one of their saints, called Peer-Pathâ, or the youthful saint. This place is of course resorted to, both by Musulmans and Hindus; but the latter pay their vows only, at a distance, to their own deity. It is on the site of Bralminabad.
called also Māñhāwar (and Māhaurā by Persian authors). Bacar is also called Māñhāwar: but its true name is Bānhawār, the Binnagara of Ptolemy, and the same I believe, which is called Panæoura by Stephanus of Byzantium, and Bāhaurā or Bahur by Persian authors (1); situated in lat. 27° 47', as the lower Mansurāis in lat. 24° 0' North. It was afterward called Mansura, which is also the name of another city, lower down the Indus, one day's march from Māñhāwar, and three from Shah-bunder; the real and original town of Daibul or Devel, which last was three days from the sea. The lower Mansoura is now Thathā.

II.

It is asserted in India, that the Māhrātās are foreigners; and this they themselves acknowledge. The Rānas of Udaya-pura, and their tribe, who are related to the Māhrātās, boast of it; and say, that they are descended from Nushīrvān. The Parsis in India fix the time of their emigration in the time of Abu-Becr, who reigned only two years, in 632 and 633. That several emigrations from Persia took place, at different periods, in consequence of the fanatic zeal of the Muslemans, and their persecuting spirit, cannot be doubted; but the emigration of the children of Nushīrvān is the most ancient. Some of these emigrants retained their ancient religion, and are called Parsis; others turned Hindus, and are called Rānas and Māhrātās. Some afterwards adopted the religion of Muhammad, and are called in the Peninsula Nevetehs, new men or converts. Though they all agree, that they came from

(1) See Abul Feda, in the first vol. of Thevenot's collection. &c.
Persia, and are the descendants of Nushirvan, yet there are various accounts, concerning the time of their emigration, the manner in which it was effected, and the number of the emigrants. There were probably several emigrations; the memory of which has been preserved only by tradition; and there have been two powerful princes of Persia, called Nushirvan; but we are not told, which of them is meant in these traditions. As they all agree, that these emigrations are posterior to the time of Muhammad, we may infer that they are descendants of Khosru-Perviz, who was also surnamed Nushirvan. This last was the grandson of the great or first Nushirvan; and, in either case, they are certainly the descendants of the latter also: but in my opinion, the first emigrants were the sons of Khosru-Perviz, and the great grandsons of the great Nushirvan. Abul-Fazil is the first Persian author, who took notice of these emigrations, on the authority, it seems, of traditions, and perhaps written records, in the family of the princes of Udaya-pur. There are also in the Peninsula written accounts, none of which I have yet seen; but I have conversed with several well informed men, and of great respectability, who had perused them. They were also seen by the late Nawab Ali-Ibrahim-Khan, first magistrate of Benares; and who, about 25 years ago, wrote a short Persian account on that subject, which is now in the possession of his son, who lent it to me. This illustrious descent of the Rana of Udaya-pur is noticed by Dr. Hunter (1), and the origin of the Peshwâs from these princes, and of course from Nushirvan, is amply detailed by Bernoulli in his third volume. The descent of the Parsis in India, from the same source, is related by Mandelslo and other travellers.

(1) Asiatic Res. v. 6, p. 8.
The origin of the Mahrâtás is also noticed in the Scanda-purâna, in the section of the Sabyâdri, or mountains of Sahya, for thus the ghats are denominated in Sanscrit, and Sahyâ or Sâkyân, on the Malabar Coast. Unfortunately, the second part of this section, in which the origin of the Mahrâtás was inserted, is so very scarce, that it is supposed to have entirely disappeared, and to have been destroyed by them; as the account, given of their origin, was by no means a very honourable one. With the destruction of this part only of the Hindu sacred books, they can fairly be taxed; and the Hindus are, on the contrary, under the greatest obligations to them, for the preservation of the rest. Wherever the Mahrâtás go, they buy all Sanscrit books indiscriminately, and give any price for them; so much so, as to render them very scarce in every country, but their own. Be this as it may, it is affirmed, that they have destroyed the second part of this section, the contents of which are yet by no means forgotten. There are still living many persons, both respectable and well informed, who well remember having read that unlucky paragraph. For this reason, they are branded with the appellation of Mléch'has or barbarians, by those who have suffered from their tyrannical and cruel behaviour; which, for a long time past, is at least equal to that of any foreign tribe, that ever invaded India, with regard to extortions, plunder, and other acts of cruelty.

Three different dates are given of this emigration; the first in the time of Abu-BeCr, in the years 631 and 632; the second in the year 651, after the defeat and death of Yezdejird; and the last, when the descendants of Abbas, the uncle of Muhammed, began to prevail in Persia, about the year 749: and these are probably three different emigrations. The last has been adopted by the late Nawab Alt-ibrahim-khan. According to some, a prince of the royal fa-
mily, in the province of Lar or Laristan, embarked with 18,000 of his subjects, and landed, at three different places, near Surat, and in the gulf of Cambâr. This prince was a son of Nushîrvân; and the emigration took place in consequence of a violent persecution from Abu-Becr.

Another account states, that they were all secretly conveyed on board ships, and thus committed to the sea without pilots; and they all landed safely near Surat, where they were kindly received by the king of that country. (1) These various accounts are current in the western parts of India; and there is probably some truth in every one of them.

There are some inaccuracies in these accounts; first, Abu-Becr's conquests never reached beyond Chaldea; and of course, he could not, by any means, be the cause of this emigration, during a short reign of two years. Besides, 18,000 men are certainly too great a number to come by sea; especially as it is added, that they had only seven ships. The Hindu accounts mention only eighteen individuals, including a camel, from whom a tribe of Mâhràtâs is descended. These seventeen men were flung secretly into the sea, and were drowned. Their corpses were wafted to the shores of India, and there brought to life again, some by Parâsû-Râma, and others by a magician: for the Hindus could not handle this historical event, without new modelling it, as usual, after their own way. The first emigration is asserted, in general, to have happened in the beginning of the seventh century (2). This induces me to think, that these seventeen persons were the sons of

(1) History of the East Indies, by Capt. Cope, p. 244.

(2) See Mandelslo and others.


Khosru-Perviz, called also Nushirvan, who were conveyed away privately to India, by order of their brother Shiroyeh; and having disappeared, were said, as usual in the east, to have been put to death by him. Shiroyeh has been already acquitted of the murder of his father, by the venerable and learned Ebn-Batrīk, Melchite, or orthodox Patriarch of Alexandria, who was both a divine and a learned Physician. It is acknowledged by the learned, that we cannot read too cautiously the accounts of the wars, between the Emperors of Constantinople and the kings of Persia, either by Persian or Greek historians, but more particularly the latter. Ebn-Batrīk says, that Khosru-Perviz died of the plague, in confinement; and was soon followed by Shiroyeh, his son, who died also of the plague. That the latter was a good and just prince; and that, being a Christian, he put to death his brothers, who were heathens.

The history of Khosru-Perviz has been equally misrepresented: he was certainly a great man, but of ungovernable temper; and he has been also acquitted of the murder of his own father, by respectable authors. He was either the son-in-law, or the adopted son of the Emperor Maurice, and was much affected, when he heard, that the Emperor had been basely murdered by the infamous Phocas. He resolved to revenge his death, and place Maurice's son, the lawful heir and successor, upon the throne; and for this purpose, he waged a long and bloody war. Heraclius, who succeeded Phocas, tried every means to make peace with Khosru-Perviz; but, the only answer he received, was "renounce the throne in favour of the lawful heir." Instead of which he is made to say "renounce thy crucified God." This I conceive to be impossible; as his only view, in waging war, was to replace upon the
throne a Christian. Whether he was sincere or not, is not now the question: this was at least his ostensible pretext. He never forced the Christians, in his own dominions, to renounce Christ; but he wanted them all to conform to the opinions of Nestorius, which he favoured greatly. In short, he has been supposed to have been a Christian; and certainly he had once an idea of becoming a convert: for he consulted the most respectable persons about him on that subject; but they disapproved of it, for this single reason it seems, that the Christians in general were a perfidious and faithless race. When he took Jerusalem, instead of defiling and destroying the pale of the true Cross, he sent it to his beloved Queen, who was a Christian, under the care of the venerable Zacharias, patriarch of Jerusalem. Neither can I believe, that he sold 90,000 Christians to the Jews; and that the latter bought them for no other purpose, but to put them to death next day in cold blood.

Khosru, having taken Heraclius prisoner, made peace with him, and agreed to release him, on his paying a certain sum of money. Heraclius feigned, that he could not raise that sum, unless he was allowed to go and borrow it. Khosru set him at liberty, on his pledging his word that he would return: but Heraclius never did, and employed that money in raising another army. All those calumnies were invented by Heraclius and his adherents, in order to exasperate his own subjects, against Khosru and the Persians.

But let us return to the Mahratás: According to the Pauránics, Parasú-Ráma, having extirpated the Ghéttris, and filled the earth with blood, wanted to perform a sacrifice; but could find no Brahmen to assist, on account of his being defiled with the effusion of so much human blood. As he was standing on the summit of the moun-
fains of Cucan, he spied fourteen dead bodies, stranded on the adjacent
hores below. These were the corpses of so many Mlech'chas, who had
been flung into the sea, by their enemies, in distant countries in the
west. They had been wafted by the winds, and were then in a high
flame of putrefaction. Rama recalled them to life, imparted knowledge
so, them, and conferred on them the Brâhmenical ordination, and then bid
them perform the sacrifice. From these fourteen dead men is de-
cended the Cucanâïcha tribe of Mâhrâtas; thus called, because, since
that time, they have always slain and remained in the Cucan.

There were three other individuals, whose corpses were similarly
stranded, more to the northward, toward the gulf of Cambay: and these
were brought to life again by a magician, and from them are descended
three tribes, one of which is the Chitpâwana; and the Raâs of Udaya-
pur, with the Peshwah's family, belong to it. The names of the two
other tribes I do not recollect. These are probably the seventeen sons
of Nushirvan, supposed to have been put to death by their brother
Shirovheh, and the times coincide within two or three years.

According to the Paurânic, there was also the dead body of a
camel, belonging to the fourteen brothers: but of him Parasu-Rama
took no notice. There was a magician, who wanted to perform certain
magical rites, but could find no Brâhmen, that would assist at these
nefarious ceremonies. He took some of the ribs of the camel, pronoun-
ced some powerful Ipells, and made men of them, and moreover con-
ferred on them the sacerdotal cord. From them is descended the
Cârârâ, another Mâhrâtâ tribe in the Deccan.
The Peshwa's family, of the Chitpawana, with very much to be considered as belonging to the Cucanesha tribe, since they reside also in Cucan. We read in the Ayin-Acheri, that the ancestor of the Raná family, and a descendant of Nushírván, was styled a Bráhmen, not because he was really so, but because he had been brought up by a Bráhmen (1).

This ancestor of the Ranás, meeting with no encouragement in the western parts of India, went into Berar, and at length became chief of Parnálekh. In the year of Christ 793, according to Abul-Fazíl, that city was plundered, and many of the inhabitants perished. During the confusion, Patta, called by some Banna and Rana, a descendant of our adventurer, and then an infant, was carried by his mother to the country of Meywar, and received protection from king Mandalica of the Bhil tribe. He was raised by degrees to the confidence of the king; and, after his death, he murdered the four sons of his benefactor, and usurped the throne (2). He was the founder of the dynasty called in the Puránas Vindhya-Sakti, the glory and might of the Vindhyan hills. It consisted of nine kings, who reigned altogether ninety years, during the greatest part of the ninth, and in the beginning of the tenth centuries (3). There are still some of that family in Berar, who are also called Ranás, such as the Zemindars of Māhaur (4).

It is the opinion of the Nawab Ali-Ibrahim-Khan, and of the Musulmans in general in India, that the children of Nushírván were driven out of Persia by the Abbasís, whose dynasty began in the year 749; misled probably by some latter emigration of natives from Persia. To

(3) Puránas, prophetic chapters.
this account it is generally added, that the Abbâfs sent them away privately in different ships; but none of the posterity of Nushirvan remained at that time. Firuz, the son of the last Yezdegird, after the death of his father in 651, fled to Kboten, where he was kindly received; and in 652 was acknowledged king of Persia, by Kâotsong Emperor of China, who made him captain of his body guard. Firuz died soon after, and his son Naniche was appointed to succeed him in the throne of Persia. In 683, Naniche went toward the frontiers of that country, with an army, to try his fortune; but meeting with no success, he returned to China, between the years 710 and 712, and died at Si-gan-fu. (4)

The Mahrâtâs are called Mahâ-râshbrâs in Sanscrit: Mahâ is great and illustrious, and Râshbra, synonymous with Râja-putra, implies their royal descent; and their name also indicates, that they were acknowledged to belong to the second class on their arrival in India, and of course that they were not Brâhmins. When they came into India, there was a tribe of Râshâras or Râja-putras, called Râtors in the vulgar dialects, and Orature by Pliny: there was also another tribe, called Su-Râshâra, or the illustrious royal offspring. These are called Syrâsbra, and their country Syrâsribly, by Ptolemy and others; and it is called, in the spoken dialects, Surâ and Sorâ. When our new adventurers had obtained power and influence, they assumed the superior title of Mahâ-râshâras; and by striking out such letters as become useless, when brought to the standard of the spoken dialects, we have Mahâ-râlâ, Mahrata and sometimes Mahrator, as Râtor, from Râshtra. Thus we have Surâ from Surâsbra, and Gujarâ from Gurjar-Râshira.

III.

BY SAMUEL DAVIS, ESQ.

ALBUMAZAR, an Arabian astronomer, who lived at Balkh, informs us, that "the Hindus reckoned from the flood to the Hijra 720, 634, 442, 715 days, or 3,725 years."

The astronomical rules of Brahmagupta, who lived in the 7th century, were in use in Albumazar's time (see Asiatic Researches vol. 2. p. 239) and the term of Brahma's employment in the creation, 17,664,000 years, to be deducted from the years expired of the Calpa, is a correction, which has subsequently been introduced into the Hindu Astronomy.

To find, therefore, the number of days expired from the creation, or rather, of days expired of the Calpa, to the beginning of the last yuga, we must, instead of proceeding as in vol. 2. p. 273 Asiatick Researches, proceed as follows:

<table>
<thead>
<tr>
<th>Years expired of the Calpa to the end of the Satya yuga;</th>
<th>1,970,784,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treta yuga,</td>
<td>1,296,000</td>
</tr>
<tr>
<td>Dwapar,</td>
<td>864,000</td>
</tr>
<tr>
<td>To the Cali-yuga,</td>
<td>1,972,944,000</td>
</tr>
</tbody>
</table>

As the years of a Calpa, to the days of a Calpa, so the above number of years, to the corresponding days.

It appears from Brahmagupta's treatise, which is still extant, and likewise from the Siddhanta Sircanani, the work of a later author, that
the number of Savan, or natural days, contained in a Calpa, was 1,577,916,450,000 instead of 1,577,917,828,000, as given in the Surya-Siddhánta.

In other words, the solar sidereal year, instead of containing 365 15 31 31 24”, was estimated to contain 365, 15 30 19 30”; and, therefore, we must multiply 1,577,916,450,000, by 1,972,944,000, and divide by 432,000,000; the quotient will be found to agree exactly with the number of days mentioned by Alhumazr; that is, it will be 720,634,442,715, without any fraction.

It is therefore probable, that the true reading of the passage quoted should be, “the Hindus reckon, from the creation to the Cali-yuga (or the flood) 720,634,442,715 days; and from the flood to the Hejra, 3725 years.”

It may, farther, with confidence be inferred, that M. Anquetil du Perron’s conclusion, with respect to the late introduction of the yugas, which are the component parts of the Calpa, into the Hindu astronomy, is unfounded; and that the invention of those periods, and the application of them to computations, by the Hindus, must be referred to an antiquity which has not yet been ascertained.
IV.

ACCOUNT OF THE JAINS,

COLLECTED FROM A PRIEST OF THIS SECT;

AT MUDGERI:

TRANSLATED BY CAVELLY BORIA, BRÁHMEN, FOR

MAJOR C. MACKENZIE.*

In former times, the Jains being without a Guru, or spiritual director, to guide them in a good course of life, Vṛṣabhānātha Tīrthaçar† was incarnate in this terrestrial world; and reformed or corrected their errors; and made laws, purposely designed for this sect: he took upon himself the office of Guru of the Jains. At this time, there existed five sects, viz. 1. Sānch'ya, 2. Saugata, 3. Chārváca, 4. Yôga, 5. Mímanśa.

This Guru composed several books, on the laws, customs, ceremonies and regulations of the Jain religion, from his profound knowledge, for the use and benefit of mankind.

The son of this Guru, who was called Bharata Chacraçarti, conquered the terrestrial world, with all its islands; and ruled, for a considerable time, as chief sovereign, above all other inferior princes.

* The language of this translation has been corrected; and some of the passages transposed: but without altering the sense. The orthography of Indian words has been, in general, adapted to the system of Sir William Jones; which is usually followed in the Asiatick Researches: but, in instances of modern names of places and persons, where the original term has not been known to me, I have left the translator's orthography untouched. H. T. C.

† In Preritic, Tite'havar; in Canara, Tīt'hūrū.
Before the death of the Guru, as he had placed his son Bharata-Ch accruarty in the government of the state, he appointed one of his disciples, in his own room, to guide and instruct the people of this religion, in following his instructions and laws; he gave him the sacred name of Ajita,* and departed from this world.

Since that period, the following principal Tirth'acars, or pontiffs, were incarnate in this world at different times.

1 Vrishabhanatha, 2 Ajita, 3 Sambhava, 4 Abhinandana, 5 Sumati, 6 Padmaprabha, 7 Suparnä, 8 Chandraprabha, 9 Pushpadanta, 10 Sitala, 11 Sreyansa, 12 Vasupujya, 13 Vimala, 14 Ananta, 15 Dharmä, 16 Santi, 17 Cunt'hu, 18 Ara, 19 Malli, 20 Munisuvrata, 21 Nami, 22 Nemi, 23 Parswa, 24 Vardhamana.

These were the first Gurus, or pontiffs of this religion, who, as twenty-four incarnations of their first Guru, appeared in the beginning of the present age, or Caliyuga.

Up to the beginning of the Caliyuga, the world was ruled, at twelve different times, by twelve Nara Chacravartis, or monarchs, among whom are 1 Bharata, 2 Sägara, 3 Mag'havan, 4 Sanatcumara, 5 Santi, 6 Cunt'hu, 7 Arasubhuma, 8 Jayasena, 9 Harishena, 10 Brahmedatta. These sovereigns of the world are said to have been Jains.

Besides these, nine Ardhacacravartis ruled at different times;

* The Jains at Sravana Beligala say, that Ajita did not appear as Guru, until many years after the death of the first Tirth'ara. C. M.
† Should be 7 Ara, 8 Subhuma, 9 Padma, 10 Harishena, 11 Jaya, 12 Brahmedatta. H. T. C.
their names are 1 Aswagriva 2 Tāraca, 3 Mēruca, 4 Nisunbha, 5 Caitabha, 6 Bali, 7 Praharana, 8 Rāvana, 9 Jarasandha; these were renowned by the title of Vasudevacula.*

The government of these kings was overthrown by a race distinguished by the honorable title of Pratī-vasudēva-cula viz. 1 Triprīṣhta, 2 Dwiprīṣhta, 3 Swayambhū, 4 Purushottama, 5 Purushavara, 6 Pundarīca, 7 Datta, 8 Lācshmīd'harā, 9 Nārāyana.

The title of the other inferior kings was Mandaladhīsa. These Narachacaravartīs and Ard'hachacaravartīs, wrestling the sovereignty from each other, ruled at different periods, up to the beginning of the present age.

Narachacaravartī signifies entire sovereign, ruling, without interruption, the six parts or divisions of the terrestrial world. † Ard'hachacaravartī signifies half sovereign; or who ruled three C'handas or divisions of the earth. The Mandaladhīsas were Rājās of particular divisions: these governed the world, at different periods, to the expiration of the last age.

In the beginning of this age, during the life of Vardhamāna Swāmī, who was the twenty fourth Tīrūhacar, or pontiff of the Jaina religion, there was a Mandaladhīsa, called Sreṇica Mahāraja. In his reign, the religion and people of the Jaina sect were protected; he reigned for a considerable time at Rājagṛhāpur, and departed from this world. After his death, the kings Chamundaraya, Janantaraṇa and other princes (nine Chōlarus and nine Ballōl†) governed the dominions of Hin-

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* This designation belongs to those named in the subsequent list. H. T. C.
† The six C'handas of Bharata varsha.
‡ The Ballōls or Ballhars, as Sovereigns or Emperors of India, are mentioned in the relation of two Mahometian travellers translated by Renaudot. C. M.
duṣṭan, to the time of Bījjalārāya, who ruled with renown in the city of Calyāna. Afterward, the Daśhin of Hindustan was conquered by the Śādāprāmāṇī, * or those who receive and admit the authority of the Vīdas. Next, the kingdom was ruled by Pratāp-Ruḍra, Rājā of Vīrangall; and, after his death, by the kings of Bījaynagar, called Rāyil; till the time of Cṛṣṭhā-Rāya and Rāma-Rāya; from which period, the Daśhin fell under different Muslim governments.

The Jains are divided into four classes or castes, in like manner as the followers of the Vīdas, viz. Brāhmens, Cśhatris, Vaiśyas, and Śūdras; the Brāhmens are the priests, or ministers of religion, for the other three castes; their duty is to study the Purāṇas and Śāstras, but they have no Vīdas. However, they have the Āgama Śāstra, treating of prayers and other religious duties. They worship the fire, in the ceremony of marriage, and in that of initiation (Upanayana).† The Jains observe the time of mourning for their deceased relations, according to their castes, as follows: An ascetic or Yati should mourn for the death of his relations one minute; Brāhmens are to mourn ten days; Cśhatris, five; Vaiśyas, twelve; Śūdras, fifteen. Their lower or inferior cast consists of the Pariyas or Chândalas.

There are four orders of priests among the Jains, as among Hindus in general, 1 Brahmacāri or student, 2 Grīhaśṭha or householder, 3 Vanaprastha or hermit, 4 Bhīṣṭhe or mendicant.

There are sixteen ceremonies, which the Jains, as well as the followers of the Vīdas, observe. Among which are 1 (Garbādhana) the ceremony at the consummation of a marriage, 2 (Simant) adorning a

* So the Jains affect to call the followers of the Vīdas, as believing on hearsay, what they cannot know, or demonstrate to be true, from the evidence of their senses. C. M.

† This must arise from employing, at those ceremonies, Brāhmens of the orthodox sect. The Jains, themselves, do not appear to worship fire. H. T. C.
married woman's head with flowers, when she is six months gone with child, 3 (Jātacarṇa) ceremony on the birth of a child, 4 (Nāmacarṇa) on naming a child, 5 (Aṇnaprāśana) when, at six months old, or within a year, the child is weaned, or first fed with other sustenance than his mother's milk, 6 Boring the ear, shaving the head, and placing the sacred thread round his neck, 7 (Vivāha) the first marriage, or rather betrothing, 8 (Sāstrāhhasa) the ceremony observed when the young lads begin to read the Sāstras, at the age of five years, five months and five days. 9 They also observe other ceremonies, together with those of funerals, &c. &c. &c.

They perform the ceremony of Upanāyana, or initiation, for a boy, between five and nine years of age; which is the period when children begin to study the books of the law. A student, till he is married, should tie only a thread round his loins, with a rag to cover his nakedness: he should carry constantly in his hand a small staff. This is practised till his wedding-day; when, as soon as he is married, he attains the second rank, or that of householder: then he may dress properly at his pleasure; and should now endeavour, by labour, service or trade, to provide for, and subsist his family: he should act in all respects agreeably to the instructions of his preceptor. Besides these duties, there are six particularly assigned, to be performed in the station of householder, as follows: 1 Worshipping God; or the images of the ancient sages. 2 Venerating spiritual parents. 3 Studying or reading their holy books. 4 (Tapasyā) internal or mental devotion, abstracted from all thoughts, but that of the deity. 5 Making and fulfilling of vows for the attainment of wishes. 6 Giving to the poor.

There are three classes of Yatis, or ascetics, among the Jains, viz. Anuvrata, Mahāvrata, Nirvāna. To attain the rank of Anuvrata, one
must forfake his family, entirely cutting off his hair, throwing away the sacred thread, holding in his hand a bundle of peacock’s feathers, and an earthen pot (Camandālu), and wearing only tawny coloured clothes; he must reside for some time in one of their temples. He next proceeds to the second rank Mahāvrata; when, totally abandoning any degree of elegance in his dress, he uses only a rag to cover his nakedness, as a Brahmachāri: he still retains the fan and pot; he must not have the head with razors, but employs his disciples to pull out the hair by the roots. * On the day, on which this operation is performed, he abstains from food; at other times he eats only once, daily, of rice put in the palm of his hand. Having, for a considerable time, remained in this state of probation, he attains the third degree of Nirvāna; he then lays aside even rags, and, being quite naked, he eats, once every second day, of rice, put by others in the palm of his hand; carrying about with him the clay pot and a bundle of peacock feathers: it is the business of his disciples to pull out his hairs; and he is not to walk, or move about after the sun sets. He now is called by the dignified title of Nirvāna; and the Jains worship him as God of their tribe, in like manner as the images, which they worship in their temples, of their ancient Nirvāṇa or Gurus. Yet they say, that these are not the likeness of God; "because no one knows God, or has seen his likeness, that he should be able to describe him." However, they adore these images of their Nirvāṇa-nāth as Gods.

Agreeably to their laws, the Jains ought to make three ablutions daily, in the morning, afternoon and evening. In the change and vicissitudes of all things, that degree of strictness is omitted, and they now

* To the effects of this operation, they attribute the appearance on the heads of the images of their Gurus, which Europeans suppose to represent curly or wosly hair. C. M.
wash only once a day before they eat: generally they eat their food on
leaves, and sometimes in brass vessels; but that is not practised in this
country.

The Cshatris, Vaisyas, and Sudras, among the Jains, may eat vi\textsc{cula}s
dressed by Jain Brahmens; but Brahmens never eat food prepared by
any but their own tribe.

"To abstain from slaughter is the highest perfection; to kill any
living creature is sin." Hence the Jains abstain from food after sun-set,
left sin be incurred by depriving any animal, even the minutest insect,
of its life, in their food; for the same reason, they never drink water
without straining it through cloth.

The principal tenets of their religion, translated from a stanza of their
books, follows: "The Jains should abstain from the following things,
viz. eating at night; slaying any animal; eating the fruit of those trees
that give milk, pumpkins, young bambu plants; tasting honey, flesh;
taking the wealth of others; taking by force a married woman;
eating flowers, butter, cheese; and worshipping the Gods of other
religions. To abandon entirely the abovementioned, is to be a proper
Jain." The Jains (even the young lads) never taste honey, as it would
occasion expulsion from their cast. They never taste intoxicating li-
quors, nor any other forbidden drink.

A man, who neglects to observe due precautions, that no living
creature be exposed to danger, from the following five domestic occupa-
ations, * will not be admitted to the sacred presence of God. 1 In

* See Menu 3 v. 68. The same notion occurs there; but the orthodox have sacraments to
expiate the involuntary sin. The Jains, not admitting the efficiency of religious acts, are con-
tent to use precautions to avoid the sin. H. T. C.
splitting firewood, 2 forming the floor, and smearing it with cowdung, 3 cleaning the fire place, 4 straining water, 5 sweeping the house. When about to perform these offices, he should first be careful, that there be no insect: for it a mortal sin to hurt any living being.

The women should marry before their monthly courses appear; though, owing to changes, and particularly, their poverty and depression, they are now obliged to put off this ceremony till long after their proper age, for want of money to defray the expense. When a woman is unclean, she must stay at a distance from her relations, in unchanged clothes, for four days. On the morning of the fifth day, she is permitted to mix with her family, after ablution.

A Jain woman never marries but once; and, if the husband dies when she is young, she must remain a widow as long as she lives, being forbidden to wear ornaments or delicate apparel, or to use nice food. In the western quarter, towards Saondha, Caodyal, &c. when the husband departs from the world, the widow's head is shaved, in like manner as the Brahmen widows of other countries; but this custom has gone out of use in this country for a considerable time: a widow never dresses elegantly; and is not allowed to wear glass rings, or the Mangalasutra (an ornament on the wedding day, tied round the neck of the bride by the husband), nor to use the yellow and red colours or paint, by which married women are particularly distinguished. While the husband lives, they may wear all ornaments allowed by the law: opulent people of this tribe are still permitted to dress like other Hindus, in all kind of costly apparel suited to their station.

When a man dies, they burn the corpse, and throw the ashes into water; the rich cast the ashes into rivers. They never perform other ob-
sequies, as their law says "the spirit is separate or distinct from the body, which is composed of five elements; when, therefore, the corpse is burnt, the several parts, which composed it, return to their former state: consequently, to the deceased, no ceremony is due." After death, as nothing of him remains, therefore they omit to perform the monthly and annual ceremonies, which other Hindus observe on this occasion; and they give these reasons in vindication, "A man should feed himself with the best food, while he lives in this world, as his body never returns after it is burnt."

They further say that the foolish people of other tribes, being deficient in sacred knowledge, spend money in vain, on account of deceased relations: for how can a dead man feel satisfaction in ceremonies, and in the feeding of others? "even a lamp no longer gives light by pouring more oil into it, after its flame is once extinguished." Therefore it is vain to make feasts and ceremonies for the dead; and, if it be wished to please relations, it is best to do so while they are yet living. "what a man drinketh, giveth, and eateth in this world, is of advantage to him, but he carrieth nothing with him at his end."

"A man of sense should believe only what he seeth with his own eyes; and should never believe what he heareth from others." The Jains do not (like the followers of the Vedas) believe, that this world exists by the supreme power of God; for they say, that the world is eternal, and that its changes are natural. They deny, that the world is wholly subject to destruction, for all things are born by the power of nature; God only is exempt from Carma, or the frailties and inconveniences of nature.

As the Jains profess, not to put faith in oral testimony, and only believe in what is perceptible to their own organs of sense; there-
fore, they do not believe, that God is in the heavens, above, "because no one ever saw him," and they deem it impossible for others to see him; but they believe in their Tirthakaras, as their ancestors have seen and given a full description of the first prophet or Guru, who attained the rapture of Nirvana by his extraordinary perfections and actions, to the satisfaction of mankind down to the present age. Since his time, they have images of several Gurus, who succeeded him, and were incarnate as protectors of their religion. These naked images they worship in their temples with all due ceremonies; they consider them as Gods, or rather as representatives of God, whom they describe as follows. "He has a likeness, and no likeness; he may be compared to an image of crystal: He has eight good qualities, and is exempt from eight evil qualities. He is all wise; all seeing; the father, or the origin of all; enjoying eternal bliss; without name, without relation, or beginning; infinite; indescribable." The eight evil qualities, from which the nature of God is exempt, are ignorance, mental blindness, pain incident to nature. The distinction of name, of tribe, delusion, mortality, dependence. He who possesses these good qualities, and has overcome these evils, or is superior to them, is the God of the Jains, or Jinaśwara, being incarnate in the shape or body of one of their Gurus or Tirthakaras. Therefore, the Jains worship the images of their Gurus, as the means of attaining the following stations: 1 (Sāloca), a station, whence God is beheld at a distance; 2 (Samiṭa) one, in the presence of, or near, God; 3 (Sārupa) similarity to God; 4 (Sayoga) union with God. According to these several gradations, he belongs either to the order of 1st (Grihaśātra) a householder; 2dly (Anuvrata) the lowest rank of ascetics; 3dly (Mahāśrata) the second; or 4thly (Nirvana) the highest.
But a bad man, who leads an evil course of life, in contradiction to their sacred laws, departs at his end to hell, or Naraka.

The Jains of this country never follow any other trade than merchandise. They wear a cloth round the loins, a turban on the head, and a jacket to cover the body; and put a mark with sandal powder on the middle of their foreheads: some have a small circlet with red powder, in the center of the sandal mark, by way of further decoration.

The following is the formula used by the Jains of the Carnatic, on beginning to perform their ceremonies.

"Now, in the holy religion of Adi-Brahman, of the philosopher who was created by the supreme power of God; and in the center of the three worlds, in the central world, and in the island of Jambudwipa (in which appears the renowned Jambū tree); Southward of the great mountain of Mahā-Mēru, in the land of Bharat, on the good soil of the renowned division of Carnātaka-Dēsa, in the village or town of ——, and in the —— part or quarter of the present age of Cali-yuga; and it being now within the fifth division of time; according to the Saca of Rājā Vicramārca (as accepted by many great and excellent people, who observe the gracious laws,) and in the present year of Śālivahana, and in the present year of the cycle —— month of —— fortnight of —— and on this holy day (including also weeks, stars, signs, hours and minutes) I now begin this &c. &c. &c."

The preliminary form of addressing letters by the Jains, to one another, is as follows viz.

"To him, who possesses all good qualities, who performs all charities (or beflows alms), according to the laws, who observes the rules
of the Jains, who has zeal to repair the Jain temples, who perseveres in observing the ceremonies of Ashtami and Chaturdasi (8th and 14th of each half month); he who purifies his head by the drops of the sandal water, in which the images of the Jinas are bathed, to such I bow my head &c. &c."

As the Brahmins, who follow the Vedas, fast on the day called Ecadasi (11th of each fortnight); in like manner the Jains fast on the 8th and 14th days (Ashtami and Chaturdasi), twice a fortnight: they also worship the serpent Nag, on the festival of Anantachaturdasi, in like manner as other Hindus, and tie over their shoulders a red thread.

At this time, the Jains have four Mat'hadhipas, or chief pontiffs, at the following places, 1 Penugonda or Pennacunda, 2 Canchi or Conjeveram, 3 Collapur, 4 Delhi.

Their Sannyasis, for a long time back, have resided in these places, with power over all those professing their religion; these pontiffs teach their laws, duties and customs; and, if they observe any irregularities among their flocks, punish them according to the nature of the offence.

The Jains intermarry with women of other families or Gotras, and eat with the disciples of their several priests and castes. But, though the Jains of all countries are of the same religion, they should not employ the Gurus of one Mat'ha or college, to attend funerals and perform the ceremonies of another; but they are to behave with respect and civility to them, on account of their profession and rank.

Sravana-Belgola is the principal residence of the Jain Gurus: even the Jains below the Ghats consider it as the chief place; but, with the permission of the head pontiff, as it is too distant from them, his disci-
ples established three subordinate Gurus, in three different places, below the western Ghâts, at Mooka, Beedery, Carocollom, and Soor. Jain Sannyasis now reside in these places, to attend to the laws and ceremonies of their religion.

There is a famous image, of eighteen times the height of man, upon a rock near Belligola, named GOMATESWAR Swami.*

In the books of the Jains, it is mentioned that there was formerly a golden image, of 500 times man's height, at Padmanabh-pur, which was inundated by the sea; and they believe, that it can still be sometimes seen in the water.

They generally account modestly for all their tenets, and conduct themselves with propriety; and never assert, that their bodies are eternal, and that there is no God; nor do they, like the Baudhists, say: "After death there is no pain in the flesh or feeling: since it feels not pain, nor death, what harm is there in feeding upon it, when it is necessary to procure health and strength."

NOTICES OF THE JAINES,
RECEIVED FROM CHARUCIRTI ACHARYA,
THEIR CHIEF PONTIFF AT BELLIGOLA IN MYSORE.

"For the information of mankind, be it known, that the foundation of ages or times is countless: that the origin of Carma or passion is inconceivable; for the origin of the soul or spirit is too ancient to be

* This image is represented in the annexed drawing. At Kurcul near Muggle, there is also a gigantic image of Gomateswar. C. M.
Drawings of the Gigantic Statue of Gomut Iswar at Billacull or Bellagolla taken in December 1801

View taken in the Court below

View taken from the opposite Terrace above

The feet of the Statue is 20 common feet long: hence the height of the Statue is estimated at 54 feet at least. The figure represented at  is designed to show the comparative height of a man standing on the opposite terrace near the Statue.
known: therefore, we ought to believe, that human kind is ignorant of the true knowledge of the origin of things, which is known only to the Almighty or Adiśwara, whose state is without beginning or end; who has obtained eternal victory over all the frailties of nature and worldly affections.

There are two great divisions of time or ages, established in the universe by God; called Avaśarpinī, and Usarpinī: each of them are reckoned at ten Čroś of Čroś of Sāgarōpamas.* Avaśarpinī is divided into six portions, which are named 1 Atiduc'hamā, 2 Duc'hamā, 3 Duc'hamā Suchamā, 4 Suchamā Duc'hamā, 5 Suchamā Suchamā, 6 Suchamā. The second age, Avaśarpinī, is also divided into six parts, by name 1 Suchamā, 2 Suchamā Suchamā, 3 Suchamā Duc'hamā, 4 Duc'hamā Suchamā, 5 Duc'hamā, 6 Atiduc'hamā. These two grand ages, eras, or periods, as well as their divisions, revolve for ever in the universe, like the course of the fortnights, and the increase and decrease of the moon, in the regions frequented by mankind. The number of these regions is a hundred and seventy; ten of which are distinguished by the names of five Bharatas, and five Airāvatās. These divisions are particularly explained in the book called Trilōcatacata.

Among the ages abovenamed, the revolution of four Čroś of Čroś of Sāgarōpamas was assigned to the first or Suchamā. During that age, men subsisted on the produce of ten different Calpavṛtchās or celestial trees, called Bhōjanāṅga, Vāstranga, Bhūshānāṅga, Mālāṅga, Grēṅga, Raṣṭhanāṅga, Jyōtiranga, Tūryāṅga and Bhājanāṅga. Thus men used to subsist on the spontaneous produce of the trees; and kings ruled not the earth; all were abundantly happy; and the people of that age were dif-

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* Oceans of years. This measure of time will be subsequently explained, H. T. C.
tunguished by the name *Uttama-bhóga-bhumi-pravartacas*, supremely happy inhabitants of the earth.

On the commencement of the second age, *Suchamá Suchamá*, which lasted for three *Crórs* of *Crórs* of *Ságarópama*, the miraculous gifts of the heavenly trees were less than in the former age, though they still supplied the wants of mankind and their subsistence; but the men of that age were inferior in complexion, stature, strength, and longevity: hence they were called *Madhyama-bhóga-bhumi-pravartacas*, moderately happy inhabitants of the earth.

This was followed by the third age, *Suchamá Duc'hamá*: its measure is two *Crórs* of *Crórs* of *Ságarópama*. During this period, the people were still more straitened in the produce of the *Calpavrśīhas*, as well as inferior in longevity, color, health and happiness: the people of this age were named *Jaghanyā-bhóga-bhumi-pravartacas*, or least happy inhabitants of the earth.

In these periods there were born, at different times, fourteen *Manus*, by name 1 *Pratisruti*, 2 *Sanmāti*, 3 *Cshémāncara*, 4 *Cshemandhara*, 5 *Srīmāncara*, 6 *Srīmandhara*, 7 *Vimalavāhana*, 8 *Chacshushmān*, 9 *Yasaswī*, 10 *Abhichandra*, 11 *Chanḍrabha*, 12 *Marudeva*, 13 *Prasannajīta* and 14 *Nābhīrāja*. The last *Manu*, having married *Marudeva*, begot a son, named *Vrīshabhanāt'ha Tīrt'hacar*.

The fourth age, called *Duc'hamá Suchamá*, is in measure 42000 years less than the amount of one *Crór* of *Crórs* of *Ságarópama*; and no miraculous fruits were produced in this age.

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* Or *Simād'hara*. 
Before the commencement of the fourth age of the Avasarpini, when the time of destruction appeared to be nearly approaching to mortals or mankind, through the disappearance of the Calpavṛśgas or celestial trees, Vṛṣabhanātha Tīrthācār was incarnate, in this world, as son of the fourteenth Menu, Nābhiraśa, at the city of Ayodhya. By his auspicious birth (at the prayer of mankind, who were distressed for food, and were dying;) and by his instructions, the knowledge of good and bad, of possible and impossible, and of the means of acquiring the advantages of earth and of heaven, was obtained. He also, arranged the various duties of mankind, and allotted to men the means of subsistence, viz. Asi the sword, Maś letters (literally ink), Cṛṣṭi agriculture, Vāṇīya commerce, Paśupāla attendance on cattle. Upon this arrangement, he became king over all mankind, and composed the four sacred books, called Prat'hamānuyoga, Caranānuyoga, Charanānuyoga, and Dravyānuyoga. Thus Vṛṣabhanātha Tīrthācār established the religion of the Jains, in its four classes, or castes, of Brāhmens, Cśatrīs, Vāṇīyas and Śūdras; and delivered the charge of those sacred books to their care. These writings becoming obsolete, and the language not being understood by the common people since that time, the meaning of the originals has been explained, in various works, in the language of different countries. He also composed several books on the sciences, for the improvement of mankind.

After he had settled and arranged laws and regulations of all kinds, mankind, from that period, began to follow his institutions, looking on him, in every respect, as equal to God; and, upon his departure from this world, to Mōśha, or the state of the Almighty, his image was venerated as Jainīswar, or the Lord of Jains: as he had early subdued, by
his wisdom all worldly affections, and was relieved from restraints and carnal tics.

Before the departure of Vṛṣabhanātha Tīrtha-cār, his wives were Asavatī and Sunandadevi; by the former he had a son, named Bharata Chacra-vartī; and by the latter Gomateswara Swāmī. The eldest, Bharata Chacra-vartī, ruled over the whole of the six divisions of the earth, and named it Bharatashētra; from that period the earth bears his name. The metropolis of this king was Ayodhya (or Oude). After he had ruled for a considerable time, he appointed his younger brother, Gomateswara Swāmī, to the government. Then abandoning the (Carma) actions or affections of mankind, he obtained the fruits of his sacred contemplation, and proceeded to Mōsha, or heavenly salvation.

Gomateswara Swāmī, after he was charged with the government, ruled for a considerable time, in a town named Padmanabh-pur; in the end, he attained (Nirvāṇa) beatitude in heaven, and departed thither. Since his death, the people worship him, in all respects, as Jineswara, or God. From that period, twenty-four Tīrtha-cārs have passed, during the age of Avasarpini, up to the end of the Dwāpara-yuga.

According to the Jains, there were born other twenty-four Tīrtha-cārs in the world, during the first age, besides the twenty-four from the birth of Vṛṣabhanātha Swāmī. The names of the Tīrtha-cārs of Atitacāla or past times, are as follow, 1 Nirmaṇa, (1) 2 Sāgara, 3

(1) Nirvāṇa, in Hemachandra's vocabulary.

To the Tirth'acars, who departed to Móṣha in the times of antiquity, the Jains pay a respectful adoration, even more assiduously, and with greater veneration, than to their Tirth'acars, who were incarnate, according to their accounts, in the age, or period of time, called Utsarpini.

In their prophecies it is said, that the following are the names of the Tirth'acars, yet to be incarnate, in the future or next Utsarpini period:

1 MAHÁPADMA, (1) 2 ŚURÁDEVA, 3 SUPÁRŚWANA, (4) 4 SWAYAMPRABHA, 5 SADÁTMABHÚTÍ, (3) 6 DEVAPUTRA, (4) 7 CULAPUTRA, (3)
8 UDANCA, (6) 9 CRUSTA, (7) 10 JAYAÇIRTI, (8) 11 MUNISUVRATA, (9) 12 ARA, 13 NEPOMPA, (10) 14 NISHCASHÁYA, 15 VIPULÁCA, 16 NIRMALLA, 17 CHITRAGUPTA, 18 SAMÁDHIGUPTA, (11) 19 SWAYAM-


Account of

bhù. 12 Anuvartaca, 13 Jaya, 14 Vijaya, 15 Malla, 16 Deva, 17 Hemachandra,

Their ancient Tirthacars, being endowed with the gift of prophecy, predicted the future succession of these Tirthacars, for the information of the world.

Thus it is truth, that time and age gradually revolve for ever; yet no decay or destruction arises hence to the universe, and its various worlds, to the earth, to spirits, and to souls; but the mortal bodies of mankind and Devatas perish, while the Vimanas* endure.

HISTORICAL AND LEGENDARY ACCOUNT
OF
BÉLLIGOLA,
COMMUNICATED BY THE HIGH PRIEST AT THAT STATION.

In ancient times, an image was at this place, self formed from earth, under the shape of Gomat Iswara Swami, which Ravana, the monarch of the Rácsbhares, worshipped, to obtain happiness. After many ages were elapsed, and on the access of the present age, a king of the southern dominions reigned, named Rachamalla. His minister of finance was named Chamunda-Raya, who was remarkably devout in the performance of the religious duties of the Jains. It was reported to him, by a travelling merchant, that there was, in the city of


* The abodes of deities of various classes.
Padmanâbh-pura, an image of Gómât Îswara Swâmî. On hearing this relation, he made a vow, before all the people, not to drink milk, until he saw the image of Gómât Îswara. When he retired from the public hall to his own apartments, he found his mother also disposed to follow the same resolution; and they both went immediately into the presence of Sinvánanda Áchârya, who was their sacred minister of religion, and acquainted him with the vow, and obtained his consent to the journey. Then setting off, with a moderate retinue of the four descriptions, (horse, foot, elephants and cars,) towards Padmanâbh-pura, he halted at this village, during a few days, for refreshment; and being informed by the inhabitants, that there was a sacred temple of the Jain worship on the summit of Chandragiri, which was founded by Chandragupta Mahâraj, he there performed the customary ceremonies and worship. As he slept there on that night, the heavenly nymph, Cushmandama appeared to him in a dream, and recommended to him to desist from his intended journey to Padmanâbh-pura, as it was too distant; and to worship another image of Gómât Îswara Swâmî, eighteen times man's height, on the mountain of Indragiri; equal for miracles to the image that was in height fifty-two fathoms at Padmanâbh-pura. To make the discovery, he was directed to shoot an arrow towards the south, and follow its flight; by this means he would discover the image, on the spot where that arrow should fall.

On the next morning, Chamundarây acted according to the advice given to him in his dream, and was extremely rejoiced at the discovery of that wonderful image. He afterwards fixed his residence on that spot for twenty years; and made the workmen cut it out into a regular shape, with the utmost accuracy of proportion in all its parts; the seve-
ral proportions of the body resembling the original likeness of Gomat Iswara Swami, in profound contemplation, to obtain Mocsha. He also caused several buildings to be constructed, as temples and other edifices, round the God. On their completion, he established the worship of the image, as God, with great ceremony and devotion, in the year of the cycle Vibhava, when 600 years were past of the Cali-Yuga.* After he had placed the image, Chamundaray granted in gift, to the God, the lands situated on all sides of the place; to the value of 19,000 pagodas, for the performance of the daily sacred ceremonies, as well as those which return periodically.

Afterwards this kingdom was ruled by several Rajas, from the time of Balalray down to Vishnu-Varadhan. In their reigns, the Jains added several buildings to the former work, and were allowed the enjoyment of the lands assigned to the God.

The successors of Sinvananda Acharya, who was Guru to Chamundaray, resided here, to manage the religious affairs of this place, and of other places of the Jain tribes. The present Guru at Belligola is the regular successor, according to the following list of Gurus, from the last of the ancient twenty-four Tirthacaras in the fourth age, who was named Vardhamananaswami, and who attained beatitude (Mocsha) 2464 years before the year of the cycle Durmati (or A.D. 1801);†

* Major Mackenzie remarks the inconsistency of this with the subsequent computation of 2464 years. The Cali-yuga is not a mode of reckoning in use among the Jains, though repeatedly mentioned in these papers. Perhaps the present or fifth age, according to their computation, may be intended. It being the fourth year after Vardhamana's demise. H. T. C.

† I have been informed by Jains in Bengal, that they reckon Vardhamana to have lived 580 years before the Era of Vicramaditya. H. T. C.
Statue dug up at Conjeveram
supposed to belong to the Jain Worship
18th August 1799
Image in the Jain Pagoda at Toomcoor
May 1800

F. Dormieux Sculp: 1806
at the time when Srenica-Maharaj, having ruled for the space of a hundred years, departed to heaven.

**Life of the Names of the Gurus, from the last Tirtha-Guru of ancient times, down to the present Guru,**

**VARDHAMANA SWAMI,**

**The 24th Tirtha-Guru of the last life.**

1. Gautama,* 2 Sudharma,† 3 Jambunath, 4 Virasen Acharya, 5 Vrishabhasen Acharya, 6 Siddhasen Acharya, 7 Virasen Acharya, 8 Sinvandan Acharya, 9 Cundacund Acharya, 10 Girdhapench Acharya, 11 Mayurapench Acharya, 12 Darasenacharya, 13 Bahusen Acharya, 14 Caliparameswar Swami, 15 Jinaseshacharya, 16 Gunabhadralcharya, 17 Akalonka Swami, 18 Veekalonka Swami, 19 Abhaya- chandra Siddhant, 20 Srutamunivatarcha, 21 Pujayapada, 22 Vidyana, 23 Jayasena, 24 Avirasena, 25 Lacshmisena- balarca, 26 Charucirtipandit Acharya, the present priest at Belligola: his age is 65; and he arrived at his present rank 30 years ago.

CHAMUNDARAY, after having established the worship of this image, became proud and elated, at placing this God, by his own authority, at

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* Meaning Vardhamana's eldest disciple, named Indrabhuti, and surnamed Gautama, because he was of that family or Gatra. H. T. C.

† Sudharma was one of Vardhamana's disciples, and the only one who has left successors. H. T. C.

‡ The disciple and successor of Jambuswami was Prabhava. The person, who furnished this list, has skipped from Sudharmas disciple to some priest who may have been his remote successor, at an interval of several hundred degrees. H. T. C.
so vast an expense of money and labour. Soon after this, when he performed, in honour of the God, the ceremony of Pancha-mārtika Snāna, (or washing the image with five liquids, milk, curds, butter, honey, and sugar;) vast quantities of these things were expended, in many hundred pots: but, through the wonderful power of the God, the liquor descended not lower than the navel, to check the pride and vanity of the worshipper. Chamundarāy, not knowing the cause, was filled with grief, that his intention was frustrated, of cleaning the image completely with this ablution. While he was in this situation, the celestial nymph Pādamāvatī, by order of God, having transformed herself into the likeness of an aged poor woman, appeared, holding in her hand the five Amrītas, in a Bèlliya-gola (or small silver pot,) for washing the statue: and signified her intention to Chamundarāy, who laughed at the absurdity of this proposal for accomplishing what it had not been in his power to effect. Out of curiosity, however, he permitted her to attempt it: when, to the great surprise of the beholders, she washed the image, with the liquor brought in the little silver vase. Chamundarāy, repenting his sinful arrogance, performed a second time, with profound respect, his ablution, on which they had formerly wasted so much valuable liquids; and washed completely the body of the image.

From that time, this place is named after the silver vase (or Bèlliya-gola) which was held in Pādamāvatī's hand. Sravana (Sramana) is the title of a Jain Sannyāsī; and, as this place is the principal residence of these Sannyāsīs, the people call it Sravana-Bèlliya-gola.

Many years after this period, a king, named Bhattavardhan, reigned at Dwaratīpattan; which the people now call generally by the name of Doragul, or Dorasamudram. It is said, that he wanted a sin-
ger. One day, as he sat with his concubine (who was of the Vaishnava sect) upon the terrace of his palace, she observed, in the public street, a Jain Sannyasī passing, who avoided conversing with any person, and was under a holy vow of abstaining from taking food in the house of any person who was lame, or deficient in any of the members of his body. Upon hearing of the vow which he had made, she asked the king, from motives of curiosity, "behold your Guru! will he at your request eat food with you?" The Rájá, not recollecting the customs of the Gurus, replied "why not? will he not come to the house of his own disciple? if he refuse at my request, I will abandon my sect, and bind myself to your command; but, if he comply, contrary to your expectation, you must conform to my sentiments." Then the Rájá, descending from the terrace, advanced to the Guru, and asked him to take food, walking, at the same time, round him, with closed hands, and pronouncing, three times successively, the following sacred form of words, according to the rules of their religion. "O Lord! reverence be to you! stay!—for Bramarayah's sake—comply!" After he had used this prayer, he took water into his hands, to give to him, with the following form. "Adoration! O Lord!—Adoration! do purify this water!" But the Swámi, without speaking, retired to the temple; where he resolved to fast that day, as an expiation for being invited to eat by a maimed man.

Bhattacharyā, following his Guru to the temple, upon inquiry was informed of its being forbidden by their law: he then explained to the Guru, what had passed between him and his beloved mistress, and earnestly intreated the priest to comply with his request; declaring, that if it were refused, he must join the other sect, whence great misfortunes would befall their religion: the Swámi replied, that he would suffer death, or any other misfortune, rather than for the king's favor do what was contrary to the law.
Upon this refusal, Bhattachardhan, agreeably to the commands of his mistress, whom he loved, joined her sect, which was that of the Vaishnavas; and, from that time, his name was changed, from Bhattachardhan, to Vishnuvardhan. This country was ruled, for many years, by his descendants. On the downfall of that dynasty of princes, their dominions were conquered by the kings of Bijayanagar.

After the Rájás of Mysore had obtained possession of this country, under the Anegondi kings, they granted lands, of the amount of 1000 pagodas annually, to the God; and of the amount of 120 pagodas, to the college of Sannyásins. While their power lasted, they protected the Jains without permitting the intolerant spirit of other sects to disturb their religious ceremonies and duties. In the reign of Chicca-Dévarājā Vadeyar, a Jain, named Annaya Chetty, constructed, at this place, the tank named Calyání.

Formerly Rámanuja, the famous Vaishnava reformer, under the encouragement of the confusion which then prevailed in the government, came hither, with the vain desire of disputing with the Jains, about their laws and religion. After his conference with them, he had it proclaimed, that he had worshipped the Jains, in their disputations on religion and law; and erected here a pillar, on which were inscribed the symbols of the Sancha and Chakra; and, cutting off a small piece of the finger of the left hand of Gomat Īswar Swámi, he departed.

Beligola is the most revered place of the Jain worship above the Gháts. Here are two mountains; one called Indragiri and the other Chandragiri: the former is situated on the north-west adjoining to the village; on its summit stands their famous image of Gomat Īswar.
Swámi, * of the height of eighteen fathoms, inclosed within a strong wall, with many small temples and other buildings. Here were, in former times, seventy-two well shaped images; of which there now remain, in good condition, only forty-two, placed in a gallery, under a portico, supported by pillars, which is carried inside, along the wall. They say, that these are images of their Tirthánacar, of the last, present and future ages. The great image, being of too great height to be covered, is in the open air; appearing like a column on the hill, when viewed as far as eight cols on all sides.

On the other hill, called Chandragiri, close to the village, are several sacred temples; there are also many temples in the town. The Sannyási resides in a Mathá within the town; where are some images of stone and metal, for his domestic worship: in other places, he employs people to perform worship to them regularly. In the government of the Mysoor Rájás, and of Haider Náyac, certain villages were granted, in Jagir, to the God and the college. There are not any families of any other principal casts, excepting Jawans, in the village of Belligola.

At this place they used to celebrate, once a year, a great festival to the God. Two months before its commencement, the head of the Math, used to send a written notice over the country, to announce the festival to all Srávacs or Jawans. On the receipt of this paper, great numbers of this sect, even from Hindustan, came to attend the ceremony, and worship the God. This festival was neglected, for six or seven years, through the oppression of the late government; and has not yet been renewed; because their lands have been resumed, and included in the lands of government.

* Plate 2.
Translation of an inscription, cut on a stone, upon the hill of Belligola, in front of the Image.

'BE GOOD FOR ALL.'

Be success to the famous Ramañuja* who is lord above the lords of Ātīthās or Sannyāsīs; who, like the mighty fire from the face of Vādāvānāla, disperses or dries up the water of the ocean of Pāshnadās or infidels; who is chief among the slaves of the Lily feet of Śṛīraṅgarāja; who allows a passage through Vicunta, ornamented with many edifices of precious stones.

In the year of the Saka 1290, † in the Cilaca year of the cycle, on Thursday, the 10th of the month of Bhādrapad, be success and glory to the honorable monarch, the sovereign and destroyer of envious princes, lord of foreign kings, whose name is Bucca-rāya. During his reign, on account of the disputes of the Jains and Bhaḍas, the principal citizens of the new city, or Hsāpattan, of Anegondi, of Pēnuṅgondā, of Cālahattī pattan, and of other places, represented to the prince the injustice committed by the Bhaḍas: he assembled a court, composed of the following people: Covila Tirumala, Peru Covila Tirumala Rayana, and other chief Āchāryas, judges, inhabitants, and other followers of the Tirumān and Tērubadī marks, and the head people or chief officers of districts, and the Vaishnavas of Tirucul and Jambavacul; in which it was determined, that there was no real cause of difference between the

* Ramañuja, the famous author of the Śrī-bhāṣya, and reformer of the Śaiva doctrine, was born A. D. 1008. The invocation to him shows, that the inscription was placed with the consent of Government. C. M.

† A. D. 1367.
Jains and Vaishnavas. The Mahārāja, putting the hands of the Jains into the hands of the Vaishnavas, ordered that the Jains be permitted to use their former and usual great drums, as well as the Calahans-nada, which had been taken away by the Bhaṭṭas; and, for the performance of this, he ordered it to be made publick, by inscriptions carved upon stones, in the Jain temples, all over the empire, that no distinction, or contradiction, appeared between the religion of the Jains and Vaishnavas: therefore the Vaishnavas should agree to protect them, while the sun and moon endure. Tērumatia, and the other chief people, then resolved, in token of their good will, that all the Jains, who are inhabitants of the different divisions of the world, should contribute annually, at the rate of one fanam for each family, to defray the ceremonies of their God at Bēligōla Tīrthā, and to repair the buildings of the Jīndlayas, or temples of Jīna.

By continuing the above yearly gift for this purpose, while the sun and moon remain, will be obtained the advantage of great reputation and grace. If any person refuse its execution, he shall go to the hell of those who betray their kings and holy religion; and he, who prevents this charity, shall incur the sin of killing a cow, or a Brahmen, on the bank of the Ganges river.

"Whoever resumes gifts, in money or lands, granted by himself or others, shall be born as an insect in dung, for sixty-thousand years."
NEAR Calyani. On arriving at Mudgiri, several appearances indicated a change in the country; viz. the style of building of the pagodas; as we here found them of the mosque kind, with domes and pillars in front; others in which the Lingam was worshipped of a large size: in the Déwal of Ramalingam, one of them was a groupe of five Lingams *, and a great number of flones were placed round the temple, covered with sculptures. At a temple of Hanumán (the only one seen since we came into the Canara country) were several sculptures, also placed round the building; in one, a God or hero carried a caco tree; another was drawing a bow; a hand, in one place, covers a horseman; and an inscription, in two columns, was surmounted by the sun, moon, Lingam, &c.

But that, which most attracted my attention, was, close to the mud wall, a round temple of blue flone, with a portico of four pillars, curiously carved and ornamented; in the portal within, facing the north, was a figure, sitting cross legged, naked, his head covered with curls, like the figure of Buddha; the nose was defaced, and a fracture run through the figure. The annexed sketch will give some idea of it.† A poor woman, near, said it was "the image of Chindeo or Jain-deo." Without, was a greater figure of the same kind, also apparently defaced.

* The five Lingams, signifying the powers of nature, united in its five component elements, are sometimes seen in this form. C. M.
† Plate 4.
Jain-Deo
at Mudgeery near Callianee
24th February 1797

Fragment of Sculptured Stone dug up at Amrapoor or Amriheeram in Guntoor 1796
and neglected: and, particularly, the several heads of snakes, which as a groupe shaded it, were mutilated. I could obtain no further information respecting it.

In consequence of notices received at Ongole, I determined to call at Amrēśvarām, to see the antiquities lately discovered there, as the place is near the banks of the Čṛṣṇa, and we could reach the place whither our tents were to be sent, early in the day. I therefore, despatched my interpreter Boria, accompanied by some Brāhmaṇs and two Sēpahis, in the evening, to Amrēśvarām, with directions to make some previous inquiries into the history of the place: and to conciliate the inhabitants; particularly the Brāhmaṇs, who are apt to be alarmed on these occasions.

In the morning, before day, we left Ibrāmpattan by moon-light, and passed along the north bank of the Čṛṣṇa. We observed, a few miles off, a dry but deep cálava, or canal, leading off from the river, probably intended for the purpose of cultivation. At day light, we were in the sandy bed of the river, which seems to be nearly two miles wide, including the islands; and contains no water at present. We ascended the shallow bank to Amrēśvarām. The temples appear to be new, and are said to have been recently built by the Chintāpělī Rājā, who has fixed his chief residence here, since Lāṣhmiṇipuratam was occupied by our troops. A high mud square wall encloses the temples and his houses; and the rest of the place is laid in regular streets, at right angles, in the same manner with his other places of Lāṣhmiṇipuratam &c. A street, going south from a gate of the temple, seems to be 200 feet wide; and an open choultry stands in the intersecion of four principal streets. I found Boria ready to receive me, attended by some Brāhmaṇs; who said, that the people here were rather surprised and alarmed, at the app-
Account of

approach of Europeans and Sepahis, until he assured them, that our object was merely to view the lately discovered ruins. We were then conducted to those remains of antiquity. We found a circular trench, about 10 feet wide, dug about 12 feet deep, into a mass of masonry, composed of bricks of 16 inches square and 4 inches thick. It is probable, that this body of masonry did not extend to a greater depth. The central area was still untouched; and a mass of rubbish was thrown outside of the ditch, which prevented any observation of its original state; but I conjecture, that the whole had, previous to its opening, formed a solid circular mound. In this ditch, a white slab lay broken, which still exhibited some figures in relief, of which Mr. Sydenham took a sketch. Against the outside of the trench, were placed three or four slabs, of the same colour, standing, but inclining inwards; on the inside, where these were uncovered, they had no figures, except where the top of one rofe above the earth. Without, some sculptures appeared, which lead me to conclude, that these sculptures were exposed on that side to view. From the inquiries of my Brâhmen, I could obtain no other account, than that this place was called Dipál-dinna, or the hill of lamps. The Râja, about a year ago, had given orders to remove a large stone, to be carried to the new pagoda, which he was building, when they discovered the brick work, which induced them to dig up the rest for the buildings. The white stones were then brought to light, and unfortunately broken; at least we could perceive few of them; and, though it was said, that some were carried into the temple, * the Brâhmen, who was admitted, had perceived only some broken pieces. The sculptured stones, observed, were as follows:

* Some of these have been discovered lately (1824) by Mr. William Brown, containing sculptures, inscriptions, &c. of which, it is probable, that copies may be procured. C. M.
A broken piece,* still lying in the ditch, or excavated foundation, on which appeared something like a Lingam, or a pillar, rising through what seemed shaped like a desk, but was probably designed for an altar; a male figure stood on the left, with its arms disposed as if pouring something on it; but, as the upper part, and what he held, were broken off, this seems doubtful. Near him stood a female, holding a Chambú, or pot, on her head, in the Hindu style. My Bráhma naturally enough concluded, that this represented a female carrying water to affix in the offering to the Lingam. The feet of two figures remained on the right, which probably had appertained to two figures in the same attitude on that side. The stone was a white marble, called by the natives Pál-ráyi, or milk stone.

Near it, stood three slabs, inclining inwards against the masonry, which had been dug out. On the side on which they were viewed, no figures were seen; and they were rough and unpolished: it is probable, that they have sculptures on the side still covered with earth; and I have already mentioned, that some designs appeared at the top of one. If the whole of the circle was faced with these slabs, it is to be regretted, that this treasure of antiquity did not fall into better hands.

On the rubbish above, near these, and belonging to some unfortunately broken, were two pieces of the same white stone; one of these seemed divided into two compartments, by a border, on which three wild hogs running were sculptured: the outline is well designed. The leg of a figure sitting, and the hind leg of a horse, appear above, remaining of the original design. Below the border, the plane was inclined to a lower border: and in the space of about 6 inches, two lines of

* Plate 42, 2.
characters were carved: on cleaning off the dust, the first line appeared very legibly. I have to regret, that the approaching heat prevented my remaining, to copy this inscription in fac-simile. Some of the characters are, however, as I believe, faithfully given in the annexed attempt; and I left a Brāhmen to transcribe the whole, but his copy was not satisfactory. In the place marked c c, some of the letters seem to resemble those of the Ceylon inscription. The other piece contained the head of a horse, and some defaced heads and prominent ornaments.

Near the gate of the temple lay a slab, grey with the crust of ages; but of the same white marble. On it, five or six figures appeared, fitting in various attitudes, on what at first sight seemed to be Lingams: but upon close examination, their seats resembled our chairs.

The most curious, and most complete piece of sculpture, we found, as we returned along the high mud wall of the temple; laid as a roof, over a small temple of Lingam, of the same materials. It represented the attack and escalade of a fortified place. The principal figure, on an elephant (with the usual attendants, the driver and the sanner,) seemed issuing orders: before him, a pedestrian figure, with a round shield, seemed prostrating himself: a graceful figure, at full length, stood close to the gate of a tower, fronting them. The tower, which was octagonal, was surmounted by a rounded roof on pillars, of the shape of an Ambari; under which an archer was represented, in the act of drawing his bow, and shooting at an assailant, who covers himself with his shield, while mounting the rampart by a ladder: another figure, from behind the rampart, appeared peeping over, and covered by some defensive

* Plate 4, b, c c, b b b.
† Ibid, d.
arms: several horse-men, and a man mounted on a bullock, seemed to support the attack. The town and rampart seem to be of stone, from the lines drawn obliquely to represent the perspective, which, however awkwardly done, was the first attempt of the kind I had observed in Indian sculpture. To whatever age this is to be attributed, we here find an escalade, defense by flanking towers, and their use, and the mode of attack and defence, illustrated by a Hindu sculpture.

When mention of these sculptures was first made to me at Ongole, it was hinted, that they contained marks of the worship of the Jains; * but nothing of the kind appeared here. Without my mentioning the subject, I found that the same idea prevailed at this place, though my Brâhmen could give me no good reason for it; and the account, which he received of the Jains, was very obscure: it was said, that they were formerly a powerful people, who contested the sway with the Brâhmens.

On the lower part of the same slab, and divided by a border containing figures of animals, were sculptured four figures of men sitting on chairs, and reclining, in attitudes different from each other, but all significant of a graceful negligence, indicating carefree ease. One of them had his hand disposed on his breast, or in the chain which hung from it; another seemed to incline to one side, leaning against his chair, with one leg and thigh thrown over the other; and wanted nothing but a hooka to be placed in his hand, to give a complete idea of that languid attitude, in which we sometimes see an Indian throw himself, when satiated with these fragrant steams that overpower and gratify the sense. The chairs were circular, of a cylindrical form, and the back forming half a circle. A number of small lines divided them longitudinally, and seemed to represent cane work. The thrones or

* A figure crofs legged has been since discovered on some of the sculptures found there. C. M.
feats, represented in other Hindu sculptures, I had never observed before with backs; so that these seem to have another origin. The figures were too small to admit of distinguishing ornaments: the head dress was round, and not raised so high as those commonly represented on stones.

On another stone, but uncertain, whether belonging to these, was represented the remains of a God, or chief, sitting on a chair, and fanned by a female, holding a chauri. It is well known, that Hindu princes, sitting in state, were generally thus attended. So Shri Krishna Rájá is described, sitting on his royal throne, attended by two beautiful women, fanning him according to royal usage.

A horse, on another stone, is preceded by a human figure in a flying attitude, remarkable for its graceful outline; but the upper part of both is destroyed.

The legs of all the figures are more slender and gracefully disposed, than I have observed in any other Hindu figures; nor have they that drapery, which usually marks with rigid observance their costume. Another remarkable trait is the vast number of rings about the feet, resembling those worn by the lombádi or benjári women. None are observed on the toes or arms.

After all, though this differ widely from the carvings observed on Hindu buildings, it would be rash to draw any conclusion, until an opportunity offers of observing more sculptures collected. A correct drawing of the complete slab, over the temple of Mahádeo, would be extremely desirable, and a complete section across the area of Dípál-dinña would perhaps exhibit more remains.

I was disappointed in not finding anything like the figure of Jaina-der, which I had seen at Cálúna.
ANCIENT
Sculpture and Inscription at Sravangoody
[characters unknown]
near
MADAGASCAR
October 1801
PARTICULARS OF THE JAINS.

EXTRACTED FROM A JOURNAL,

BY

DOCTOR F. BUCHANAN,

DURING TRAVELS IN CANARA.

HAVING invited Pandita Ácharya Swámi, the Guru of the Jains, to visit me, he came, attended by his most intelligent disciples, and gave me the following account of his sect.

The proper name of the sect is Árhatá; and they acknowledge, that they are one of the twenty-one sects, considered as heretical by Sánscara Ácharya. Like other Hindus, they are divided into Bráhmen, Čhatriya, Vaisya and Súdra. These casts cannot intermarry together; but a man of high cast is not disgraced by having connection with a woman of a lower one, provided she be of pure descent. A similar indulgence is not granted to the women of the higher casts. The men are allowed a plurality of wives, which they must marry before the age of puberty. The man and woman must not be of the same family in the male line. Widows ought not to burn themselves with the bodies of their husbands; but those of the Súdra only are permitted to take a second husband. The Bráhmens and Vaisyas in Tulava, and every cast above the Gháts, consider their own children as their heirs; but the Rájás and Súdras of Tulava, being possessors of land, follow the custom of the country; and their heirs are their sister's children. Not even the Súdras are permitted to eat animal food, or to drink spirituous liquors; nor is it lawful for any one to kill an animal, except for the Čhatriya when engaged in war. They all burn the dead.
The Arhatas reject the Vedas and eighteen Purānis of the other Brāhmens, as heretical. They say, that these books were composed by a Rishi named Vyāsa, whom the other Brāhmens consider as an incarnation of the deity. The chief book, of which the doctrine is followed by the Arhatas, is named Yōga. It is written in the Sanscrit language, and character of Carnāta; and is explained by twenty-four Purānas, all written by its author, who was named Vṛishabhā Sāyana, a Rishi, who had obtained a knowledge of divine things, by long continued prayer. They admit, that all Brāhmens are by birth of equal rank; and are willing to show their books to the Brāhmens who heretically follow the doctrine of the Vedas; but they will not allow any of the lower classes to look upon their sacred writings.

The Gods of the Arhatas are the spirits of perfect men; who, owing to their great virtue, have become exempt from all change and misfortune; and are all of equal rank and power. They are called collectively by various titles, such as Jīnēswara, Ārhat, and Siddha; but each is called by a particular name, or names; for many of them have above a thousand appellations. These Siddhas reside in a heaven, called Mocsha; and it is by their worship only, that future happiness can be obtained. The first person, who by his virtue arrived at this elevated station, was Ādiparamēswara; and by worshipping him, the favour of all the Siddhas may be procured. He has a thousand and eight names, the most common of which, amongst his adorers, is Jīnēswara, or God.

The servants of the Siddhas are Dévatās, or the spirits of good and great men; who, although not so perfect as to obtain an exemption from all future change, yet live in an inferior heaven, called Swarga; where, for a certain length of time, they enjoy great power and happiness;
according to the merit of the good works, which they performed, when living as men. *Swarga* is situated higher in the regions of the air than the summit of Mount *Méru*, and its inhabitants ought to be worshipped by men, as they possess the power of bestowing temporal blessings. Concerning the great Gods of the *Védas*, the *Árhatas* say, that *Vishnu* was a *Rájá*, who having performed certain good works, was again born a *Rájá*, of the name of *Ráma*. At first he was a great hero, and conqueror; but afterwards he retired from the pleasures of the world, became a *Sannyási*, and lived a life of such purity, that he obtained *Siddhi* (beatitude) under the name of *Jína*, which he had assumed, when he gave up his earthly kingdom.* Mahésvara* or *Siva*, and *Brahma*, are at present, *Dévatas*; but are inferior in rank and power to *Indra*, who is the chief of all the happy beings, that reside in *Swarga*. In this heaven are sixteen stages, containing so many different kinds of *Dévatas*, who live in a degree of bliss in proportion to their elevation. An inferior kind of *Dévatas*, called *Vyantarás*, live on mount *Méru*; but their power and happiness are greatly inferior to those of the *Dévatas* of *Swarga*. The various *Sáctis*, are *Vyantarás* living on *Mahá-Méru*; but they are of a malevolent disposition.

Below *Mahá-Méru*, and the earth, is situated *Bhuvana*, or hell; the residence of the spirits of wicked men. These are called *Ráçhas* and *Asuras*, and are miserable, although endowed with great power. *Bhuvana*.

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*I am informed, that the *Jains* have a legendary history of *Rámachandra*, which is termed *Padmapurána*, and is quite distinct from the *Purána* received under that title by the orthodox *Hindus*. H. T. C.*
avana is divided into ten places of punishment, which are severe in proportion to the crimes of their respective inhabitants.

The heavens and earth in general, including Mahá-Méru and Bhuvana, are supposed never to have been created, and to be eternal; but this portion of the earth, Árya or Bharata, is liable to destruction and renovation. It is destroyed by a poisonous wind, that kills every thing; after which a shower of fire consumes the whole Cánda. It is again restored by a shower of butter, followed by one of milk, and that by one of the juice of sugar-cane. Men and animals then come from the other five Cándas of the earth, and inhabit the new Árya or Bharatacánda. The books of the Árhatas mention many Dwípas, surrounding Mahá-Méru, of which the one we inhabit is called Jambú-dwípa. People from this can go as far as Manushótara, a mountain in the middle of Pushcara-Dwípa, between which and Jambú-Dwípa are two seas, and an island named Dhatuci. Jambú-Dwípa is divided into six Cándas, and not into nine, as is done by the Bráhmens who follow the Védas. The inhabitants of five of the Cándas are called Mléchhis or barbarians. Árya or Bharatacánda is divided into fifty-six Désas or provinces,* as is done by the other Bráhmens. As Arabia and China form two of these Désas, Árya would seem to include all the world, that was tolerably known to the Árhatas, who composed the books of this sect.

Every animal, from Indra down to the meanest insect, or the most wicked Ráṣha, has existed from all eternity; and will continue to undergo changes, from a higher to a lower rank, or from a lower to a higher dignity, according to the nature of its actions, till at length it

* Perhaps the 56 Antara-dwípas are meant. H. T. C.
becomes perfect, and obtains a place among the Sudras. A Sudra must be born as one of the three higher castes, before he can hope for this exemption from evil; but, in order to become a Brahmen, it is not necessary, that he should be purified by being born of a cow, as many of the followers of the Vedas pretend. The Arhatas however allow, that to kill an animal of the cow kind is equally sinful with the murder of one of the human species. The death of any other animal, although a crime, is not of so atrocious a nature. The Arhatas, of course, never offer sacrifice, but worship the Gods and Devatas, by prayer, and offerings of flowers, fruits, and incense.

The Arhatas are frequently confused, by the Brahmens who follow the Vedas, with the Saugatas, or worshippers of Buddhha; but this arises from the pride of ignorance. So far are the Arhatas from acknowledging Buddhha as their teacher, that they do not think he is now even a Devata; but allege, that he is undergoing various low metamorphoses, as a punishment for his errors. Their doctrine, however, it must be observed, has in many points a strong resemblance to that taught by the followers of Buddhha.

The Jain Brahmens are all Vaidya, and dress like the others, who follow the doctrine of the Vedas. They have Gurus, who are all Sannyisas; that is to say, have relinquished the world, and all carnal pleasures. These Gurus, in general, acknowledge, as their superior, the one who lives at Sravana Belligona, near Seringapatam: but Pandita Acharya Swami pretends to be at least his equal. In each Matha there is only one Sannyasi; who, when he is near death, gives the proper instruction to one of his followers, who must relinquish the world and

* Within four miles of Chinnay-patien.
all its enjoyments, except perhaps an indulgence in the pride of devotion. The office is not confined to the Brahmins; none but the Sudras are excluded from this highest of dignities; for all the Sannyasis, after death, are supposed to become Sâdha; and of course do not worship the Dévatâs, who are greatly their inferiors. The Sannyasis never shave, but pull out all their hair by the roots. They never wear a turban; and are allowed to eat and drink but once a day. In fact, they are very abstemious; and the old Swâmi, who, from his infirmities, expected soon to become a God, mortified the flesh exceedingly. The Gurus have the power of fining all their followers, who cheat or lie, or who commit murder and adultery. The fines are given to the God; that is, to his priest. These Gurus excommunicate all those who eat animal food, or fornicate with persons who are not Jains; which, of course, are looked upon as greater crimes than those that are only punished by fine. The married Brahmins act as priests for the Gods, and as Puróhitas for the inferiour casts. The follower may choose any Brahmen he pleases, for his Puróhita. The Brahmen receives alms; and reads prayers on the occasion; as he does also at the marriages, funerals, and commemorations of the deceased ancestors of his followers.

The Jains are spread all over India; but at present, are not numerous anywhere, except in Tulava. They alledge, that formerly they extended over the whole of Arya or Bharatacanda; and that all those, who had any just pretensions to be of Cshatriya descent, were of their sect. It no doubt appears clear, that, in the south of India, many powerful princes were their followers, till the time of Râmanuja Âchârya. They say, that, formerly they were very numerous in Arabia; but that, about 2500 years ago, a terrible persecution took place, at Mecca, by
orders of a king named Pārswa Bhattāraça, which forced great
numbers to come to this country. Their ideas of history and chron-
ology, however, as usual with Brāhmens, are so very confused, that they
suppose Pārswa Bhattāraça to have been the founder of the
Muhammedan faith. None of them have the smallest trace of the Ara-
bian features; but are in every respect entirely Hindus.

There are two kinds of temples among the Jains; one covered with
a roof, and called Baṣṭi; and the other an open area surrounded by a
wall, and called Bettu, which signifies a hill. The temples of Śiva
and Vishnu, the great Gods of the followers of the Vēdas, are here called
Gadies. In the Baṣṭiś are here worshipped the images of twenty-four
persons, who have obtained Siddhi, or become Gods. These images
are all naked, and exactly of the same form; but they are called by dif-
ferent names, according to the person, whom they are meant to repre-
sent. These idols are in the form of a man sitting. In the temples cal-
called Bettu, the only image of a Siddha is that of a person called Gōma-
ta Rāja, who, while on earth, was a powerful king. The images of
Gōmatā Rāja are naked, and always of a colossal size. That, which
is at Kurcul, * is made of one piece of granite, the extreme dimensions
of which, above ground, are 38 feet in height, 10½ feet in breadth,
and 10 feet in thickness. How much is below ground, I cannot say;
but it is probably sunk at least three feet, as it has no lateral support.
According to an inscription on the stone itself, it was made by ViRA-
Pandia, son of Bhaṅraṅḍra, 369 years ago.

The Jains deny the creation of man, as well as of the world. They
allow, that Brāhma was the son of a king, and that he is a Dévatā;

* Succal. Rennel's map, (U. l.)

x x x
and the favourite servant of Gómata Ráya: but they altogether deny his creative power. Brahmá, and the other Dévatás, are worshipped, as I have said, by the Jains, who have not become Sannyásís; but all the images of these supposed beings, that are to be found in the Bastis, or Bettus, are represented in a posture of adoration, worshipping the Sidd'ha to whom the temple is dedicated. These images, however, of the Dévatás, are not objects of worship, but merely ornamental; and the deity has not been induced to reside in the stone by the powerful invocations of a Bráhmen. When a Jain wishes to adore one of these inferior spirits, he goes to the temple dedicated to its peculiar worship. Ráma is never represented by an idol in a Basti, although he is acknowledged to be a Sidd'ha: and, although Ganesa and Hanumán are acknowledged to be Dévatás, these favourites of the followers of the Vedas have no images in the temples of the Árhatas.

The Jains have no tradition of a great deluge, that destroyed a large proportion of the inhabitants of the earth; but they believe, that occasionally most of the people of Árya are destroyed by a shower of fire. Some have always escaped to the other Cândas, and have returned to repopulate their native country, after it has been renovated by showers of butter, milk, and the juice of the sugar-cane. The accounts of the world, and the various changes, which the Jains suppose it to have undergone, are contained in a book called Lóca Swarupa. An account of Gómata-Ráya is given in a book called Gómata Ráya Cheritra. The Camunda Ráya Puráña contains a history of the twenty-four Sidd'has worshipped in the Bastis.
V.

OBSERVATIONS ON THE SECT OF JAINS,

BY H. T. COLEBROOKE, ESQ.

The information, collected by Major Mackenzie, concerning a religious sect hitherto so imperfectly known, as that of the JAINAS, and which has been even confounded with one more numerous and more widely spread (the sect of BUDDHA), may furnish the ground of further researches, from which an exact knowledge of the tenets and practice of a very remarkable order of people, may be ultimately expected. What Major Mackenzie has communicated to the society, comes from a most authentick source; the declarations of two principal priests of the Jainas themselves. It is supported by similar information, procured from a like source by Dr. F. Buchanan, during his journey in Mysore, in the year following the reduction of Seringapatam. Having the permission of Dr. Buchanan, to use the extracts, which I had his leave to make from the journal kept by him during that journey; I have inserted, in the preceding article, the information received by him from priests of the Jainas sect.

I am enabled to corroborate both statements, from conversation with Jain priests, and from books, in my possession, written by authors of the Jain persuasion. Some of those volumes were procured for me at Benares; others were obtained from the present Jagat-Set at Morshedabad, who, having changed his religion, to adopt the worship of Vishnu, forwarded to me, at my request, such books of his former faith, as were yet within his reach.
It appears, from the concurrent result of all the inquiries which have been made, that the Jainas constitute a sect of Hindus, differing, indeed, from the rest, in some very important tenets; but following, in other respects, a similar practice, and maintaining like opinions and observances.

The essential character of the Hindu institutions is the distribution of the people into four great tribes. This is considered by themselves to be the marked point, which separates them from Melch'has or Barbarians. The Jainas, it is found, admit the same division into four tribes, and perform like religious ceremonies, termed Sanscāras, from the birth of a male to his marriage. They observe similar facts; and practice, still more strictly, the received maxims for refraining from injury to any sentient being. They appear to recognise, as subordinate deities, some, if not all, of the gods of the prevailing sects; but do not worship, in particular, the five principal Gods of those sects; or any one of them by preference; nor address prayers, or perform sacrifice, to the sun, or to fire: and they differ from the rest of the Hindus, in assigning the highest place to certain deified saints, who, according to their creed, have successively become superior Gods. Another point, in which they materially disagree, is the rejection of the Vēdas, the divine authority of which they deny; condemning, at the same time, the practice of sacrifices, and the other ceremonies, which the followers of the Vēdas perform, to obtain specific promised consequences, in this world, or in the next.

In this respect, the Jainas resemble the Baudh'has or Saugatas, who equally deny the divine authority of the Vēdas; and who similarly worship certain preeminent saints, admitting likewise, as subordinate dei-
ties, nearly the whole pantheon of the orthodox Hindus. They differ, indeed, in regard to the history of the personages, whom they have deified; and it may be hence concluded, that they have had distinct founders; but the original notion seems to have been the same. In fact, this remarkable tenet, from which the Jainas and Baudh'has derive their most conspicuous peculiarities, is not entirely unknown to the orthodox Hindus. The followers of the Vedas, according to the theology, which is explained in the Vedanta, considering the human soul as a portion of the divine and universal mind, believe, that it is capable of perfect union with the divine essence: and the writers on the Vedanta not only affirm, that this union and identity are attained through a knowledge of God, as by them taught; but have hinted, that by such means the particular soul becomes God, even to the actual attainment of supremacy. *

So far the followers of the Vedas do not virtually disagree with the Jainas and Baudh'has. But they have not, like those sects, framed a mythology upon the supposed history of the persons, who have successively attained divinity; nor have they taken these for the objects of national worship. All three sects agree in their belief of transmigration. But the Jainas are distinguished from the rest by their admission of no opinions, as they themselves affirm, which are not founded on perception, or on proof drawn from that, or from testimony.

It does not, however, appear, that they really withhold belief from pretended revelations: and the doctrines, which characterise the sect, are not confined to a single tenet; but form an assemblage of mytholo-

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* Vribad aranyaca Upanishad.
gical and metaphysical ideas found among other sects, joined to many visionary and fantastick notions of their own.

Their belief in the eternity of matter, and perpetuity of the world, is common to the Sánchya philosophy, from which it was perhaps immediately taken. Their description of the world has much analogy to that which is given in the Puránas, or Indian theogonies: but the scheme has been rendered still more extravagant. Their precaution to avoid injuring any being is a practice inculcated in the orthodox religion, but which has been carried by them to a ludicrous extreme.

In their notions of the soul, and of its union with body, and of retribution for good and evil, some analogy is likewise observable. *The Jainas conceive the soul (Jíva) to have been eternally united to a very subtil material body, or rather to two such bodies, one of which is invariable, and consists (if I rightly apprehend their metaphysical notions) of the powers of the mind; the other is variable, and is composed of its passions and affections: (this, at least, is what I understand them to mean by the Taijas and Cármāna Sarīras). The soul, so embodied, becomes, in its successive transmigrations, united with a groser body denominated Audáríca, which retains a definite form, as man and other mundane beings; or it is joined with a purer essence, varying in its appearance at pleasure, as the Gods and genii. This last is termed Vaicáríca. They distinguish a fifth sort of body, under the name of Náhárica, which they explain as a minute form, issuing from the head of a meditative sage, to consult an omniscient saint; and returning with the desired information to the person whence that form issued, or rather from which

* Jaina Priests usually bear a broom adapted to sweep insects out of their way; lefth the should tread on the minutest being.
it was elongated; for they suppose the communication not to have been interrupted.

The soul is never completely separated from matter, until it obtain a final release from corporeal sufferance, by deification, through a perfect disengagement from good and evil, in the person of a beatified saint. Intermediately, it receives retribution for the benefits or injuries ascribable to it in its actual or precedent state, according to a strict principle of retaliation, receiving pleasure or pain from the same individual, who, in a present or former state, was either benefited or aggrieved.

Major Mackenzie's information confirms that, which I had also received, concerning the distribution of these sectaries into clergy and laity. In Hindustan the Jainas are usually called Syauras; but distinguish themselves into Sravacas and Yatis. The laity (termed Sravaca) includes persons of various tribes, as indeed is the case with Hindus of other sects: but, on this side of India, the Jainas are mostly of the Vaisya class *. The orthodox Hindus have a secular, as well as a regular, clergy: a Brähmana, following the practice of officiating at the ceremonies of his religion, without quitting the order of a householder, may be considered as belonging to the secular clergy; one, who follows a worldly profession, (that of husbandry for example,) appertains to the laity; and so do people of other tribes: but persons, who have passed into the several orders of devotion, may be reckoned to constitute the regular clergy. The Jainas have, in like manner, priests who have entered into an order of devotion; and also employ Brähmanas at their ceremonies; and for want of Brähmanas of their own faith, they even have re-

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* I understand that their Vaisya class includes eighty-four tribes: of whom the most common are those denominated Óswál, Agarwál, Parivár, and C'handéwäl.
course to the secular clergy of the orthodox sect. This subject is sufficiently explained by Major Mackenzie and Dr. Buchanan; I shall, however, add, for the sake of a subsequent remark, that the Jainas apply the terms Yati and Sramana, (in Prākrit and Hindi written Samana,) to a person who has devoted himself to religious contemplation and austerity; and the sect of Buddha uses the word Sramana for the same meaning. It cannot be doubted, that the Sommonacodom of Stian is merely a corruption of the words Sramaṇa Gautama, the holy Gautama of Buddha. *

Having been here led to a comparison of the Indian sects which follow the precepts of the Vedas, with those which reject their authority, I judge it necessary to notice an opinion, which has been advanced, on the relative antiquity of those religions; and especially the asserted priority of the Baudh'has before the Brāhmanas.

In the first place, it may be proper to remark, that the earliest accounts of India, by the Greeks who visited the country, describe its inhabitants as distributed into separate tribes. + Consequently, a sect which, like the modern Baudh'has, has no distinction of cast, could not have been then the most prevalent in India.

It is indeed possible, that, the followers of Buddha may, like the Jainas, have retained the distribution into four tribes, so long as they continued in Indostan. But in that case, they must have been a sect of

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* See As. Res. vol. 7. p. 415.

+ Seven tribes are enumerated; but it is not difficult to reconcile the distinctions which are stated by Arrian and Strabo, with the present distribution into four classes.
Hindus; and the question, which is most ancient, the Bādhmanā or the Baudhāha, becomes a solecism.

If it be admitted, that the Baudhāhas are originally a sect of Hindus, it may be next questioned whether that, or any of the religious systems now established, be the most ancient. I have on a former occasion, indicated the notions, which I entertain on this point. According to the hypothesis, which I then hinted, the earliest Indian sect, of which we have any present distinct knowledge, is that of the followers of the practical Vedas, who worshipped the sun, fire, and the elements; and who believed the efficacy of sacrifices, for the accomplishment of present and of future purposes. It may be supposed, that the refined doctrine of the Vedāntic, or followers of the theological and argumentative part of the Vedas, is of later date: and it does not seem improbable, that the sects of Jīna and of Buddhāha are still more modern. But I apprehend, that the Vaishnavas, meaning particularly the worshippers of Rama and of Kṛishṇa, may be subsequent to those sects, and that the Saivas also, are of more recent date.


† In explanation of a remark contained in a former essay (As. Res. vol. 8. p. 475), I take this occasion of adding, that the mere mention of Rāma or of Kṛishṇa, in a passage of the Vedas, without any indication of peculiar reverence, would not authorize a presumption against the genuineness of that passage, on my hypothesis; nor, admitting its authenticity, furnish an argument against that system. I suppose both heroes to have been known characters in ancient fabulous history; but conjecture, that, on the same basis, new fables have been constructed, elevating those personages to the rank of Gods. On this supposition, the simple mention of them in genuine portions of the Vedas, particularly in that part of it which is entitled Brāhmaṇa, would not appear surprising. Accordingly, Kṛishṇa, son of Dēvaĉi, is actually named in the
I state it as an hypothesis, because I am not, at present, able to support the whole of this position, on grounds, which may appear quite satisfactory to others; nor by evidence, which may entirely convince them. Some arguments will, however, be advanced, to show, that the supposition is not gratuitous.

The long sought history of Čāshmir, which, in the original Sanskrit, was presented to the emperor Acber, as related by Abūl Fazl in the Ayn Acheri, and of which a Persian translation exists, more ample than Abūl Fazl's brief abstract, has been at length recovered in the original language. A fuller account of this book will be hereafter submitted to the society: the present occasion for the mention of it, is a passage which was cited by Dr. Buchanan, from the English translation of the Ayn Acheri, for an import which is not supported by the Persian or Sanskrit text.

The author, after briefly noticing the colony established in Čāshmir by Casyapa, and hinting a succession of kings to the time of the Curus and Pándavas, opens his detailed history, and list of princes, with Góndada a contemporary of Yud'hisht'hira. He describes Asóca (who was 12th in succession from Góndada,) and his son Jalóca, and grandson Damódara, as devout worshippers of Śiva; and Jalóca, in particular, as a conqueror of the Mléchhas, or barbarians. Damódara, according to this history, was succeeded by three kings of the race.

Ob'handóya Upaníṣhad (towards the close of the 3d. Chapter), as having received theological information from Ghóra a descendant of Angirás. This passage, which had escaped my notice, was indicated to me by Mr. Speke, from the Persian translation of the Upaníṣhad.


† The copy, which I possess, belonged to a Brāhmaṇa who died some months ago (1805) in Calcutta. I obtained it from his heirs.

of Turushca; and they were followed by a Bôdhisatwa, who wrested the empire from them by the aid of Sâcyasinha, and introduced the religion of Budd'ha into Câshmir. He reigned a hundred years; and the next sovereign was Abhimanya, who destroyed the Baudh'has, and re-established the doctrines of the Nilapurâna. This account is so far from proving the priority of the Baudh'has, that it directly avers the contrary.

From the legendary tales concerning the last Budd'ha, current in all the countries, in which his sect now flourishes; * and upon the authority of a life of Budd'ha in the Sanscrit language, under the title of Lalita-purâna, which was procured by Major Knox during his publick mission in Népâl, it can be affirmed, that the story of Gautama Budd'ha has been engrafted on the heroic history of the lunar and solar races, received by the orthodox Hindus: an evident sign, that his sect is subsequent to that, in which this fabulous history is original.

The same remark is applicable to the Jainas, with whom the legendary story of their saints also seems to be engrafted on the Pauranic tales of the orthodox sect. Sufficient indication of this will appear, in the passages, which will be subsequently cited from the writings of the Jainas.

Considerable weight might be allowed to an argument deduced from the aggravated extravagance of the fictions admitted by the sects of Jina and of Budd'ha. The mythology of the orthodox Hindus, their present chronology adapted to astronomical periods, their legendary tales, their mystical allegories, are abundantly extravagant. But

* Relation d'un voyage. Tachard. Laluere, Royaume de Siam.
the Jainas and Baudh'has surpass them in monstrous exaggerations of the same kind. In this rivalship of absurd fiction, it would not be unreasonable to pronounce that to be most modern, which has outgone the rest.

The greater antiquity of the religion of the Védas is also rendered probable, from the prevalence of a similar worship of the sun and of fire in ancient Persia. Nothing forbids the supposition, that a religious worship, which was there established in times of antiquity, may have also existed from a remote period in the country between the Ganges and the Indus.

The testimony of the Greeks preponderates greatly for the early prevalence of the sect, from which the present orthodox Hindus are derived. Arrian, having said, that the Brachmanes were the sages or learned among the Indians,* mentions them under the latter designation (σοφοις) as a distinct tribe, "which, though inferior to the others in number, is superior in rank and estimation; bound to no bodily work; nor contributing any thing from labor to the publick use: in short, no duty is imposed on that tribe, but that of sacrificing to the Gods for the common benefit of the Indians; and, when any one celebrates a private sacrifice, a person of that class becomes his guide; as if the sacrifices would not else be acceptable to the Gods."†

Here, as well as in the sequel of the passage, the priests of a religion consonant to the Védas, are well described: and what is said, is suitable

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* Καὶ τῶν Βραχμάνων ἐκ δὴ σοφοί τοῖς ᾼνδοις ἔστιν. n. l. A. lib. 6.

† Νενιποῦντι οἱ πάντες Ἡνδοὶ εἰς ἐκάθα μάλιστα γενεάς: ἐν μιᾷ ἀνθρώπῳ οἱ Σοφοὶ δέοι,

* t. A. Arrian in Indicis.
to them; but to no other sect, which is known to have at any time prevailed in India.

A similar description is more succinctly given by Strabo. * It is said, that the Indian multitude is divided into seven classes; and that the philosophers are first in rank, but fewest in number. They are employed, respectively, for private benefit, by those who are sacrificing or worshipping, &c.' *

In another place he states, on the authority of Megasthenes, "two classes of philosophers or priests; the Brachmanes and Germanes: but the Brachmanes are best esteemed, because they are most consistent in their doctrine." † The author then proceeds to describe their manners and opinions: the whole passage is highly deserving of attention, and will be found, on consideration, to be more suitable to the orthodox Hindus, than to the Baudhânas or Jainas: particularly towards the close of his account of the Brachmanes, where he says, "In many things they agree with the Greeks; for they affirm, that the world was produced and is perishable; and that it is spherical: that God, governing it as well as framing it, pervades the whole: that the principles of all things are various; but water is the principle of the construction of the world: that, besides the four elements, there is a fifth nature, whence heaven and the stars: that the earth is placed in the centre of all. Such and many other things are affirmed of reproduction, and of the soul. Like Plato, they devise fables concerning the immortality of the soul, and

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* Φυσι δέ το τῶν Ἰνδόν πλῆθος εἰς ἑκάτη μέρη διηγήθηκε, καὶ πρέπει μὲν τῆς Φιλοσφο.

† Ἀλλ' ἰδιοίς χρήσεις ποιεῖται περὶ τῶν Φιλοσόφων, διό γενή Φασίς, εἰ τῆς μὲν Βραχμάνων καλεῖ, τὸς δὲ Γερμανας. κ. τ. τ. lib. 15.
the judgment in the infernal regions; and other similar notions.
These things are said of the Brachmanes.'

Strabo notices likewise another order of people, opposed to the
Brachmanes, and called Praamnes: he characterises them as 'contentious
cavillers, who ridiculed the Brachmanes for their study of physiology
and astronomy.'*

Philostratus, in the life of Apollonius, speaks of the Brach-
manes as worshipping the sun. 'By day they pray to the sun respecting
the seasons, which he governs, that he would send them in due time;
and that India might thrive: and, in the evening, they intreat the so-
lar ray not to be impatient of night, and to remain as conducted from
them.' †

Pliny and Solinus ‡ also describe the Gymnosophists contempla-
ting the sun; and Hierocles, as cited by Stephanus of Byzantium,‡
expressly declares the Brachmanes to be particularly devoted to the sun.

This worship, which distinguishes the orthodox Hindus, does not
seem to have been at any time practised by the rival sects of Jina and
Buddha.

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* Φιλοσόφοις τε τοῖς Βραχμάνοις διαδαρκούται Πράμνας ἐμικτάς ὑνις καὶ ἐλεγκτικός.
κ. τ. λ. lib. 15.

† Μεθ' ἤμεραν μὲν ὡς ἤλιον ὑπερ ὣς ὑμῖν, κ. τ. λ. lib. 3. cap. 4.

‡ Pliny. lib. 7. c. 2. Solin. l. 52.

† Τῷ Βραχμάνῳν Φύλον ἀνήμεν Φιλοσόφων, καὶ θεοῖς Φύλοι, ἦλιος ἐν μαλακή καθωμίσθαι
Steph. de Urbibus; ad vocem Brachmanes.
Porphyrius, treating of a class of religious men, among the Indians, whom the Greeks were accustomed to call Gymnosophists, mentions two orders of them; one the Brachmanes, the other the Samanaeans: the Brachmanes receive religious knowledge, like the priesthood, in right of birth; but the Samanaeans are selected, and consist of persons choosing to prosecute divine studies. He adds, on the authority of Bardesanès, that all the Brachmanes are of one race; for they are all descended from one father and one mother. But the Samanaeans are not of their race; being selected from the whole nation of Indians, as beforementioned. The Brachman is subject to no domination; and contributes nothing to others.*

In this passage, the Bráhman, as an hereditary order of priesthood, is contrasted with another religious order; to which persons of various tribes were admissible: and the Samanaeans, who are obviously the same with the Germanes of Strabo, were doubtless Sannyásins; but may have belonged to any of the sects of Hindus. The name seems to bear some affinity to the Śramaṇas, or asceticks of the Jainas and Baudhāyas.

Clemens Alexandrinus does indeed hint, that all the Bráhmanes revered their own men as deities; † and in another place, he describes them as worshipping Hercules and Pan ‡. But the following passage from Clemens is most in point. Having said, that philosophy flourished anciently among the barbarians, and afterwards was introduced among the Greeks; he instances the prophets of the Egyptians, the Chaldees of the Assyrians; the Druids of the Gauls (Galatae); the Saman-

* Porph. de Abitinentia. lib. 4.
† Καὶ μω οὖν δοξοφίν, &c. Strom. lib. 1.
‡ Strom. lib. 3. &c.
æans of the Bactrians; the philosophers of the Celts; the Magi of the Persians; the Gymnosophists of the Indians: and proceeds thus. They are of two kinds, some called Sarmanes, other Brachmanes. Among the Sarmanes, those called Allobii* neither inhabit towns, nor have houses; they are clad with the bark of trees, and eat acorns, and drink water with their hands. They know not marriage, nor procreation of children; like those now called Encratetæi (chaste). There are likewise, among the Indians, persons obeying the precepts of Butta, whom they worship as a God on account of his extreme venerableness.

Here, to my apprehension, the followers of Budd’ha are clearly distinguished from the Brachmanes and Sarmanes. † The latter, called, Germanes by Strabo and Samanaæans by Porphyrius, are the ascetics of a different religion; and may have belonged to the sect of Jina, or to another. The Brachmanes are apparently those, who are described by Philostratus and Hierocles, as worshipping the sun; and, by Strabo and by Arrian, as performing sacrifices for the common benefit of the nation, as well as for individuals. The religion, which they practised, was so far conformable with the precepts of the Védas: and their doctrine and observances, their manners and opinions, as noticed by the authors above cited, agree with no other religious institutions known in India, but the orthodox sect. In short, the Brăhmanes are distinctly mentioned by Greek authors, as the first of the tribes or

* Same with the Hylobii of Strabo. C.

† Ἀλλομάνοι δὲ τοιούτω ὡς γενόσι, οἱ μὲν Σαρμάναι, αὐτοῖς ὁ δὲ Βραχμάνοι καλόμενοι. καὶ τῶν Σαρμάνων οἱ Αλλοβιοί προσαγωγεύμενοι, δέ τις πόλεις οἰκοῦσιν, καὶ σέ Γενοσίς ἑξοντα, ὕπάντων δὲ ἀμφιβαίνουσι Φολιατοί, καὶ ἀναδρόμων πυτίταις, καὶ ὃδε τις χεροὶ πίνων, καὶ γάμου, καὶ παιδευμάτων ἑστατι, ὡστε ὁ γὰρ Ἐνυπαλιεύσαι καλόμενοι. καὶ δέ τῶν ἱσθών οἱ τεῖς Βούττα περιθέμενοι παραγγελμάν νόν ὁ δὲ ὑπερθελήνη σεμνότητι οἷος Θεοῦ τετιμήμασι. Stron. lib i.

† The passage has been interpreted differently; as if Clemens said, that the Allobii were those who worshipped Butta. (See Moreri Art. Samanicæi). The text is ambiguous.
castes, into which the Indian nation was then, as now, divided. They are expressly discriminated from the sect of Budd'ha by one ancient author, and from the Sarmanes or Samanæans (ascetics of various tribes) by others. They are described by more than one authority, as worshipping the sun, as performing sacrifices, and as denying the eternity of the world, and maintaining other tenets incompatible with the supposition, that the sects of Budd'ha or Jina, could be meant: Their manners and doctrine, as described by these authors, are quite conformable with the notions and practice of the orthodox Hindus. It may therefore, be confidently inferred, that the followers of the Védas flourished in India, when it was visited by the Greeks under Alexander: and continued to flourish from the time of Megasthenes, who described them in the fourth century before Christ, to that of Porphyrius, who speaks of them, on later authority, in the third century after Christ.

I have thus stated, as briefly as the nature of the subject permitted, a few of the facts and reasons, by which the opinion, that the religion and institutions of the orthodox Hindus are more modern than the doctrines of Jina and of Budd'ha, may, as I think, be successfully resisted. I have not undertaken a formal refutation of it, and have, therefore, passed, unnoticed, objections which are founded on misapprehension.

It is only necessary to remark, that the past prevalence of either of those sects in particular places, with its subsequent persecution there by the worshippers of Siva or of Vishnu, is no proof of its general priority. Hinduism proper was the early seat of the Hindu religion; and the acknowledged cradle of both the sects in question. They were foreigners in the Peninsula of India; and admitting, as a fact, (what need
not, however, be conceded,) that the orthodox Hindus had not been previously settled in the Carnátaca and other districts, in which the Jínás or the Baudhás have flourished, it cannot be thence concluded, that the followers of the Védas did not precede them in other provinces.

It may be proper to add, that the establishment of particular sects among the Hindus who acknowledge the Védas, does not affect the general question of relative antiquity. The special doctrines introduced by Śānca-ra-Āchārya, by Rámánuja, and by Mādhava-Āchārya, and of course the origin of the sects which receive those doctrines, may be referred, with precision, to the periods when their authors lived; but the religion, in which they are sectaries, has undoubtedly a much earlier origin.

To revert to the immediate object of these observations; which is that of explaining and supporting the information communicated by Major Mackenzie: I shall, for that purpose, state the substance of a few passages from a work of great authority among the Jínás, entitled Cālpa-Sútra, and from a vocabulary of the Sanscrit language by an author of the Jíná sect.

The Abhidhána Chintáméni, a vocabulary of synonymous terms, by Hemachandra áchárya, is divided into six chapters (Cándás,) the contents of which are thus stated in the author's preface. 'The superior deities (Dévádhidévas) are noticed in the first chapter; the Gods (Dévas) in the second; men in the third; beings furnished with one or more senses in the fourth; the infernal regions in the fifth; and terms of general use in the sixth. ' The earth,' observes this author, ' water, fire, air and trees, have a single organ or sense (indriya); worms, ants, spiders and the like, have two, three or four senses; elephants, pea-
cocks, fish, and other beings moving on the earth, in the sky, or in water, are furnished with five senses: and so are Gods and men and the inhabitants of hell.

The first chapter begins with the synonyma of a Jina or deified saint: among which the most common are Arhat, Janesvara, Tirthhancara or Tirthhacara; others, viz. Jina, Sarvajnya, and Bhagavat, occur also in the dictionary of Amara as terms for a Jina or Buddha; but it is deserving of remark, that neither Buddha, nor Sugata, is stated by Hema\-chandra among these synonyma. In the subsequent chapter, however, on the subject of inferior Gods, after noticing the Gods of Hindu mythology, (Indra, and the rest, including Brahma &c.) he states the synonyma of a Buddha, Sugata, or Bodhisatwa; and afterwards specifies seven such, viz. Vipasyi, Sichhi, Viswanat, Cucuchhand, Canchana, and Casyapa, * expressly mentioning as the seventh Buddha, Sacyasinha, also named Servarthasiddha, son of Suddhadana and Mayya, a kinsman of the sun, from the race of Gautama.

In the first chapter, after stating the general terms for a Jina or Arhat; the author proceeds to enumerate twenty-four Arhats, who have appeared in the present Amsarpini age; and afterwards observes, that, excepting Munisuvrata and Nemi, who sprung from the race of Hari, the remaining twenty-two Jinas were born in the line of Ishwacu.† The fathers and mothers of the several Jinas are then men-

* Two of these names occur in Captain Mahony's and Mr. Joinville's lists of five Buddhas. As. Res. vol. 7. p. 34 and 414.
+ I understand that the Jainas have a mythological poem entitled Harivanśa purāṇa, different from the Harivanśa of the orthodox. Their Ischwacu, likewise, is a different person, and the name is said to be a title of their first Jina, Rishaba Deva.
tioned; their attendants; their standards or charactersticks; and the
complexions with which they are figured or described.

The author next enumerates twenty-four Jinás who have appeared
in the past Utsarpini period; and twenty-four others who will appear in
the future age; and, through the remainder of the first book, explains
terms relative to the Jaina religion.

The names of the Jinás are specified in Major Mackenzie's com-
munication. Wherever those names agree with Hémachandra's
enumeration, I have added no remark; but where a difference oc-
curs I have noticed it,* adding in the margin the name exhibited in the
Sanskrit text.

I shall here subjoin the information gathered from Hémachandra's
vocabulary, and from the Calpa Sútra and other authorities, relative to
the Jinás belonging to the present period. They appear to be the de-
sified saints, who are now worshipped by the Jaína sect. They are all
figured in the same contemplative posture, with little variation in their
appearance, besides a difference of complexion: but the several Jinás
have distinguishing marks or characterstic signs, which are usually en-
graved on the pedestals of their images, to discriminate them.

1 Ríshabha, or Vríshabha, of the race of Icshwácu, was son of
Nábhá by Marudévá: he is figured of a yellow or golden complexion;
and has a bull for his characterstic. His stature, as is pretended, was 500
poles (dhanush); and the duration of his life, 84,000,000 great years
(pírva-varśha). According to the Calpa Sútra, as interpreted by the
commentator, he was born at Cójñá or Ayódhyá (whence he is named

* See pages 266, 267, 602.
Causalica), towards the latter part of the third age. He was the first king, first anchoret, and first saint; and is therefore entitled Prat'ha-ma-Rāja, Prat'hama Bhicshācara, Prat'hama Jina and Prat'hama Til-thānarcara. At the time of his inauguration as king, his age was 20,000 years. He reigned 63,00,000 years; and then resigned his empire to his sons: and, having employed 1,00,000 years in passing through the several stages of austerity and sanctity, departed from this world on the summit of a mountain named Aśhīdāpada. The date of his apotheosis was 3 years and 8½ months before the end of the third age, at the precise interval of one whole age before the deification of the last Jina.

2. Ajita; was son of Jitāsātru by Vījaya: of the same race with the first Jina, and represented as of the like complexion; with an elephant for his distinguishing mark. His stature was 450 poles; and his life extended to 72,00,000 great years. His deification took place, in the fourth age, when fifty lacshas of crorś of oceans of years had elapsed out of the tenth cror of crorś.

3. Sambhava was son of Jitāri by Sēna; of the same race and complexion with the preceding; distinguished by a horse; his stature was 400 poles; he lived 60,00,000 years; and he was deified 30 lacshas of crorś of Sāgaras after the second Jina.

4. Abhinandana was son of Sambara by Siddhārṭha: he has an ape for his peculiar sign. His stature was 300 poles; and his life reached to 50,00,000 years. His apotheosis was later by 10 lacshas of crorś of Sāgaras than the foregoing.

* The divisions of time have been noticed by Major Mackenzie p. 257. and will be further explained.
5. Sumati was son of Mecha by Mangala: he has a curlew for his characteristic. His life endured 4,000,000 years, and his deification was nine lacchas of crôrs of Sāgaras after the fourth Jina.

6. Padmaprabha was son of Srīdhara by Susimā; of the same race with the preceding, but described of a red complexion. He has a lotus for his mark: and lived 50,000,000 years, being 200 poles in stature. He was deified 90,000 crôrs of Sāgaras after the fifth Jina.

7. Supārśva was son of Pratishta by Prīthwī; of the same line with the foregoing; but represented with a golden complexion; his sign is the figure called Swastika. He lived 20,000,000 years; and was deified 9,000 crôrs of Sāgaras subsequent to the sixth Jina.

8. Chandraprabha was son of Mahāsena by Laçghmanā; of the same race with the last, but figured with a fair complexion; his sign is the moon; his stature was 150 poles, and he lived 10,000,000 years; and his apotheosis took place 900 crôrs of Sāgaras later than the seventh Jina.

9. Pushpadanta, also named Suvidhi, was son of Supriya by Rāma: of the same line with the preceding, and described of a similar complexion; his mark is a marine monster (Macara); his stature was 100 poles, and the duration of his life 200,000 years. He was deified 90 crôrs of Sāgaras after the eighth Jina.

10. Sitala was son of Drīdharat'ha by Nanda: of the same race, and represented with a golden complexion; his characteristic
is the mark called Sṛvatsa. His stature was 90 poles; and his life 1,00,000 great years; his deification dates 9 ēōras of sāgaras later than the preceding.

11. Sṛṇya (Sṛṇyas) or Sṛṇyasā, was son of Vishnu by Vishnā; of the same race, and with a similar complexion; having a rhinoceros for his sign. He was 80 poles in stature, and lived 84,00,000 common years. His apotheosis took place more than 100 sāgaras of years before the close of the fourth age.

12. Vasupūjya was son of Vasupūjya by Jayā: of the same race, and represented with a red complexion, having a buffalo for his mark: and he was 70 poles high; lived 72,00,000 years; and was deified later by 54 sāgaras than the eleventh Jīna.

13. Vimala was son of Cristavārman by Śyāma; of the same race; described of a golden complexion; having a boar for his characteristic: he was 60 poles high, lived 60,00,000 years, and was deified 30 sāgaras later than the twelfth Jīna.

14. Ananta, also named Ananta-jit, was son of Sinhasēna by Sūyasā. He has a falcon for his sign; his stature was 50 poles; the duration of his life 30,00,000 years; and his apotheosis, 9 sāgaras after the preceding.

15. Dharma was son of Bhandu by Suvrata; characterised by the thunderbolt: 45 poles in stature, and lived 10,00,000 years: deified 4 sāgaras later than the foregoing.
16. Sánti was son of Viswásēna by Achirá, having an antelope for his sign; he was 40 poles high: lived 1,00,000 years; and was deified 2 jāgaras subsequent to the last mentioned.*

17. Cunṭhu was son of Sūra, by Śrī; he has a goat for his mark; his height was 35 poles, and his life 95,000 years. His apotheosis is dated in the last pālya of the fourth age.

18. Aśa was son of Sudarsāna by Déví: characterized by the figure called Nandavarta: his stature was 30 poles; his life, 84,000 years; and his deification, 1,000 crōrs of years before the next Jīna.

19. Malli was son of Cumbha by Prabávali; of the same race with the preceding; and represented of a blue complexion; having a jar for his characterstic: he was 25 poles high, and lived 55,000 years; and was deified 65,84,000 years before the close of the fourth age.

20. Muniśuvrata, also named Suvrata, or Muni, was son of Sumitra by Padmā; sprung from the race called Hari:i:anśa; represented with a black complexion; having a tortoise for his sign: his

* The life of this Jīna is the subject of a separate work entitled Sāntipuruṣa.
height was 20 poles, and his life extended to 30,000 years. His apotheosis is dated 11,84,000 years before the end of the fourth age.

21. NAMI was son of VIJAYA by VIPIRA; of the race of ICSHWACU: figured with a golden complexion; having for his mark a blue water-lily (Nilotpala); his stature was 15 poles; his life 10,000 years: and his deification took place 5,84,000 years before the expiration of the fourth age.

22. NEMI, also called ARISHTANEMI, was son of the king SUMUDRAJAYA by SIVA; of the line denominated HARIVANSA; described as of a black complexion; having a conch for his sign. According to the Calpa sutra, he was born at SORIYAPURA; and, when 300 years of age, entered on the practice of austerity. He employed 700 years in passing through the several stages of sanctity; and, having attained the age of 1000 years, departed from this world at UJJINTRA, which is described as the peak of a mountain, the same, according to the commentator, with GIRONARA. The date of this event is 84,000 years before the close of the fourth age.

23. PARSHA (or PARSHWANATHHA) was son of the king ASWASENA by VAMA or BAHADEVI; of the race of ICSHWACU; figured with a blue complexion; having a serpent for his characteristic. The life of this celebrated JINA, who was perhaps the real founder of the sect, is the subject of a poem entitled PARSHWANATHHA CHARITRA. According to the Calpa sutra, he was born at BANARASI, and commenced

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* I understand this to be a mountain situated in the west of INDIA; and much visited by pilgrims.

† Bhelipur, in the suburbs of Benares, is esteemed holy; as the place of his nativity.
his series of religious austerities at thirty years of age; and having completed them in 70 years, and having consequently attained the age of 100 years, he died on Mount Sammêya or Samêt.* This happened precisely 250 years before the apotheosis of the next Jîna: being stated by the author of the Calpa-Sûtra at 1230 years before the date of that book.

24. Vardhamàna, also named Vîra, Manavîra &c. and surnamed Charana-tirthâértî, or last of the Jînas: emphatically called Sramâna or the saint. He is reckoned son of Siddhârt’a by Pri-šala: and is described of a golden complexion: having a lion for his standard.

The subject of the Calpa-Sûtra before cited is the life and institutions of this Jîna. I shall here state an abstract of his history as there given, premising that the work, like other religious books of the Jainas, is composed in the Prâcrit called Mâgâdhî; and that the Sanscrit language is used by the Jainas, for translations, or for commentaries, on account of the great obscurity of the Prâcrit tongue.†

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* Samêt stîchâra, called in Major Rennell’s map Parfonaut, is situated among the hills between Bibâr and Bengal. Its holiness is great in the estimation of the Jainas: and it is said to be visited by pilgrims from the remotest provinces of India.

† This Prâcrit, which does not differ from the language introduced by dramatic poets into their writings, and assigned by them to the female persons in their dramas, is formed from Sanscrit. I once conjectured it to have been formerly the colloquial dialect of the Sàraswattâ Brâhmens (As. Res. vol. 7. p. 219.) But this conjecture has not been confirmed by further researches. I believe it to be the same language with the Pâli of Ceylon.
According to this authority, the last Tirthamārā, quitting the state of a deity, and relinquishing the longevity of a god, to obtain immortality as a saint, was incarnate towards the close of the fourth age, (now past), when 75 years and 8½ months of it remained. He was at first conceived by Devānanda wife of Rishabhadatta, a Brāhmaṇa inhabiting Brāhmaṇacundagrāma, a city of Bhāratavarṣha in Jambudīpī. The conception was announced to her by dreams. Indra * or Śakra, who is the presiding deity on the south of Mēru, and abides in the first range of celestial regions, called Saundharka, being apprized of Mahāvīra's incarnation, prostrated himself, and worshipped the future saint; but reflecting that no great personage was ever born in an indigent and mendicant family, as that of a Brāhmaṇa, Indra commanded his chief attendant Harināigumeshī to remove the fetus from the womb of Devānanda to that of Trisalā, wife of Siddhārttha, a prince of the race of Icshwācu, and of the Cāsyapa family. This was accordingly executed; and the new conception was announced to Trisalā by dreams; which were expounded by soothsayers, as foreboding the birth of a future Jīna. In due time, he was born; and his birth celebrated with great rejoicings.

His father gave him the name of Vardhamāna. But he is also known by two other names; Śramaṇa and Mahāvīra. His father has similarly three appellations, Siddhārttha, Sreyānsa and Yasāswi; and his mother likewise has three titles, Trisalā, Videhadinna

* The Jains admit numerous Indras; but some of the attributes, stated in this place on the Tirthamāras, belong to the Indra of the Indian mythology.
and Prītičārini. His paternal uncle was Supārśwa, his elder brother Nandivardhana, his sister (mother of Jamāli) Sudārsana. His wife was Yasoda, by whom he had a daughter (who became wife of Jamali) named Anojjā and Priyadarsana. His grand-daughter was called Sēshavatī and Jāsōvatī.

His father and mother died when he was 28 years of age; and he afterwards continued two years with his elder brother: After the second year, he renounced worldly pursuits, and departed, amidst the applause of Gods and men, to practise austerities. The progress of his devout exercises, and of his attainment of divine knowledge, is related at great length. Finally, he became an Arhat or Jīna, being worthy of universal adoration, and having subdued all passions:** being likewise omniscient and all-seeing: and thus, at the age of 72 years, he became exempt from all pain for ever. This event is stated to have happened at the court of king Hastinapala in the city of Pāwāpurī or Pāpāpurī; and is dated 3 years and 8½ months before the close of the fourth age, (called Dučhamā sūčhamā) in the great period named avastarpīnt. The author of the Cālpaśūtra mentions, in several places, that, when he wrote, 980 years had elapsed since this apotheosis.† According to

** So the commentator expounds both terms.

† Near Rājagriha in Bihār. It is accordingly a place of sanctity. Other holy places, which have been mentioned to me, are Champāpurī near Bhāgālpur, Chandrāvati distant ten miles from Benares, and the ancient city Ḥastināpura in Hindustān: also Satrunjaya said to be situated in the west of India.

†† Samanāsa Bhagavānu Mahābīrassa Jáva duhkha Hīnāssa Navabāsa Sayāin Bicwantāin dāfamāyyaya Bāsa tayaffa ayam Asi imé tambach'hare Cālē gach'hai. Nine hundred years have passed since the adorable Mahābīra became exempt from pain; and, of the tenth century of years, eighty are the time which is now elapsed.
tradition, the death of the last Jina happened more than two thousand four hundred years since, and the Calpasittra appears therefore to have been composed about fifteen hundred years ago.

The several Jinas are described as attended by numerous followers, distributed into classes, under a few chief disciples, entitled Gañādhara or Gañādhīpa. The last Jina had nine such classes of followers, under eleven disciples. Indrabhūti, Agnibhūti, Vāyubhūti, Vyācta, Sudharma, Mandicaputra, Mauryaputra, Acampita, Achalabhrata, Mētarya, Prabhasa. Nine of these disciples died with Mahāvīra; and two of them, Indrabhūti and Sudharma, survived him, and subsequently attained beatitude. The Calpasittra adds, that all ascetics, or candidates for holiness, were pupils in succession from Sudharma, none of the others having left successors. The author then proceeds to trace the succession from Sudharma to the different Sāchās, or orders of priests, many of which appear still to exist. This enumeration disproves the list communicated to Major Mackenzie by the head priest of Belligola.

The ages and periods, which have been more than once alluded to in the foregoing account of the Jains, are briefly explained in Hema-chandra's vocabulary. In the second chapter, which relates to the heavens and the Gods &c. the author, speaking of time, observes, that it is distinguished into Avaśarpini and Uṣarpini, adding that the whole period is completed by twenty cōtis of cōtis of Sāgaras, or 2,000,000,000,000,000 oceans of years. I do not find, that he any

* The most ancient copy in my possession, and the oldest one which I have seen, is dated in 1614 famv. It is nearly 250 years old.
where explains the space of time denominated Ságarā, or ocean. But I understand it to be an extravagant estimate of the time, which would elapse, before a vast cavity, filled with chopped hairs, could be emptied, at the rate of one piece of hair in a century: the time requisite to empty such a cavity, measured by a yójana every way, is a Pálya; and that repeated ten cós of cós of times, * is a Ságarā.

Each of the periods, abovementioned, is stated by Hemachandra as comprizing six Áras; the names and duration of which agree with the information communicated to Major Mackenzie: In the one, or the declining period, they pass from extreme felicity (écánta suhcha) through intermediate gradations, to extreme misery (écánta duhcha). In the other, or rising period, they ascend, in the same order, from misery to felicity. During the three first ages of one period, mortals lived for one, two or three Pálayas; their stature was one, two or three leagues (Gavyyatis); and they subsisted on the fruit of miraculous trees; which yielded spontaneously food, apparel, ornaments, garlands, habitation, nurture, light, musical instruments and household utensils. In the fourth age, men lived ten millions of years; and their stature was 500 poles (Dhanush): in the fifth age, the life of man is a hundred years: and the limit of his stature, seven cubits: in the sixth, he is reduced to sixteen years, and the height of one cubit. In the next period, this succession of ages is reversed, and afterwards they recommence as before.

Here we cannot but observe, that the Jainas are still more extravagant in their inventions, than the prevailing fables of Hindus, absurd as these are in their fables.

* 1,000,000,000 pálayas = one Ságarā or Sagarépama.
In his third chapter, Hemachandra, having stated the terms for paramount and tributary princes, mentions the twelve Chacrabartis and adds the patronymicks and origin of them. Bharata is surnamed Arshabhi or son of Rishabha; Maghavan is son of Vijaya; and Sanaticumara, of Aswaseña, Santi, Cunt'hu and Ara are the Jinas so named. Sagara is described as son of Sumitra; Subhúma is entitled Cartavírya; Padma is said to be son of Padmottara; Harishena of Hari; Jaya of Vijaya; Brahmadatta of Brahme; and all are declared to have sprung from the race of Icshwácu.

A list follows, which, like the preceding, agrees nearly with the information communicated to Major Mackenzie. It consists of nine persons, entitled Vásudévas, and Críshnas. Here Trípríshta is mentioned with the patronymick Prájápatya; Dwípríshta is said to have sprung from Brahme; Swayambhu is expressly called a son of Rudra; and Purushottama, of Soma or the moon. Purushasinha is surnamed Saivi, or son of Siva; Purushapundarica, is said to have sprung from Mahásiras. Datta is termed son of Agnisinha; Nárayana has the patronymick Dásarat'hi (which belongs to Rámachandra); and Críshna is described as sprung from Vasudeva.

Nine other persons are next mentioned, under the designation of Sucla Balas viz. 1 Achala, 2 Vijaya, 3 Bhadra, 4 Suprabha, 5 Sudarşana, 6 Ananda, 7 Nanda, 8 Padma, 9 Ráma.

They are followed by a list of nine foes of Víshnú: it corresponds one of the lists noticed by Major Mackenzie, viz. 1 Aswagríva, 2 Taraca, 3 Méraça, 4 Mad'hu, 5 Nisumbha,
6 Bali, 7 Prahlāda. 8 The king of Lankā (Rāvana). 9 The king of Magad'ha (Jarāsand'ha).

It is observed, that, with the Jinas, these complete the number of sixty-three eminent personages viz. 24 Jinas, viz. Chacravartis, 9 Vāsudevas, 9 Baladevas, and 9 Pratīvāsudevas.

It appears, from the information procured by Major Mackenzie, that all these appertain to the heroick history of the Jaina writers. Most of them are also well known to the orthodox Hindus: and are the principal personages in the Purānas.

Hemachandra subsequently notices many names of princes, familiar to the Hindus of other sects. He begins with Prithu, son of Vena, whom he terms the first king: and goes on to Mandhata, Harischandra; Bharata son of Dushyanta &c. Towards the end of his enumeration of conspicuous princes, he mentions Carna king of Champā and Anga; Hāla or Sālavahana; and Cumarapala, surnamed Chaulecyu, a royal saint, who seems, from the title of Pāramārtha, to have been a Jaina, and apparently the only one in that enumeration.

In a subsequent part of the same chapter, Hemachandra (who was himself a theologian of his sect, and author of hymns to Jina *) mentions and discriminates the various sects; viz. 1st, Ārhatas or Jainas. 2ndly, Saugatas or Baudhāhas and 3dly, six philosophical schools, viz. 1st. Naiyāyika; 2d. Yoga; 3d. Cāpilas Sānchya; 4th. Vaiśesvika; 5th. Vārhaspatyā or Nāstika; and 6th. Čārvac or Lōcayata. The two

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* A commentary on these hymns is dated in Saca 1214 (A. D. 1292), but how much earlier Hemachandra lived, is not yet ascertained.
last are reputed atheistical, as denying a future state and a providence.
If those be omitted, and the two Mimânsâs inserted, we have the six
schemes of Philosophy familiar to the Indian circle of the sciences.

The fourth chapter of Hemachandra's vocabulary relates to earth
and animals. Here the author mentions the distinctions of countries
which appear to be adopted by the Jainas; viz. the regions (Varâha)
named Bharata, Airavata, and Vidéha, to which he adds Cûru; noti-
cing also other distinctions familiar to the Hindus of other sects, but ex-
plaining some of them according to the ideas of the Jainas. 'Aryavarta,'
he observes 'is the native land of Jinas, Chacris and Arddhachacris;
situated between the Vind'hya and Himâdri mountains.' This remark
confines the theatre of Jaina history, religious and heroic, within the
limits of HinduJSan proper.

A passage in Bhâscara's treatise on the sphere, will suggest fur-
ther observations concerning the opinions of the Jainas, on the divisions
of the earth. Having noticed, for the purpose of confuting it, a notion
maintained by the Baudhâs, (whom some of the commentators, as
usual among orthodox Hindus, confound with the Jainas;) respecting
the descent or fall of the earth in space; he says* ' 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.'

* Gôlâdhûya, §. 8. v. 8 & 10.
† Ursâ minor.
The commentators* agree that the *Jainas* are here meant: and one of them remarks, that they are described as ‘naked sectaries, &c.’ Because the class of * Digambaras* is a particular one among these people.

It is true that the *Jainas* do entertain a peculiar notion here attributed to them: and it is also true, that the *Digambaras*, among the *Jainas*, are distinguished from the *Śvetāmbaras*, not merely by the white dress of the one and the nakedness (or else the tawny apparel) of the other; but also by some particular tenets and diversity of doctrine. However, both concur in the same ideas regarding the earth and planets, which shall be forthwith stated, from the authority of *Jaina* books; after remarking, by the way, that ascetics of the orthodox sect, in the last stage of exaltation, when they become *Paranāmahasa*, also diffuse clothing.

"The world, which according to the *Jainas* is eternal, is figured by them as a spindle resting on half of another; or, as they describe it, three cups, of which the lowest is inverted; and the uppermost meets at its circumference the middle one. They also represent the world by comparison to a woman with her arms akimbo.† Her waist, or according to the description first mentioned, the meeting of the lower cups, is the earth. The spindle above, answering to the superior portion of the woman’s person, is the abode of the gods; and the inferior part of the figure comprehends the infernal regions. The earth, which they

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* Lacshmídasa, Muniswara and the Vājanābbhāṣya.
† The Sangrāhāni vatin and Lācanā śātra, both in Prākrit, are the authorities here used.
suppose to be a flat surface, is bounded by a circle, of which the diameter is one raju.* The lower spindle comprises seven tiers of inferior earths or hells, at the distance of a raju from each other, and its base is measured by seven rajus. Seven hells are Ratna prabhā, Sancara prabhā, Cakrapra prabhā, Dhumapra prabhā, Tama prabhā.

The upper spindle is also seven rajus high; and its greatest breadth is five rajus. Its summit, which is 45,00,000 Yojanas wide, is the abode of the deified saints: beneath that are five Vimānas or abodes of gods: of which the center one is named Sarvārthāsiddha: it is encompassed by the regions Aparājita, Jayanta, Vaijayanta and Vijaya. Next, at the distance of one raju from the summit, follow nine tiers of worlds, representing a necklace (grāivyaca), and inhabited by gods, denominated, from their conceited pretensions to supremacy, Ahamindra. These nine regions are Aditya, Pratīncara, Sōmanasa, Sumanasa, Suvisāla, Sarvatobhadra, Manorāma, Supravaddha and Sudarśana.

Under these regions are twelve (the Digambaras say sixteen) other regions, in eight tiers, from one to five rajus above the earth. They are filled with Vimānas, or abodes of various classes of gods, called by the general name of Cālpavāsīs. These worlds, reckoning from that nearest the earth, are Saudhama and Iśana; Sanatcumdra and Mahendra; Brahma; Lāntaca; Śucra; Sahasrāra; Ānata and Prānata; Ārana and Achatya.

The sect of Jīna distinguish four classes of deities, the Vaimānicas, Bhuvanapatis, Jītiśīs and Vyantaras. The last comprises eight

* This is explained to be a measure of space, through which the gods are able to travel in six months, at the rate of 20,57,152 Yojanas (of 2000 eros each,) in the twinkling of an eye.
orders of demigods, or spirits, admitted by the Hindus in general, as the Rāṣṭras, Pīsāchas, Cmnraras &c. supposed to range over the earth. The preceding class (Jyotishtis) comprehends five orders of luminaries; suns, moons, planets, constellations and stars, of which more hereafter. The Vaimánicas belong to the various Vimánas, in the twelve regions, or worlds inhabited by gods.* The class of Bhuvanapati includes ten orders, entitled Asuracumára, Nágaçumára &c.; each governed by two Indras. All these gods are mortal: except, perhaps, the luminaries.

The earth consists of numerous distinct continents, in concentric circles, separated by seas forming rings between them. The first circle is Jambúdwípa with the mountain Sudarśa Méru in the centre. It is encompassed by a ring containing the salt ocean; beyond which is the zone named Dhatucídwdípa; similarly surrounded by a black ocean. This again is encircled by Pusícara-dwípa; of which only the first half is accessible to mankind: being separated from the remoter half, by an impassable range of mountains, denominated Mánushóttara Parvata. Dhatucídwdípa contains two mountains, similar to Súmeru, named Výjanga and Achala; and Pusícara contains two others, called Mandirá and Vídyunmáli.

The diameter of Jambúdwípa being 1,00,000 great Yéjanas, * if the 190th part be taken, or $525\frac{6}{9}$, we have the breadth of Bharata varṣha, which occupies the southern segment of the circle. Airávata is a similar northern segment. A band (33648 $\frac{4}{9}$ Yéjanas wide) across the circle, with Sudarśa Méru in the middle of it, is Vidéha varṣha, divided by Méru (or by four peaks like elephant's teeth, at the four corners of that

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* Each great Yéjana contains 2000 cér.
vast mountain) into east and west Vidéha. These three regions, Bharata, Airávata, and Vidéha, are inhabited by men who practise religious duties. They are denominated Cārnabhūmi, and appear to be furnished with distinct sets of Tīrthāncaras or saints entitled Jīnas. The intermediate regions, north and fourth of Mēru, are bounded by four chains of mountains; and interlocked by two others: in such a manner, that the ranges of mountains, and the intermediate vallies, increase in breadth progressively. Thus Himavat is twice as broad as Bharata varsha (or 1052 \(\frac{1}{2}^9\)); the valley beyond it is double its breadth (2105 \(\frac{1}{9}\)); the mountain Mahāhimavat, is twice as much (4210 \(\frac{1}{2}^9\)): its valley is again double (8421 \(\frac{1}{7}\)); and the mountain Nīshadha has twice that breadth (16842 \(\frac{1}{7}\)). The vallies between these mountains, and between similar ranges reckoned from Airávata (viz. Sīcharī, Raçaṃ and Nīla), are inhabited by giants (Yugala), and are denominated Bhōgabhūmi. From either extremity of the two ranges of mountains named Himavat and Sīcharī, a pair of tusks project over the sea; each divided into seven countries denominated Antara-dwīpas. There are consequently fifty-six such; which are called Cūbhōgabhūmi, being the abode of evildoers. None of these regions suffer a periodical destruction; except Bharata and Airávata, which are depopulated, and again peopled, at the close of the great periods beforementioned.

We come now to the immediate purpose, for which these notions of the Jainas have been here explained. They conceive the setting and rising of stars and planets to be caused by the mountain Sūmeru: and suppose three times the period of a planet's appearance to be requisite for it to pass round Sūmeru, and return to the place whence it emerges. Accordingly, they allot two suns, as many moons, and an equal num-

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ber of each planet, star and constellation, to Jambudwipa; and imagine that these appear, on alternate days, south and north of Meru. They similarly allot twice that number to the salt ocean; six times as many to Dhátuci dwiæa; 21 times as many, 42 of each, to the Cālo-dādhi; and 72 of each to Pusheara dwiæa.

It is this notion, applied to the earth which we inhabit, that Bhacara refutes. His argument is thus explained by his commentators.

"The star close to the north pole, with those near it to the east and west, form a constellation figured by the Indian astronomers as a fish. In the beginning of the night (supposing the sun, to be near Bharani or Musca), the fish's tail is towards the west, and his head towards the east; but at the close of the night, the fish's tail, having made half a revolution, is towards the east, and his head towards the west: and since the sun, when rising and setting, is in a line with the fish's tail, there is but one sun; not two." This explanation is given by Muniswara and Lācshmīdāsa. But the Vāsanā Bhāṣhyā reverses the fish; placing his head towards the west at sun set, when the sun is near Bharani."
VI.

On the Indian and Arabian Divisions of the Zodiac.

BY H. T. Colebrooke, Esq.

The researches of which the result is here laid before the Asiatick Society, were undertaken for the purpose of ascertaining correctly the particular stars, which give names to the Indian divisions of the Zodiac. The inquiry has at intervals been relinquished and resumed: it was indeed attended with considerable difficulties. None of the native astronomers, whom I consulted, were able to point out, in the heavens, all the asterisms for which they had names: it became, therefore, necessary to recur to their books, in which the positions of the principal stars are given. Here a fresh difficulty arose from the real or the seeming disagreement of the place of a star with the division of the Zodiac, to which it was referred: and I was led from the consideration of this and of other apparent contradictions, to compare carefully the places assigned by the Hindus to their nashtaras, with the positions of the lunar mansions, as determined by the Arabian astronomers. After repeated examination of this subject, with the aid afforded by the labors of those, who have preceded me in the same inquiry, I now venture to offer to the perusal of the Asiatick Society the following remarks, with the hope, that they will be found to contain a correct ascertaining of the stars by which the Hindus have been long accustomed to trace the moon’s path.

The question, which I proposed to myself for investigation, appeared to me important, and deserving of the labor bestowed upon it, as obviously essential towards a knowledge of Indian astronomy, and as tending to determine another question: namely, whether the Indian and Arabian divisions of the Zodiac had a common origin. Sir William Jones
thought, that they had not: I incline to the contrary opinion. The coincidence appears to me too exact, in most instances, to be the effect of chance: in others, the differences are only such, as to authorize the remark, that the nation, which borrowed from the other, has not copied with servility. I apprehend, that it must have been the Arabs who adopted (with slight variations) a division of the Zodiac familiar to the Hindus. This, at least, seems to be more probable than the supposition, that the Indians received their system from the Arabians: we know, that the Hindus have preserved the memory of a former situation of the Co-lures, compared to constellations, which mark divisions of the Zodiac in their astronomy; but no similar trace remains of the use of the lunar mansions, as divisions of the Zodiac, among the Arabs, in so very remote times.

It will be found, that I differ much from Sir William Jones in regard to the stars constituting the asterisms of Indian astronomy. On this, it may be sufficient to remind the reader, that Sir William Jones stated only a conjecture founded on a consideration of the figure of the \textit{naçhatra} and the number of its stars, compared with those actually situated near the division of the ecliptick, to which the \textit{naçhatra} gives name. He was not apprized, that the Hindus themselves place some of these constellations far out of the limits of the Zodiac.

I shall examine the several \textit{naçhtraras} and lunar mansions in their order; previously quoting from the Hindu astronomers, the positions assigned to the principal star, termed the \textit{yogatara}. This, according to Brahmegupta, (as cited by Lacsñmadāsa in his commentary on the \textit{Siromani}) or according to the Brahmesādhaṭṭa (cited by Bhuddhara), is the brightest star of each cluster. But the \textit{Suryasādhaṭṭa} specifies the relative situation of the \textit{Yogatara} in respect of the other
flars: and that does not always agree with the position of the most conspicuous flar.

The number of stars in each asterism, and the figure under which the asterism is represented, are specified by Hindu astronomers; particularly by Sripati in the Rainamalā. These, with the positions of the stars relatively to the ecliptic, are exhibited in the annexed table. It contains the whole purport of many obscure and almost enigmatical verses, of which a verbal translation would be nearly as unintelligible to the English reader, as the original text.

The authorities, on which I have chiefly relied, because they are universally received by Indian astronomers, are the Suryasiddhānta, Sirōmanī, and Grahalaghava. They have been carefully examined, comparing at the same time several commentaries. The Rainamalā of Sripati is cited for the figures of the asterisms; and the same passage had been noticed by Sir William Jones (As. Res. vol. 2. p. 294). It agrees nearly with the text of Vasisht'ha cited by Munishwara, and is confirmed in most instances by the Muhūrta Chintāmeni. The same authority, confirmed with rare exceptions by Vasisht'ha,Śācalya and the Ābharaṇa, is quoted for the number of stars in each asterism. The works of Brahmegupta have not been accessible to me; but the Marichi, an excellent commentary on the Siddhānta Sirōmani, by Munishwara, adduces from that author a statement of the positions of the stars; and remarks, that it is founded on the Brahmesiddhānta, contained in the Viṣṇudhermottara. * Accordingly, I have found the same pa-

* Another Brahmesiddhānta is entitled the Śācalayasūnibita. The author of the Marichi, therefore, distinguishes the one to which he refers.
sage in the Brāhmaśiddhānta, and verified it by the gloss-entitled Vājśand; and I, therefore, use the quotation without distrust. Later authorities, whose statements coincide exactly with some of the preceding (as Ca-
malācāra in the Tatwamāvācā) would be needlessly inserted: but one (Munīśwara in the Siddhānta Sāreśvara), exhibiting the position of the stars differently, is quoted in the annexed table.

The manner of observing the places of the stars is not explained in the original works first cited. The Sūryaśiddhānta only hints briefly, that 'the astronomer should frame a sphere, and examine the apparent longitude and latitude,' * Commentators, † remarking on this passage, describe the manner of making the observation: and the same description occurs, with little variation, in commentaries on the Śinomāni. ‡ They direct a spherical instrument (Gōlayantra) to be constructed, according to instructions contained in a subsequent part of the text. This, as will be hereafter shown, is precisely an armillary sphere. An additional circle, graduated for degrees and minutes, is directed to be suspended on the pins of the axis as pivots. It is named Vādhibālyya or intersecting circle, and appears to be a circle of declination. After noticing this addition to the instrument, the instructions proceed to the rectifying of the Gōlayantra or armillary sphere, which is to be placed, so that the axis shall point to the pole, and the horizon be true by a water level.

The instrument being thus placed, the observer is instructed to look at the star Rēvati through a sight fitted to an orifice at the centre of

* Śphuṇāvāra and Śphuṇāvarahattā, which will be explained further on.
† Rāganāṭha and Bhūd'hrā,
‡ In the Vīṣṇābhāṣya, and in the Marichi.
the sphere; and, having found the star, to adjust by it the end of the
sign Pisces on the ecliptick. The observer is then to look, through the
light, at the śastra star of Asvinī, or of some other proposed object; and
to bring the moveable circle of declination over it. The distance in
degrees, from the intersection of this circle and ecliptick, to the end of
Mina or Pisces, is its longitude (dīkhravaca) in degrees; and the number
of degrees on the moveable circle of declination, from the same inter-
section to the place of the star, is its latitude (vīcēpa) North or South. *

The commentators further remark, that "the latitude, so found, is
(sphūla) apparent, being the place intercepted between the star and the
ecliptick, on a circle passing through the poles; but the true latitude
(asphūlā) is found on a circle hung upon the poles of the celestial sphere,
as directed in another place." The longitude, found as above directed,
is, in like manner, the space intercepted between the origin of the eclipt-
wick and a circle of declination passing through the star: differing, conse-
quently, from the true longitude. The same commentators add; that the
longitudes and latitudes, exhibited in the text, are of the description thus
explained: and those, which are stated in the Sūrya Siddhānta, are ex-
pressly affirmed to be adapted to the time when the equinox did not
differ from the origin of the ecliptick in the beginning of Mēska.

It is obvious, that, if the commentators have rightly understood the

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* Father Petau, and, after him, Dailly, for reasons stated by them (Uranol. Dissert. 2. 2. All. Anc. p. 428.), are of opinion, that the ancient astronomers referred stars to the
Equator; and that Eudoxus and Hipparchus must be so understood, when speaking of the
longitudes of stars. Perhaps the Greek astronomers, like the Hindus, reckoned longitudes
upon the ecliptick intercepted by circles of declination, in the manner, which has been here ex-
plained.

† Bhūd'hara is the most explicit on this point.
text of their authors, the latitudes and longitudes, there given, require correction. It will indeed appear, in the progress of this inquiry, that the positions of stars distant from the ecliptic, as there given, do not exactly correspond with the true latitudes and longitudes of the stars supposed to be intended; and the disagreement may be accounted for, by the circumstance of the observations having been made in the manner above described.

Another mode of observation is taught in the *Siddhānta Sundara* cited and expounded by the author of the *Siddhānta Sarasaṅgha*. A staff adapted to the summit of a gnomon, is directed towards the star on the meridian; and the line of the tube, pointed to the star, is prolonged by a thread to the ground. The line from the summit of the gnomon to the base is the hypothenuse; the height of the gnomon is the perpendicular; and its distance from the extremity of the thread is the base of the triangle. Therefore, as the hypothenuse is to its base, so is the radius to a base, from which the line of the angle, and consequently the angle itself, are known. If it exceed the latitude, the declination is south; or, if the contrary, it is north. The right ascension of the star is ascertained by calculation from the hour of the night, and from the right ascension of the sun for that time. The declination of the corresponding point of the ecliptic being found, the sum or difference of the declinations, according as they are of the same or of different denominations, is the distance of the star from the ecliptic. The longitude of the same point is computed; and from these elements, with the actual precession of the equinox, may be calculated the true longitude of the star, as also its latitude on a circle passing through the poles of the ecliptic.

Such, if I have rightly comprehended the meaning in a single and not very accurate copy of the text, is the purport of the directions gi-
ven in the *Siddhánta Sárvabhauma*: the only work, in which the true latitudes and longitudes of the stars are attempted to be given. All the rest exhibit the longitude of the star's circle of declination, and its distance from the Ecliptick measured on that circle.

I suppose the original observations, of which the result is copied from *Brahmegupta* and the *Sūrya Siddhánta*, with little variation, by successive authors, to have been made about the time, when the vernal equinox was near the first degree of *Mēṣha*. The pole then was nearly seventeen degrees and a quarter from its present position, and stood a little beyond the star near the ear of the Camelopard. On this supposition, it will be accordingly found, that the assigned places of the *Nacṣhatras* are easily reconcileable to the positions of stars likely to be meant.

I shall here remark, that the notion of a polar star, common to the Indian and Grecian celestial spheres, implies considerable antiquity. It cannot have been taken from our present pole-star (*= Ursæ minoris*), which, as Mons. Bailly has observed (Astronomie Ancienne p. 511), was remote from the pole, when Eudoxus described the sphere; at which time, according to the quotation of Hipparchus, there was a star situated at the pole of the world. Bailly conjectures, as the intermediate stars of the sixth magnitude are too small to have designated the pole, that * Draconis* was the star meant by Eudoxus, which had

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*Brahmegupta* wrote soon after that period: and the *Sūrya Siddhánta* is probably a work of nearly the same age. Mr. Bentley considers it as more modern (As. Res. vol. 6): it certainly cannot be more ancient; for the equinox must have past the beginning of *Mēṣha*, or have been near it, when that work was composed.

*Hipparchus*. Comment. on Aratus. Lib. 1. p. 179.
been at its greatest approximation to the pole, little more than four degrees from it, about 1326 years before Christ. It must have been distant, between seven and eight degrees of a great circle, when Eudoxus wrote. Possibly the great star in the Dragon (ζ Draconis), which situated very near to the circle described by the north pole round the pole of the ecliptic, had been previously designated as the polar star.

It was within one degree of the north pole about 2836 years before Christ. As we know, that the idea could not be taken from the star in the tail of Ursa minor, we are forced to choose between Baily's conjecture or the supposition of a still greater antiquity. I should, therefore, be inclined to extend to the Indian sphere, his conjecture respecting that of Eudoxus.

I shall now proceed to compare the Nāṣḥatras with the Manzils of the moon, or lunar mansions.

I. Asvini, now the first Nāṣḥatra, but anciently the last but one, probably obtained its present situation at the head of the Indian asterisms, when the beginning of the Zodiac was referred to the first degree of Mēṣha, or the Ram, on the Hindu sphere. As measuring a portion of the Zodiac, it occupies the first 13° 20' of Mēṣha: and its beginning follows immediately after the principal star in the last Nāṣḥatra (Revati), reckoned, by some exactly, by others nearly, opposite to the very conspicuous one, which forms the fourteenth asterism. Considered as a constellation, Asvini comprises three stars figured as a horse's head; and the principal, which is also the northern one, is stated by all ancient authorities, in 10° N. and 8° E. from the beginning of Mēṣha.

The first Manzil, or lunar mansion, according to the Arabs, is entitled
sheraitán, (by the Persians corruptly called, as in the oblique case, Sheratán), and comprises two stars of the third magnitude on the head of Aries, in lat. 6° 36', and 7° 51', N. & long. 26° 13', and 27° 7'. (Hyde's Ulughbeg p. 58). With the addition of a third, also in the head of the Ram, the asterism is denominated Afhrát. The bright star of the 2d or 3d magnitude which is out of the figure of the Ram, according to Ulughbeg, but on the nose according to Hipparchus cited by this author from Ptolemy, is determined Nātiḥ: it is placed in Lat. 9° 30' N. & Long. 1° 43', and is apparently the same with the principal star in the Indian asterism; for Muhammad of Tizin, in his table of declination and right ascension, expressly terms it the first part of the Sheratán. (Hyde's Com. on Ulugh Beg's tables, p. 97).

Many Pandits, consulted by me, have concurred in pointing to the three bright stars in the head of Aries (α, β, & γ) for the Indian constellation Aswini. The first star of Aries (α) was also shown to Dr. Hunter, at Ujjayini, for the principal one in this asterism; and Mr. Davis (As. Res. vol. 3. p. 226.) states the other two, as those which were pointed out to him by a skilful native astronomer, for the stars that distinguish Aswini. The same three stars, but with the addition of three others, were indicated to Le Gentil, for this constellation (Mem. Acad. Scien. 1772. P. II. p. 209). I entertain therefore no doubt, that Sir W. Jones (As. Res. vol. 2. p. 298.) was right in placing the three stars of Aswini in, and near, the head of the Ram; and it is evident, that the first Nakshatra of the Hindus is here rightly determined, in exact conformity with the first Lunar mansion of the Arabs; although the longitude of α Arietis exceed, by half a degree, that which is deduced, for the end of Aswini, from the supposed situ-
ation of the Virgin's spike opposite to the beginning of this Nashtatra; and although its circle of declination be 18° instead of 8° from the principal star in Revati.

II. Bharani, the second Indian asterism, comprises three stars figured by the Yoni or pudendum muliebre; and all ancient authorities concur in placing the principal and southern star of this Nashtatra in 12° N. The second Manzil, entitled Butain, is placed by Ulugh Beg (Hyde p. 61.) in Lat. 1° 12' & 3° 12'; and this cannot possibly be reconciled with the Hindu constellation. But Muhammad of Tizin (See Hyde's commentary p. 97), affixes to the bright star of Butain a declination of 23° N. exceeding by nearly 2° the declination allotted by him to Natih, or his first star in Sheratain. This agrees with the difference between the principal stars of Aswini and Bharani; and it may be inferred, that some among the Muhammedan astronomers have concurred with the Hindus, in referring the second constellation to stars that form Musca. There were no good grounds for supposing Bharani to correspond with three stars on the tail of the Ram (As. Res. vol. 2. p. 298); and I have no doubt, that the stars, which compose this Nashtatra, have been rightly indicated to me, as three in Musca forming a triangle almost equilateral: their brightness, and their equal distance from the first and third asterisms, corroborate this opinion, which will be confirmed by showing, as will be done in the progress of this comparison, that the Nashtatras are not restricted to the limits of the Zodiac.

III. Critticas, now the third, but formerly the first, Nashtatra, consists of six stars figured as a knife or razor, and the principal and southern star is placed in 41° or 5° N. and in 65 sixths of degrees (or
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10° 50′ from its own commencement, according to the Sūrya sidhānta, or 37° 28′ to 38° from the beginning of Mēṣha, according to the Sidhānta Sīrōmani, and Grahasthāghava, respectively. This longitude of the circle of declination corresponds nearly with that of the bright star in the Pleiades, which is 40° of longitude distant from the principal star of Revati.

The stars, indicated by Ulughbég for Thūrayyā, also correspond exactly with the Pleiades; and these were pointed out to the Jesuit missionaries, as they have since been to every other inquirer, for the third Nacṣhatra. If any doubt existed, Mythology might assist in determining the question; for the Črītticás are six nymphs, who nursed Scanda, the God of war, named from these, his foster mothers, Carticeya or Shānmātura.

IV. We retain on our celestial globes the Arabick name of the fourth lunar mansion Debarán (or with the article, Aldebaran); applied by us, however, exclusively to the bright star called the Bull's-eye; and which is unquestionably the same with the principal and eastern star of Rōhini, placed in 42° or 5° S. & 49° 1/2 E. by the Hindu writers on Astronomy. This Nacṣhatra, figured as a wheeled carriage, comprises five stars, out of the seven which the Greeks named the Hyades. The Arabs, however, like the Hindus, reckon five stars only in the asterism; and Sir W. Jones rightly supposed them to be in the head and neck of the Bull; they probably are α Tauri, agreeably to Mons. Bailly's conjecture (Aft. Ind. p. 129).

Hindu astronomers define a point in this constellation, of some importance in their fanciful astrology. According to the Sūrya śidhānta, when a planet is in the 7th degree of Vṛṣa (Taurus), & has more than two degrees of south latitude, or, as commentators expound the passage, 2° 40'; the planet is said to cut the cart of Rōhini. This is denominated Sacatāraṇa, or the section of the wain. Lalla and the Grahalāghava give nearly the same definition; and it is added in the work last mentioned, that, when Mars, Saturn, and the Moon are in that position (which occurs, in regard to the moon, when the node is eight nacshatzas distant from Pūrana, and might happen in regard to the rest during another Yuga), the world is involved in great calamity. Accordingly, the Purānas contain a legendary story of Dasaśiṭha's dissolving Saturn from so traversing the constellation Rōhini.

V. Mrīgāśiras, the fifth Nacshatra, represented by an antelope's head, contains three stars; the same which constitute the fifth lunar mansion Hakah; for the distance of 10° S. assigned to the northern star of this Nacshatra, will agree with no other, but one of the three in the head of Orion. The difference of longitude (24° to 25°) from Crētīa cor-responds with sufficient exactness; and so does the longitude of its circle of declination (62° to 63°) from the end of Révati; since the true longitude of a Orionis, from the principal star in Révati (‡ Piscium), is 63°. It was a mistake to suppose this asterism to comprise stars in the feet of Gemini, or in the Galaxy (As. Res. vol. 2. p. 298.)

VI. Ádrā, the sixth Nacshatra, consists of a single bright star, described as a gem, and placed in 9° S. by one authority, but in 11° by others, and at the distance of 43° to 4° in longitude from the last asterism. This indicates the star in the shoulder of Orion (α Orionis); not,
as was conjectured by Sir William Jones, the star in the knee of Pollux (As. Res. 2. p. 298).

The sixth lunar mansion is named by the Arabs, Hanâh; and comprises two stars in the feet of the second twin, according to Ulugh Beg, though others make it to be his shoulder (Hyde Com. p. 7. and 44). Muhammad of Tizin allots five stars to this constellation; and the Kâmus, among various meanings of Hanâh, says, that it is a name for five stars in the left arm of Orion; remarking, also, that the lunar mansion is named Taurâ, comprising three stars called Tahyâb. Either way however, the Indian and Arabian asterisms appear in this instance irreconcilable.

VII. The seventh Nashtâra, entitled Punarvasû, and represented by a house, or, according to a Sanscrit work cited by Sir William Jones (As. Res. v. 2. p. 295), a bow, is flated by astronomers as including four stars, among which the principal and eastern one is distant 36° or 32° from the fifth asterism; but placed by all authorities in 6° N. This agrees with (α Geminorum) one of the two stars in the heads of the twins, which together constitute the seventh lunar mansion Zirââ, according to Muhammad of Tusi and Muhammad of Tizin and other Arabian authorities (Hyde on Ulugh Beg p. 43.)

It appears from a rule of Sanscrit grammar, * that Punarvasû, as a name for a constellation, is properly dual, implying, as it may be supposed, two stars. On this ground, a conjecture may be raised, that Punarvasû originally comprised two stars, though four are now aligned to it. Accordingly, that number is retained in the Sâvârsâ Sanskrit.
It may be further observed, that the seventh lunar mansion of the Arab is named Ziraā ul oṣed according to Juhārī and others cited by Hy. (Com. on Ulugh Beg. p. 44); and that the Kamus makes this term to be the name of eight stars in the form of a bow.

Upon the whole, the agreement of the Indian and Arabian constellations is here apparent, notwithstanding a variation in the number of the stars; and I conclude, that Punarvasu comprises, conformably with Sir William Jones's supposition (As. Res. vol. 2. p. 299), stars in the heads of the twins; viz. α, β, Geminorum; and which were indicated to Dr. Hunter by a Hindu astronomer at Ujjain; to which, perhaps, δ and π may be added to complete the number of four.

VIII. Pushya, the eighth asterism, is described as an arrow; and consists of three stars, the chief of which, being also the middlemost, has no latitude, and is 12° or 13° distant from the seventh asterism, being placed by Hindu astronomers in 106° of longitude. This is evidently δ Cancri; and does not differ widely from the eighth lunar mansion Nethrah, which, according to Ulugh Beg and others (Hyde's Com. p. 45), consists of two stars, including the nebula of Cancer. The Indian constellation comprises two other stars, besides δ Cancri, which are perhaps γ and β of the same constellation; and Sir William Jones's conjecture, that it consists of stars in the body and claws of Cancer, was not far from the truth.

IX. The ninth asterism, Aslesha, contains five stars figured as a potter's wheel, and of which the principal or eastern one is placed in 7° S. and, according to different tables, 107°, 108°, or 109°, E. This appears to be intended for the bright star in the southern claw of Cancer (α Cancri,.) and cannot be reconciled with the lunar mansion Tarf or Tarfah,
which comprises two stars (Hyde's Com. p. 8.) near the lion's eye; the
northernmost being placed by Muhammad of Tizin in 24° of N. declina-
tion (Hyde's Com. p. 101). The Jesuit missionaries, if rightly quoted
by Costard (Hist. of Astr. p. 51,) made Aśleśhá correspond with
the bright stars in the heads of Castor and Pollux, together with Pro-
cyon." This is evidently erroneous. Sir William Jones's supposi-
tion, that Aśleśhá might answer to the face and mane of Leo, nearly
concurs with the Arabian determination of this lunar mansion, but dis-
agrees with the place assigned to the stars by Hindu astronomers.
Bail-
ly committed the same mistake, when he affirmed, that Aśleśhá is the
Lion's head. (Astr. Ind. p. 328).

X. The tenth asterism Mag'há contains, like the last, five stars; but
which are figured as a house. The principal or southern one has no
latitude, and, according to all authorities, has 129° longitude. This is
evidently Regulus (= Leonis): which is exactly 129° distant from
the last star in Révati.

According to the Jesuits cited by Costard, Mag'há answers to the
lion's mane and heart; and the tenth lunar mansion of the Arabians,
Jebbak, comprises three (some say four) stars, nearly in the longitude of
the Lion's heart (Hyde's Ulug Beg p. 74 and Com. p. 46.) In this
instance, therefore, the Indian and Arabian divisions of the Zodiac
coincide: and it is owing to an oversight, that Sir William Jones
states the Nacshatra as composed of stars in the Lion's leg and haunch.
It appears to consist of ν ζ ν and v Leonis.

XI. Two stars, constituting the eleventh Nacshatra, or preceding
Phálguni, which is represented by a couch or bedstead, are determined by
the place of the chief star (the northernmost according to the Sūrya

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sidd'hánta) in 12° N. and 144° E. or, according to Brahmegupta, the
Sivómani and the Grahalág'hava 147° or 148° E. They are probably
3 and 0 Leonis; the same which form the lunar mansion Zubrah or
Khertán (Hyde's Ulugh Beg, p. 76 and Com. p. 47).

It may be conjectured that Brahmegupta and Bháscara selected
the southern for the principal star; while the Súrya sidd'hánta took the
northern: hence the latitude, stated by several Hindu authorities,
is the mean between both stars; and the difference of longitude, compared
to the preceding and subsequent asterisms, may be exactly reconciled
upon this supposition.

XII. Two other stars, constituting the twelfth Nácsatrapa, or following
P'hálguni, which is likewise figured as a bed, are ascertained by the place
of one of them (the northernmost) in 13° N. and 155° E. This in-
dicates 0 Leonis; the same which singly constitutes the Arabian lunar
mansion Șerfra (Hyde's Ulugh Beg, p. 78 and Com. p. 47.), though
Muhammad of Tizín seems to hint that it consists of more than one star
(Hyde, p. 102.) By an error regarding the origin of the ecliptick on
the Indian sphere, Sir William Jones refers to the preceding Nácsa-
trapa, the principal star of this asterism.

XIII. Hasta, the thirteenth Nácsatrapa, has the name and figure of a
hand; and is suitably made to contain five stars. The principal one,
towards the west, next to the north-western star, is placed according to
all authorities in 11° S. and 170° E. This can only belong to the con-
stellation Corvus: and accordingly five stars in that constellation (a β γ δ ε
Corvi), have been pointed out to me by Hindu astronomers for this
Nácsatrapa.
DIVISIONS OF THE ZODIAC.

Avvá, the thirteenth lunar mansion of the Arabs, is described as containing the same number of stars, situated under Virgo, and so disposed as to resemble the letter Alif. They are placed by Ulugh Beg in the wing (Hyde's Ulugh Beg, p. 80).

In this instance the Indian and Arabian divisions of the Zodiac have nothing in common but the number of stars and their agreement of longitude. It appears, however, from a passage cited from Sufi by Hyde (Com. p. 82), that the Arabs have also considered the constellation of Corvus as a mansion of the moon.

XIV. The fourteenth Naschatra, figured as a pearl, is a single star named Chitrá. It is placed by the Surya siddhánta in 2° S. and 180° E.; and by Brahmagupta, the Siromani and Graha Lāghava, in 1° 40′ or 2° S. and 183° E. This agrees with the Virgin's spike (α Virginis) and Hindu astronomers have always pointed out that star for Chitrá. The same star constitutes the fourteenth lunar mansion of the Arabs, named from it Simá' ul aážil. Le Gentil's conjecture, that the fourteenth naschatra comprises the two stars 3 and 4 Virginis, was entirely erroneous. And Mons. Bailly was equally incorrect in placing 3 Virginis in the middle of this asterism (Astr. Ind. p. 227).

XV. Another single star constitutes the fifteenth Naschatra, Swáit, represented by a coral bead. The Surya siddhánta, Brahmagupta, the Siromani and Graha Lāghava, concur in placing it in 37° N. They differ one degree in the longitude of its circle of declination, three of these authorities making it 195°, and the other 198°.

The only conspicuous star, nearly in the situation thus assigned to

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Swātī, (and the Indian astronomers would hardly travel so far from the Zodiac to seek an obscure star;) is Arcturus, 33° N. of the ecliptic in the circle of declination, and 19° E. from the principal star of Ṛevatī. I am therefore disposed to believe, that Swātī has been rightly indicated to me by a native astronomer who pointed out Arcturus for this Naṣḥattra. The longitude, stated by Munīśwara (viz. 1½° less than Chitra), indicates the same star; but, if greater reliance be placed on his latitudes, the star intended may be 4 Bootis. At all events, Mons. Bailly mistook, when he asserted, on the authority of Le Gentn., that the fifteenth Naṣḥattra is marked by α Virginis; and that this star is situated at the beginning of the Naṣḥattra (Aft. Ind. p. 139 and 227).

The Indian asterism totally disagrees with the lunar mansion Ghast, consisting of three stars in the Virgin's foot, according to Ulugh Beg (Hyde p. 82. and Com. p. 50); but in, or near, the balance, according to others (ibid).

XVI. Visāchā, the sixteenth Naṣḥattra, consists of four stars described as a festoon. Authorities differ little as to the situation of the principal and northernmost star: placing it in 1°, 1° 20', or 1° 30' S. and in 212°, 212° 5' or 213° E. The latitude seems to indicate the bright star in the southern scale (α Librae), though the longitude disagrees; for this suggests a remote star (possibly ω Librae). I apprehend the first to be nearest the truth; and hence conclude the four stars to be ω, Librae and υ Scorpii.

The sixteenth lunar mansion named Zubanah or Zubāniyah, is according to Muhammed of Tizin (Hyde Com. 104), the bright star in the northern scale (β Librae), which Sir William Jones supposed to be the sixteenth Naṣḥattra.

Father Souciet, by whom Corona Borealis is stated for the asterism
Visécda, is cenured by Sir W. Jones, under an impression, that all the Nacshatras must be sought within the Zodiack. The information, received by Father Soucer, does appear to have been erroneous; but the same mistake was committed by a native astronomer, who showed to me the same constellation for Visécda; and the Nacshatras are certainly not restricted to the neighbourhood of the ecliptick.

XVII. Four flars, (or, according to a different reading, three,) described as a row of oblations, that is, in a right line, constitute the seventeenth Nacshatra, named Amuradha. Here also, authorities differ little as to the situation of the chief and middlemost flar; which is placed in 3°, or 2°, or 1° 45' S. and in 224° or 224° 5' E. This must intend the flar near the head of the scorpion (σ Scorpionis); and the asterism probably comprises β δτ and ρ Scorpionis.

The seventeenth lunar mansion of the Arabs called Iclil or Iclilujebhah, contains four (some say three, and others fix,) flars lying in a straight line. Those, assigned by Ulughe Bēγ (Hyde p. 87) for this mansion, are β δτ Scorpionis.

Here the Indian and Arabian divisions appear to concur exactly; and Sir W. Jones (As. Res. 2. p. 299), as well as the Missionaries cited by Costard (Hist. Afr. p. 51), have apparently understood the same flars; though the latter extend the Nacshatra to the constellation Serpentarius.

XVIII. Jyshtha, the eighteenth Nacshatra, comprises three flars figured as a ring. In regard to this, also, authorities are nearly a-
greed in the position of the principal and middlemost star, placed in 4°, 3½°, or 3° S. and in 229°, 229° 5', or 230° E. This position clearly indicates Antares or the Scorpion's heart (ς Scorpionis); which is also the eighteenth lunar mansion named Kalb or Kalbulākrah. The three stars of the Indian asterism may be ω, π, & τ Scorpionis.

XIX. The nineteenth asterism, Mūla, represented by a Lion's tail, contains eleven stars, of which the characteristic one, the easternmost, is placed in 9°, 8½° or 8° S. and in 241° or 242° E. Although the latitude of υ Scorpionis be five degrees too great, there seems little doubt, that either that, or the star east of it marked λ, must be intended; and this determination agrees with the 18th lunar mansion of the Arabs called Shaulah, consisting of two stars near the scorpion's sting. The Hindu asterism probably includes all the stars placed by us in the Scorpion's tail, vizt. ϵ, ζ, θ, ι, κ, λ, and υ Scorpionis.

XX. The twentieth Nacṣhatra, entitled preceding ᾞshāḍ'ha, figured as an elephant's tooth, or as a couch, consists of two stars, of which the most northern one is placed in 5½°, 5½° or 5° S. and 254° or 255° E. This suits with δ Sagittarii, which is also one of the stars of the twentieth lunar mansion called Naaim. It consists of four, or, according to some authorities, of eight stars. The Indian asterism seemingly comprises δ & ε Sagittarii.

XXI. Two stars constitute the twenty-first asterism, named the subsequent ᾞshāḍ'ha, which is represented by a couch or by an elephant's tooth. The principal star, which also is the most northerly one, is placed in 5° S. and 260°, or 261° E. This agrees with a star in the body of Sagittarius (ς Sagittarii), and the other star is perhaps the one marked 5.
The twenty-first lunar mansion of the Arabians, named Baldah, comprises six stars, two of which are placed by Muhammad of Tizín in Declination 21° & 16°. One of these must be a star in the head of Sagittarius. Some authors, on the contrary, describe the lunar mansion as destitute of stars (see Dr. Com. on Ulugh Beg, p. 9.) At all events, the Hindu and Arabian divisions appear, in this instance, to be but imperfectly reconcilable.

XXII. Three stars, figured as a triangle, or as the nut of the floating Trapa, form the twenty-second asterism, named Abhijit; which, in the modern Indian astronomy, does not occupy an equal portion of the ecliptick with the other Naçhathras, but is carved out of the contiguous divisions. Its place (meaning that of its brightest star) is very remote from the Zodiac; being in 60° or 62° N. The longitude of its circle of declination, according to different authorities, is 265°, 266° 40', or 268°. Probably the bright star in the Lyre is meant. It was shown to Dr. Hunter, at Ujjayini for the chief star in Abhijit; and the same was pointed out to me, for the asterism, by a Hindu astronomer at this place.

The Arabian lunar mansion Zábih, consists of two stars (some reckon four) in the horns of Capricorn, totally disagreeing with the Indian Naçhathra.

XXIII. Sravanã, the twenty-third Naçhathra, represented by three footsteps, contains three stars, of which one, the middlemost, is by all authorities placed in 30° N. but they differ as to its longitude; the Sûrya Siddhânta places it in 280°; Brahmeûpta and the Sirômâni, in 278°;

* Ulugh Beg. p. 94 and Hyde's Com. 54.*
and the *Grahālāghava* in 275°. The assigned latitude indicates the
bright star in the eagle, whence the three may be inferred to be α, β, and
γ Aquilae.

The twenty-third mansion of the moon, called by the Arabs *Balād*,
consists of two stars in the left hand of Aquarius. Consequently the
Arabian and Hindu divisions are here at variance.

XXIV. *Dhanishtā*, the twenty-fourth asterism, is represented by
a drum or tabor. It comprises four stars, one of which (the westem-
most) is placed in 36° N. and, according to the *Sūrya Siddhiṁīnta*,
Brahmegupta and the Siromāni, in 290° E. though the *Grahālāghava* 
state 286° only. This longitude of the circle of declination, and the
distance of the star on it from the ecliptick, indicate the Dolphin, and the
four stars probably are α, β, γ and δ Delphini. The same constellation
is mentioned by the Jesuit missionaries as corresponding to *Dhanishtā* 
(Costard p. 51): and there can be little doubt, that the ascertainment
is correct. The longitude, stated by Munīśvara, (viz. 294° 12')
supports the conclusion, though his latitude (26° 25') be too small.
To determine accurately the position of this *Nacṣṭhātra* is important, as
the solstitial colure, according to the ancient astronomers, passed through
the extremity of it, and through the middle of *Āṣṭha*. 

The twenty-fourth mansion, called by the Arabs *Sāud*, comprises two
stars in Aquarius (β and ε Aquarii); totally disagreeing with the Hindu
division.

XXV. *Satabhīṣṭā*, the twenty-fifth *Nacṣṭhātra*, is a cluster of a hundred
stars figured by a circle. The principal one, or brightest, has no latitude;
or only a third, or at the utmost half, a degree of south latitude; and all
the tables concur in placing it in long. 330°. This will suit best with
Auror. The hundred stars may be sought in the stream from the jar, where Sir William Jones places the *Nacshatra*; and in the right leg of Aquarius.

**Akhbriyah**, the twenty-fifth lunar mansion, is stated to consist of three stars only, which seem to be the three in the wrist of the right hand of Aquarius (*Hyde*’s com. p. 55). However, it appears from Ulugh Beg’s tables, as well as from Muhammad of Tizin’s, that four stars are assigned to this mansion (*Hyde* p. 99. and Com. p. 95).

The Hindu and Arabian asterisms differ, here, less widely, than in the instances lately noticed; and a passage, cited by *Hyde* from Firozabadi, even intimates the circular figure of the constellation (Com. p. 10).

**XXVI.** The twenty-sixth of the Indian asterisms, called the preceding Bhádrapada, consists of two stars represented by a couch or bed, or else by a double headed figure; one of which is placed by Hindu astronomers in 24° N. and 325° or 326° E. The only conspicuous star, nearly in that situation, is the bright star in Pegasus (α Pegasi); and the other may be the nearest considerable star in the same constellation (ζ Pegasi). I should have considered β Pegasi to be the second star of this Nacshatra, were not its yogā or chief star expressly said to be the most northerly. Mukaddem, the 26th lunar mansion, consists of the two brightest stars in Pegasus (α and β);* and thus the two divisions of the Zodiac nearly concur.

**XXVII.** Two other stars constitute the 27th lunar mansion named the subsequent Bhádrapada. They are figured as a twin, or person with

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*Hyde’s Ulugh Beg, p. 53. and Com. p. 34.*

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a double face, or else as a couch. The position of one of them (the most northerly) is 33° or 37° N. and 35° E. I suppose the bright star in the head of Andromeda to be meant; and the other star to be the one in the extremity of the wing of Pegasus (ν Pegasi). This agrees exactly with the 27th lunar mansion of the Arabians, called Muakker. For Ulugh Beg assigns those stars to it (Hyde p. 53. Com. p. 34. and 35).

XXVIII. The last of the twenty-eight asterisms is named Revati, and comprises thirty-two stars figured as a tabor. All authorities agree, that the principal star, which should be the southernmost, has no latitude, and two of them assert no longitude; but some make it ten minutes short of the origin of the ecliptick, viz. 35° 50'. This clearly marks the star on the ecliptick in the string of the fishes (z Piscium); and the ascerta-

The Arabick name of the 28th mansion, Resthā, signifying a cord, seems to indicate a star nearly in the same position. But the constellation, as described by Juhari cited by Golius, consists of a multitude of stars in the shape of a fishe, and termed Betnu'llhūt; in the navel of which is the lunar mansion: and Muhammed of Tizin, with some others, also makes this lunar mansion to be the same with Betnu'llhūt, which appears, however, to be the bright star in the girdle of Andromeda (β Andromedæ); though others describe it as the northern fishe, extending, however, to the horns of the ram (Hyde’s Com. p. 10, 35 and 95). The lunar mansion and Indian asterism are, therefore, not reconcileable in this last instance.

The result of the comparison shows, I hope satisfactorily, that the Indian asterisms, which mark the divisions of the ecliptick, generally consist of nearly the same stars, which constitute the lunar mansions of the
<table>
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<tr>
<th>Table of Nacabatras or Asterisms marking the Moon's path.</th>
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<th>Place of the star in degrees from the center of the Nacabatras:</th>
<th>Place of the star in degrees from the center of the Aries.</th>
<th>Place of the star in degrees from the center of the Taurus.</th>
<th>Place of the star in degrees from the center of the Gemini.</th>
<th>Place of the star in degrees from the center of the Cancer.</th>
<th>Place of the star in degrees from the center of the Leo.</th>
<th>Place of the star in degrees from the center of the Virgo.</th>
<th>Place of the star in degrees from the center of the Libra.</th>
<th>Place of the star in degrees from the center of the Scorpio.</th>
<th>Place of the star in degrees from the center of the Sagittarius.</th>
<th>Place of the star in degrees from the center of the Capricorn.</th>
<th>Place of the star in degrees from the center of the Aquarius.</th>
<th>Place of the star in degrees from the center of the Pisces.</th>
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<th>Distance from the Aries:</th>
<th>Distance from the Taurus:</th>
<th>Distance from the Gemini:</th>
<th>Distance from the Cancer:</th>
<th>Distance from the Leo:</th>
<th>Distance from the Virgo:</th>
<th>Distance from the Libra:</th>
<th>Distance from the Scorpio:</th>
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<th>Distance from the Capricorn:</th>
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| Time longitude, according to the Aries: | Time longitude, according to the Taurus: | Time longitude, according to the Gemini: | Time longitude, according to the Cancer: | Time longitude, according to the Leo: | Time longitude, according to the Virgo: | Time longitude, according to the Libra: | Time longitude, according to the Scorpio: | Time longitude, according to the Sagittarius: | Time longitude, according to the Capricorn: | Time longitude, according to the Aquarius: | Time longitude, according to the Pisces: |
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Arabians: but, in a few instances, they essentially differ. The Hindus have likewise adopted the division of the Ecliptick and Zodiac into twelve signs or constellations, agreeing in figure and designation with those of the Greeks; and differing merely in the place of the constellations, which are carried on the Indian sphere a few degrees further west than on the Grecian. That the Hindus took the hint of this mode of dividing the ecliptick from the Greeks, is not perhaps altogether improbable: but, if such be the origin of it, they have not implicitly received the arrangement suggested to them, but have reconciled and adapted it to their own ancient distribution of the ecliptick into twenty-seven parts.*

In like manner, they may have either received or given the hint of an armillary sphere as an instrument for astronomical observation: but certainly they have not copied the instrument which was described by Ptolemy; for the construction differs considerably.

In the Arabick Epitome of the Almagest entitled Tahvirulmejesti,† the armillary sphere (Zât ul halk) is thus described. "Two equal circles are placed at right angles; the one representing the ecliptick, the other the solstitial colure. Two pins pass through the poles of the ecliptick; and two other pins are placed on the poles of the equator. On the two first pins, are suspended a couple of circles, moving the one

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* According to the longitude of the three brightest stars of Aries, as stated by Ptolemy, viz. 10° 45′, 7° 45′ and 6° 45′ (I quote from an Arabick epitome of the Almagest); the origin of the ecliptick, in the Greek book which is most likely to have become known in India, is 6° 20′ from the star which the Hindus have selected to mark the commencement of the ecliptick.

† By the celebrated Nasiruddin Tusi; from the Arabick version of Is'hâk bin Hûsên, which was revised by Thabit.
within, the other without, the first mentioned circles, and representing two secondaries of the ecliptick. On the two other pins a circle is placed, which encompasses the whole instrument, and within which the different circles turn: it represents the meridian. Within the inner secondary of the ecliptick a circle is fitted to it, in the same plane, and turning in it. This is adapted to measure latitudes. To this internal circle, two apertures, or sights, opposite to each other, and without its plane, are adapted, like the sights of an instrument for altitudes. The armillary sphere is complete when consisting of these six circles. The ecliptick and secondaries are to be graduated as minutely as may be practicable. It is best to place both secondaries, as by some directed, within the ecliptick, (instead of placing one of them without it,) that the complete revolution of the outer secondary may not be obstructed by the pins at the poles of the equator. The Meridian, likewise, should be doubled, or made to consist of two circles; the external one graduated, and the internal one moving within it. Thus the pole may be adjusted at its proper elevation above the horizon of any place. The instrument so constructed consists of seven circles.

"It is remarked, that when the circle, representing the meridian, is placed in the plane of the true meridian, so that it cuts the plane of the horizon at right angles, and one of the poles of the equator is elevated above the horizon conformably with the latitude of the place; then the motions of all the circles round the poles represent the motions of the universe.

"After rectifying the meridian, if it be wished to observe the sun and moon together, the outer secondary of the ecliptick must be made to intersect the ecliptick at the sun's place for that time; and the solstitial colure must be moved until the place of intersection be opposite to the sun. Both circles are thus adjusted to their true places; or if any other
object, but the sun be observed, the colure is turned, until the object
be seen in its proper place, on that secondary referred to the ecliptick
the circle representing the ecliptick, being at the same time in the plane
of the true ecliptick and in its proper situation. Afterwards, the inner
secondary is turned towards the moon (or to any star intended to be ob-
served), and the smaller circle within it, bearing the two sights, is turned,
until the moon be seen in the line of the apertures. The intersection
of the secondary circle and ecliptick is the place of the moon in longi-
tude; and the arc of the secondary, between the aperture and the eclipt-
tick, is the latitude of the moon on either side (North or South).

The same instrument, as described by Montucla from the text of
Ptolemy (I. 3. c. 2.),* consists of six circles: first, a large circle rep-
resenting the meridian; next, four circles united together, representing
the equator, ecliptick and two colures; and turning within the first cir-
cle on the poles of the equator; lastly, a circle turning on the poles of
the ecliptick, furnished with sights and nearly touching, on its concave
side, the circumference of the ecliptick.

The armillary sphere, described by the Arabian epitomiser, differs,
therefore, from Ptolemy's, in omitting the equator and equinoctial
colure, and adding an inner secondary of the ecliptic, which, as well
as the meridian, is doubled.

According to Lalande, the astrolabe of Ptolemy, from which
Tycho Brahe derived his equatorial armillary, consisted only of four
circles: two placed at right angles to represent the ecliptick and solstitial

* Hist. des Math. i. p. 301.
colure; a third turning on the poles of the ecliptic and serving to mark longitudes; and a fourth, within the other three, furnished with sights to observe celestial objects and measure their latitudes and longitudes.

Whether the ancient Greeks had any more complicated instrument formed on similar principles, and applicable to astronomical observations, is perhaps uncertain. We have no detailed description of the instrument, which Archimedes is said to have devised to represent the phenomena and motions of the heavenly bodies; nor any sufficient hint of its construction; nor does Cicero’s account of the sphere exhibited by Posidonius suggest a distinct notion of its structure.

Among the Arabs, no addition is at present known to have been made to the Armillary sphere, between the period when the Almagest was translated, § and the time of Alhazen, who wrote a treatise of

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* Lalande Atron. l. 13. (§ 2279).
† If Claudian’s epigram on the subject of it was founded upon any authority, the instrument must have been a sort of orrery, enclosed in glass.
Vide Claud. epig. Cicero. Tus. Quæs. l. i Nat. Deo. 2. 35.
‡ Cic. Nat. deo. 2. 34.

§ In the Hijira year 212, or A. D. 827, by Alhazen ben Yusef with the aid of Sergius (Montucla 2. p. 304); or rather by Is’hak ben Hunen, whose death is placed about the Hijira year 260 (D’Herbelot p. 456). According to the Caubulzamán, Is’hak’s version was epitomised by Hajaj ben Yusef, by Thabit ben Karrab, and by Nasiruddin Tusi. Other versions, however, are mentioned: particularly one by Hajaj, said to have been corrected first by Hunen ben Is’hak, and afterwards by Thabit; another by Thabit himself; and a third by Muhi ben Yaithyah. A different account is likewise given of the earliest translation of the Almagest, which is ascribed to Abu Hisan and Salamân, who are said to have completed it, after the failure of other learned men, who had previously attempted the translation. Mention is also made of a version
optics, in which a more complicated instrument, than that of Ptolemy, is described. Alhazen's armillary sphere is stated to have been the prototype of Tycho Brahe's; but neither the original treatise, nor the Latin translation of it, are here procurable; and I am therefore unable to ascertain whether the sphere, mentioned by the Arabian author, resembled that described by Indian astronomers. At all events, he is more modern, than the oldest of the Hindu writers whom I shall proceed to quote.†

The construction of the Armillary sphere is briefly and rather obscurely taught in the Sūrya siddhānta. The following is a literal translation.

"Let the astronomer frame the surprising structure of the terrestrial and celestrial spheres.

"Having caused a wooden globe to be made, [of such size] as he pleases, to represent the earth; with a staff for the axis, passing through...

by Ibrāhīm bēn Salat, revised by Hunen. But none of these translations are anterior to the 9th century of the Christian era.

† Adhibuit (Tycho) Armillare quoddam instrumentum, quod tamen commiseri ego postum; et adhibitum omni suisse ante Tychonem ab Alhazeno lib. 7. opt. C. 1. prop. 15 et à Vitell. lib. 10. propos. 49. cujus instrumenti astronomici co locatur ope, atque ufu, (videm instrumentum multiplex armillare apud Tycho. in Mechanicis Astronomicis) eandem elevationem fallam 9 scrupulorum invent, quam per alia, duo diversa instrumenta, completerat.

Battini Apiaria.

‡ He wrote his treatise on optics and other works about the year 1,400:

Bīg. D. II.

† Bhāscara flourished in the middle of the twelfth century; being born, as he himself informs us, in the Sāca year 1036, answering to A. D. 1114. But the Sūrya Sidhānta is more an
the center, and exceeding the globe at both ends; let him place the supporting hoops, as also the equinoctial circle.

"Three circles must be prepared, (divided for signs and degrees,) the radius of which must agree with the respective diurnal circles, in proportion to the equinoctial; the three circles should be placed for the Ram and following signs, respectively, at the proper declination in degrees, N. or S.; the same answer contrariwise for the Crab and other signs. In like manner, three circles are placed in the southern hemisphere, for the Balance and the rest, and contrariwise for Capricorn and the remaining signs. Circles are similarly placed on both hoops for the asterisms in both hemispheres, as also for Abhijit; and for the seven Rishis, Agastya, Brahma and other stars.

"In the middle of all these circles is placed the equinoctial. At the intersection of that and the supporting hoops, and distant from each other half the signs, the two equinoxes should be determined; and the two solstices, at the degrees of obliquity from the equinoctial; and the places of the Ram and the rest, in the order of the signs, should be adjusted by the strings of the curve. Another circle, thus passing from equinox to equinox, is named the ecliptick; and by this path, the sun, illuminating worlds, for ever travels. The moon and the other planets are seen deviating from their nodes in the ecliptick, to the extent of their respective greatest latitudes [within the Zodiac]."

The author proceeds to notice the relation of the great circles before mentioned to the horizon; and observes, that, whatever place be assumed for the apex of the sphere, the middle of the heavens for that

* They are the Colures.
place is its horizon. He concludes by showing, that the instrument may be made to revolve with regularity, by means of a current of water; and hints, that the appearance of spontaneous motion may be given, by a concealed mechanism, for which quicksilver is to be employed. The manner of using this instrument for astronomical observations has been al-
ready explained (p. 326).

More ample instructions for framing an armillary sphere are deli-
vered in the Śidāḥánta śīrōmanī. The passage is too long for insertion in this place, and I reserve it for a separate article, on account of the explanations which it requires, and because it leads to the consideration of other topics, * which cannot be sufficiently discussed in the present essay. A brief abstract of Bhāscara’s description may here suffice. In the cen-
ter he places a small globe to represent the earth encompassed with cir-
cles for the orbits of the planets arranged like the curved lines in a spi-
der’s web. On an axis passing through the poles of the earth, and prolong-
ed on both sides, a sphere, or assemblage of circles, is suspended, by means of rings or tubes adapted to the axis, so that the sphere may move freely on it. This assemblage of circles comprises a horizon and equa-
tor adjusted for the place, with a prime vertical and meridian, and two intermediate verticals (intersecting the horizon at the N. E. and S. W.
and N. W. and S. E. points); as also the equinoctial colure. Another cir-

* Among others, that of the precession of the equinoxes; respecting which different opin-
ions are stated by Bhāscara. It appears from what is said by him, that the notion of a libra-
tion of the equinoxes has not universally prevailed among Hindu astronomers. The correcter opinion of a revolution of the equinoctial points was advanced by some authors, but has not ob-
tained the general suffrage of Hindu writers on astronomy.
circle is suspended within this sphere on the poles of the horizon, apparently intended to measure the altitude and amplitude of an object.

Another sphere or assemblage of circles is in like manner suspended on the pole of the equator. It consists of both colures, and the equinoctial, with the ecliptick adjusted to it; and six circles for the planetary orbits duly adjusted to the ecliptick; as also six diurnal circles parallel to the equinoctial, and passing through the extremities of the signs.

This, though not a complete description of Bhāscara's armillary sphere, will convey a sufficient notion of the instrument for the purpose of the present comparison; and will justify the remark, that its construction differs greatly from that of the instrument specified by Ptolemy.

In the description of the armillary sphere cited from the Sūrya siddhānta, mention is made of several stars not included in the asterisms which mark the divisions of the ecliptick. The following table exhibits the positions of those, and of the few other stars which have been particularly noticed by Hindu astronomers.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Agāśīya</td>
<td>77° S. 87°</td>
<td>76° S. 86°</td>
<td>77° 16' S. 85° 5'</td>
</tr>
<tr>
<td>Luhābaca, or the hunter</td>
<td>40° S. 86°</td>
<td>40° S. 81°</td>
<td>40° 4' S. 84° 36'</td>
</tr>
<tr>
<td>Agni</td>
<td>3° N. 59°</td>
<td>8° 14' N. 57° 4'</td>
<td>8° N. 52°</td>
</tr>
<tr>
<td>Brahmabindaya</td>
<td>3° N. 56°</td>
<td>30° 49' N. 58° 36'</td>
<td>30° N. 52°</td>
</tr>
<tr>
<td>Prachiāasti</td>
<td>39° N. 51°</td>
<td>38° 38' N. 35° 53'</td>
<td>38° N. 57°</td>
</tr>
<tr>
<td>or Brahme</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Āruvaitia</td>
<td>3° N. 83°</td>
<td>3 N. 83°</td>
<td>3° N. 180°</td>
</tr>
<tr>
<td>Āpas</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

† The Sāchya sanhita and Tatwa vivēca agree with the Sūrya siddhānta as to the positions of the first four stars. They omit the other three.
The seven Rishis

According to the Sācalya Sanhitā.

<table>
<thead>
<tr>
<th>Rishis</th>
<th>Degree N.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Črātu</td>
<td>55°</td>
</tr>
<tr>
<td>Pulaḥa</td>
<td>50°</td>
</tr>
<tr>
<td>Pulastya</td>
<td>50°</td>
</tr>
<tr>
<td>A</td>
<td>56°</td>
</tr>
<tr>
<td>Aṅgira</td>
<td>57°</td>
</tr>
<tr>
<td>Vāsishṭha</td>
<td>60°</td>
</tr>
<tr>
<td>Maṛīchi</td>
<td>60°</td>
</tr>
</tbody>
</table>

Here Agastya is evidently Canopus; as Lubaḥaca is Sirius. Brahmachīḍaya seems to be Capella, which was shown, under that Indian name, to Dr. Hunter at Ujjainit. Agni may be the bright star in the northern horn of the bull (β Tauri); Pradjapati is perhaps the star on the head of the waggoner (δ Aurigae). The distances of the three last mentioned stars from the ecliptic do not exactly agree with the places stated; but no conspicuous stars are found nearer to the assigned positions: and it may be remarked, that they are all nearly in the longitude of the Nakṣatra Mrigasiras corresponding to the head of Orion; and that the latitude, assigned to them by Hindu astronomers, is as much too small, as that of Mrigasiras is too great.

The star, mentioned in the Sūrya siddhānta under the name of Āpas or water, is doubtless β Virginis; and Apāmavastra comprises the nebuluous stars in the same constellation, marked b 1, 2, 3.

Astronomers give rules for computing the heliacal rising and setting of the star Agastya, on account of certain religious ceremonies to be performed when that star appears. Varāha Mihiṇḍa says,
"Agastya is visible at Ujjayini, when the sun is 7\° short of the sign Virgo." But he afterwards adds, that the star becomes visible, when the sun reaches Hasta, and disappears when the sun arrives at Rohini." His commentator remarks, that the author has here followed earlier writers; and quotes Parâsara saying: "When the sun is in Hasta, the star rises; and it sets when the sun is in Rohini."* Bhattottapala cites from the five Siddhântas a rule of computation, analogous to that, which will be forthwith quoted from the Bhâswati; and remarks, that three periods of Agastya's heliacal rising are observed, viz. 8th and 15th of Aswina and 8th of Cártha.

The Bhâswati directs the day of Agastya's rising for any particular latitude to be found by the following rule. 'The length of the shadow of a gnomon at a particular latitude, on the day of the equinox, is multiplied by 25; and to the product 900 are added; the sum, divided by 225, gives in signs and degrees the place of the sun, on the day, when Agastya rises or appears in the south, at the close of night.' The commentator adds, that 'the day of the star's setting may be computed by deducting the sum found as above, from 2350; the difference reduced to signs and degrees, is the place of the sun, on the day, when Agastya sets in the southwest.' According to these rules, Agastya in latitude 26° 34', rises when the sun is in 4° 20' and sets when the sun is in 1° 10'.

The Grahâghâva teaches another method of calculation. The length of the shadow of the gnomon is multiplied by 8, and the pro-

* Dr. Prâsâdakîlhaț gâtekârvê rîshi mûgamâlîmû.îti.

‡ In duodecimal parts.
Duft is added to 98 for the sun's place in degrees, on the day when Agaslya rises; or is deducted from 78, to find the sun's place when that star sets. By this rule, the star should rise, in latitude 26° 34', when the sun is at the 26th degree of the lion, and should set when the sun quits the ram. Accordingly, the Bhavishya and the BrahmaVaivarta Puranas ordain oblations for Agaslya three days before the sun reaches the Zodiacal sign Virgo; though the inhabitants of the province of Gaura, as observed in the last mentioned Purana, perform this ceremony three days earlier.

In regard to the passages above quoted, it may be remarked, that the rule, stated in the Bhavswati, implies the distance of three signs, from the beginning of Aries, to Agaslya, and supposes the star to become visible when distant one sign from the sun. But the rule, delivered in the Grahalag'ha, places the star at the distance of 88° from the beginning of Medha, and supposes it visible in the right sphere, when 10° distant from the sun. According to the quotation from Parasara, the right ascension of the star must have been, in his time, not less than 100° reckoned from the beginning of Medha; and the star, rising coinfically, became visible in the oblique sphere, at the distance of 6° from the sun; and disappeared, setting achronically, when within that distance. Making allowance therefore for the star's proper motion, and change of declination and right ascension, it remains probable, that Parasara's rule was framed for the north of India, at a period when the solstitial points were, as stated by that author, in the middle of Aslesha and beginning of Dhanishtha.*

I have purposely reserved for separate consideration the seven Raishis,

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* As. Res. vol. 2. p. 393.
who give name to seven stars in Ursa major; not only because their positions are not stated by Brahmegupta, Bhassara, and the Surya-fidh'anta, but also because the authors, who give their positions, describe to them a particular motion, or variation of longitude, different from other stars, and apparently unconnected with the precession of the equinoxes.

**Varaha Mihira** has a chapter in the *Varahisinha* expressing the subject of this supposed motion of the Rishis. He begins by announcing the intention of stating their revolution conformably with the doctrine of *Vridha Garga*, and proceeds as follows. “When king Yudhisthira ruled the earth, the Munis were in Magha, and the period of the era of that king is 2526 years. They remain for a hundred years in each asterism, being connected with that particular Nakshatra, to which, when it rises in the east, the line of their rising is directed.”

The commentator, Bhattotpala, supports the text of his author by quotations from *Vridha Garga* and Casyapa. “At the junction of the Cati and Dwapar ages,” says Garga, “the virtuous sages who delight in protecting the people, flood at the asterism, over which the Pitris preside.” That is at Magha. “The mighty sages,” says

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*According to a different reading noticed by the commentator, the concluding hemistich signifies “they constantly rise in the northeast; together with Arundhati.”*
CASYAPA, "abide during a hundred years in each asterism, attended by the virtuous ARUND'HATI."

The author next states the relative situation of the seven RISHIS, with ARUND'HATI near her husband VASISHT'HÁ; and the remainder of the Chapter is devoted to astrology.

The revolution of the seven RISHIS, and its periods, are noticed in Chapter VI. The following passage is from the ŠRI BHĀGAVATA.*

"From your birth (PARIGSHIT is addressed by SÚCA) to the inauguration of NANDA, 1115 years will elapse.

"Of the seven RISHIS, two are first perceived, rising in the sky; and the asterism, which is observed to be at night even with the middle of those two stars, is that, with which the RISHIS are united, and they remain so during a hundred years of men. In your time, and at this moment, they are situated in Maghá.

"When the splendor of VISHNU, named CRISHNA, departed for heaven, then did the Cali age, during which men delight in sin, invade the world. So long as he continued to touch the earth with his holy feet; so long the Cali age was unable to subdue the world.

"When the seven RISHIS were in Maghá, the Cali age comprising 1200 [divine] years began; and when, from Maghá, they shall reach Purváśhád'hi, then will this Cali age attain its growth under NANDA and his successors."


† 43200 common years.
The commentator Sridhara Swami remarks, that the constellation, consisting of seven stars, is in the form of a wheeled carriage, Marichi, he observes, is at the extremity; and next to him, Vasishta in the arched part of the yoke; and beyond him Angiras: next to whom are four stars in a quadrangle; Atri at the northeast corner; south of him Pulashtya; next to whom is Pulaha; and Cratu is north of the last. Such being their relative position, the two stars, which rise first, are Pulaha and Cratu; and whichever afterism, is in a line south from the middle of those stars, is that with which the seven Rishis are united; and they so remain for 100 years.

A similar passage is found in the Vishnu Purana*, and a similar exposition of it is given by the commentator Ratnagarbha; but the period, there stated to elapse between the birth of Paricshit and the inauguration of Nanda, is 1015 years only.

The Matsya Purana contains a passage to the like effect; but allows 1050 years from the birth of Paricshit to the inauguration of Mahapadma: and the seven Rishis are stated as being in a line with the constellation sacred to fire (that is Crulica), 836 years later, in the time of the Andhra kings.

In the Brahma-siddhanta of Sacraka, denominated from its reputed author Sacraka sanhita, the supposed motion of the seven Rishis is thus noticed:† "At the commencement of the yuga, Cratu was near the star sacred to Vishnu (Sravaná), at the beginning of the afterism. Three degrees east of him, was Pulaha; and Pulashtya, at ten degrees.

* Part 4. Ch. 2. v. 32, &c.
† Preface 2. ch. 2.
from this; Atri followed at three degrees from the last; and Angiras, at eight degrees from him; next came Vāsish'tha, at the distance of seven degrees; and lastly Marīchi at ten. Their motion is eight lptas (minutes) in a year. Their distances from the ecliptick, north, were respectively 55°, 50°, 50°, 56°, 57°, 60° and 60°. For, moving in the north into different positions, the sages employ 2700 years in revolving through the assemblage of asterisms: and hence their positions may be easily known at any particular time."

Lalla, cited by Munīśwara in his gloss on the Sirōmani, says "If the number of years of the Cali age, less fourteen, be divided by 100, the quotient, as the wife declare, shows the asterisms traversed by Marīchi and other celestial sages, beginning from the asterism of Viranchi (Brahma)."

Here Lalla is generally understood to mean Rōhini, which is sacred to Prajāpati (or Brahmac). But Munīśwara has remarked, in another place, that Lalla may intend Abhijit which is sacred to Vid'hi or Brahmac; and consequently may mean Śravaṇā, of which Abhijit forms a part: and thus Lalla and Sācalya may be reconciled.

Most of the commentators on the Sūrya Siddhānta and Sirōmani are silent on the subject of the seven Rishis. But Nṛsinha, in his Vārtica to the Vāsana Bhāṣya or gloss on the Sirōmani, quotes and expounds the Sācalya Sanhitā, and rejects Varāha's rule of computation, as disagreeing with Purānas. Munīśwara, in his commentary on the Sirōmani, cites some of the passages above noticed, and remarks, that Bhāscarā has omitted this topic on account of contradictory opinions concerning it, and because it is of no great use.
The same author, in his own compilation entitled *Siddhânta Sarvabhauma*, has entered more fully into this subject. He observes, that the seven *Râhûs* are not, like other stars, attached by spikes to the solid ring of the ecliptic, but revolve in small circles round the northern pole of the ecliptic, moving by their own power in the ethereal sphere above Saturn, but below the sphere of the stars. He places the *Râhûs* in the same relative positions, which *Sâcalya* had assigned to them; slates in other terms the same distances from the ecliptic, and the same annual motion; and directs their place to be computed by deducting 600 from the years of the *Cali* age, doubling the remainder and dividing by fifteen: the quotient, in degrees, is divided by 30, to reduce it into signs. *Muniśwara* supports this mode of calculation on the authority of *Sâcalya*, against *Varâha Mihira* and *Lalla*; and affirms, that it agrees with the phenomena, as observable at the period of his compilation. It appears, however, to be a correction of *Sâcalya*’s rule.

*Camâlacara*, in the *Tatwâviveca*, notices the opinion delivered in the *Siddhânta Sarvabhauma*; but observes, that no such motion of the stars is perceptible. Remarkning, however, that the authority of the *Purânas* and *Sankitâs*, which affirm their revolution, is incontestable, he reconciles faith and experience by saying, that the stars themselves are fixed; but the seven *Râhûs* are invisible deities, who perform the stated revolution in the period specified.

If *Camâlacara*’s notion be adopted, no difficulty remains: yet it can hardly be supposed, that *Varâha Mihira* and *Lalla* intended to describe revolutions of invisible beings. If then it be allowed, that they have attributed to the stars themselves an imaginary revolution grounded on an erroneous theory, a probable inference may be thence drawn as to the period when those authors lived, provided one position be conce...
ded: namely, that the rules, stated by them, gave a result not grossly wrong at the respective periods when they wrote. Indeed it can scarcely be supposed, that authors, who, like the celebrated astronomers in question, were not mere compilers and transcribers, should have exhibited rules of computation, which did not approach to the truth, at the very period when they were proposed.

If this reasoning be admitted, it would follow, that Varāhamihira composed the Vṛahā sanhitā about 2800 years after the period assigned by him to the commencement of the reign of Yudhishtīra, or near the close of the third century, after the expiration of Yudhishtīra's era as defined by him. For the circle of declination passing between Cratu and Pulaha (the two first of the seven Riṣis), and cutting the ecliptick only 2° short of the beginning of Maghā, was the solstitial colure, when the equinox was near the beginning of Cricicā; and such probably was the reason of that line being noticed by ancient Hindu astronomers. It agrees with the solstitial colure on the sphere of Eudoxus, as described by Hipparchus. A similar circle of declination, passing between the same stars, intersected the ecliptick at the beginning of Maghā, when the

* "Hipparchus tells us, that Eudoxus drew the colure of the sollicity, through the middle of the Great Bear; and the middle of Cancer; and the neck of Hydrus; and the star between the poop and mast of Argo; and the tail of the South Fish; and through the middle of Capricorn, and of Sagitta; and through the neck and right-wing of the Swan; and the left hand of Cepheus; and that he drew the equinoctial colure through the left-hand of Arctophylax; and along the middle of his body; and cross the middle of Chelae; and through the right-hand and fore-knee of the Centaur; and through the flexure of Eridanus and head of Cetus; and the back of Aries across, and through the head and right-hand of Perseus."

solar colure was at the middle of Aśva; and a like circle passed through the next asterism, when the equinox corresponded with the first point of Mēṣha. An astronomer of that period, if he were apprized of the position assigned to the same stars by Garga reputed to have been the priest of Crīṣna and the Pāndus, might conclude with Varāha mihira, that one revolution had been completed, and that the stars had passed through one Nāṣhatra of the second revolution. In corroboration of this inference respecting the age of Varāha mihira's astrological treatise, it may be added, that he is cited by name in the Pancha tantra, the original of the fables of Pālpay, which were translated for Nushirvān more than 1200 years ago.*

The theory being wholly unfounded, Varāha mihira's rule of computation soon ceased to agree with the phenomena, and other rules have been successively introduced by different authors, as Lalla, Sācalya and lastly Munīśwara; whose rule, devised less than two hundred years ago, does not yet grossly betray its insufficiency.

This pretended revolution of the stars of Ursa Major is connected with two remarkable epochas in Indian chronology; the commencement of the Cali yuga, or sinful age, in the reign of Yudhīshthīra; and its prevalence, on the failure of the succession of Gṛhatriya princes, and establishment of a different dynasty, 1015 years after the birth of Parīcshīt, according to the Vishnu Purāṇa; or 1115 years, according to the Bhāgavata; but 1498 years, if a correction, which has been proposed by Sridhara Swāmi and some other commentators, be admitted. This

subject has been already noticed by Capt. Wilford in his essay on Vicrama-máditya; and it is, therefore, unnecessary to enlarge upon it in this place.

It has been noticed, towards the beginning of the present essay, that the principal star of each Nașśhástra, is denominated Yóga-tára. Perhaps it may not be superfluous to caution the reader against confounding these yóga stars with the yóga's, of which a list is inserted in Sir W. Jones's Treatise on the Indian Zodiac.* They are mentioned by him as divisions of the ecliptick; but it will presently appear, that they cannot in strictness be so denominated. Their principal purpose regards astrology; but they are also employed in regulating certain moveable feasts; and they are of such frequent use, that every Indian Almanack contains a column specifying the yóga for each day, with the hour of its termination.

The yóga is nothing else than a mode of indicating the sum of the longitudes of the sun and moon. The rule for its computation, as given in the Súrya Siddhánta, Bháswati and Graha lághava, directs, that the longitude of the sun be added to the longitude of the moon; and the sum, reduced to minutes, is to be divided by 800 (the number of minutes in 13° 20'); the quotient exhibits the elapsed yóga's, counted from Viśñucumbha.† It is obvious therefore, that the yóga's are twenty-seven divisions of 360° of a great circle, measured upon the ecliptick.

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* As Res. vol. 2. p. 302.
† 1 Viśñucumbha. 2 Príti. 3 Áyushmat. 4 Saubhágya. 5 Sóbhana. 6 Atiganda. 7 Sucarman. 8 Dhríti. 9 Súla. 10 Ganda. 11 Vṛiddhi. 12 Dhrupa. 13 Vyágháta. 14 Heríhana. 15 Vajra. 16 Siddhí. 17 Vyatisrí. 18 Varíyas. 19 Parigha. 20 Síva. 21 Siddhí. 22 Sádhya. 23 Subha. 24 Suci. 25 Brahma. 26 Aindra. 27 Vaidhríti.

S 4
But, if they be represented on a circle, it must be a moveable one in the plane of the eclipptic.

Astrologers also reckon twenty-eight yogas, which correspond to the twenty-eight Nacshotras or divisions of the moon’s path; varying, however, according to the day of the week. As the Indian Almanacks sometimes appropriate a column to the moon’s yoga for each day, I shall insert in a note a list of these yogas, with the rule by which they are determined.*

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* 1 Ānanda. 2 Cāladanda. 3 Dhūmra. 4 Prajāpati. 5 Saumya. 6 Dhwāncisha. 7 Dhwaja. 8 Śrivatā. 9 Vajra. 10 Mudgara. 11 Ch’harra. 12 Maitra. 13 Māna. 14 Padma. 15 Lambuca. 16 Utpāta. 17 Mrityu. 18 Cāna. 19 Sidd’hi. 20 Subha. 21 Amrita. 22 Mufula. 23 Gada. 24 Mstanga. 25 Rāchha. 26 Chara. 27 St’hira. 28 Pravardha.

The foregoing list is extracted from the Ratnamāla of Śripati. He adds the rule by which the yogas are regulated. On a Sunday, the Nacshotras answer to the yogas, in their natural order; viz., Aświni to Ānanda, Bhaṭarṇi to Cāladanda &c. But, on a Monday, the first yoga (Ānanda) corresponds to Meṣeṣtras, the second to Ardrā, and so forth. On a Tuesday, the Nacshotra, which answers to the first yoga, is Aśleṣhā; on Wednesday, Haṭṣṭa; on Thursday, Anuvrādhā; on Friday, Uttarāśaḥdha; and on Saturday, Satebhishā.

Almanacks usually contain another set of astrological divisions of the lunar month, which it may be proper to explain. They are denominated Carana; and consist of seven variable and four invariable, as in the subjoined list:

<table>
<thead>
<tr>
<th>Variable Caranas</th>
<th>Invariable Caranas</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Bālava.</td>
<td>2. Chatushpāḍ.</td>
</tr>
<tr>
<td>4. Taṭṭṭa.</td>
<td>4. Čintugna.</td>
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<tr>
<td>5. Gara.</td>
<td></td>
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<tr>
<td>6. Vanij.</td>
<td></td>
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<tr>
<td>7. Viśki.</td>
<td></td>
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</tbody>
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Another topic, relative to the Zodiac, and connected with astrology, remains to be noticed. I allude to the Dréshcánas answering to the Decani of European Astrologers. The Hindus, like the Egyptians and Babylonians, from whom that vain science passed to the Greeks and Romans, divide each sign into three parts, and allot to every such part a regent exercising planetary influence under the particular planet whom he there represents.

The description of the 36 Dréshcánas is given towards the close of Varáhamihira's treatise on the casting of nativities, entitled Vrihat Jātaka. It is here translated conformably with the gloss of Bhattot-Pala: omitting, however, some variations in the reading of the text, which are noticed by him; but which can be of no use, unless occasion should arise for reference to them in comparing the description of the Dréshcánas with some amulet or ancient monument in which the Decani may be supposed to be figured. Even for that purpose, the following description will probably suffice.

1 [Mars] A man with red eyes, girt round the waist, with a white cloth, of a black complexion, as formidable as able to protest, holds a raised battle axe.

2 [The Sun] A female clad in red apparel, with her mind fixed on wearing ornaments, having a mare's head, and a belly like a jar, thirstily

They answer successively to half a Tithi or lunar day; Cintughna being always assigned to the first half of the first Tithi; and the variable Caranas afterwards succeeding each other regularly, through eight repetitions: they are followed by the three remaining invariable Caranas, which conclude the month; Chatuhpád and Nága appertaining to Amávasyá or the new moon, and Sasun being appropriated to the latter half of the preceding Tithi.
and resting on one foot, is exhibited by Yavanā as the figure of the Dṛśṭadāna in the middle of Mēsha.*

3 [Jupiter] A fierce and wrathful man, conversant with arts, of a tawny complexion, solicitous of action, but unsteady in his resolves, holds in his hands a raised flock, and wears red clothes. He is the third in the tripartite division of Mēsha.

4 [Venus] A woman with hair clipped and curled, a body shaped like a jar, her clothes burnt, herself thrify, disposed to eat, and fond of ornaments: such is the figure of the first in Viṣṇabha.

5 [Mercury] A man with the head of a goat, and a shoulder like a bull, clothed in dirty apparel, skilful in regard to the plough and the cart, acquainted with field, grain, house, and kine, conversant with arts; and, in disposition, voracious.

6 [Saturn] A man with a body vast as an elephant’s, and feet great as a Sarabha’s,† with white teeth and a tawny body, his mind busied upon the wool of wild sheep, occupies the extremity of the sign Taurus.

7 [Mercury] Such as are conversant with the subject, declare the first in the tripartite partition of the third sign, to be a woman fond of working with the needle, beautiful, delighting in ornaments, childless, amorous, and with her arms elevated.

8 [Venus] In the middle of the sign Gemini is a man, with the face

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* Bhattotpāla expounds this “declared by Yavanāchārya” यवनाचार्यः कषितम्

† A monster with eight legs, who destroys elephants.
of a Garuda, * standing in a grove: he is an archer clad in armour, and holds a bow, he meditates on sport, his children, ornaments and wealth.

9 [Saturn] At the end of the sign Gemini is a man decorated with ornaments, having as many gems as the ocean contains; clad in armour and furnished with bow and quiver; skilled in dance, musick and song, and practising poetry.

10 [The Moon] The wife declare the first in Cancer to be an animal with the body of an elephant, the feet of a Sarabha, a boar's head and horse's neck, standing in a grove under a Sandal-wood tree,† and upholding leaves, root and fruit.

11 [Mars] In the middle of the sign Cancer, a woman, in prime of youth, with blossoms of lotos on her head, attended by a serpent, cries while standing in a forest, resting against the branch of a Paläsa ‡ tree.

12 [Jupiter] Last in Cancer is a man with his head inclined; he is decorated with golden ornaments, and, embarking on a vessel and encompassed by serpents [twined round him,] he traverses the ocean to seek ornaments for his wife.

13 [The Sun] A vulture and shakal stand on a cotton tree; § a dog is near: and a man, in a squalid dress, laments for his father and mother: this representation is pronounced to be the first of the Lion.

14 [Jupiter] A man formed like a horse, bearing on his head a garland of yellowish white flowers, wears a leather dress: unconquered

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* An eagle: or else a gigantick crane. Perhaps a vulture.

† Santalum Album five Sirium myrtifolium.

‡ Butea frondosa.

§ Bombax heltaphylum.
like a Lion; armed with a bow; and distinguished by a hooked nose, he is placed in the middle of Leo.

15. [Mars] The third in the tripartite division of Leo, is a man having the head of a bear, with a long beard and curled hair; in disposition similar to an ape; and holding a staff, fruits and flesh.

16. [Mercury] A damsel, bearing a jar filled with blossoms, (her person clothed in apparel soiled with dirt), solicitous for the union of dress with opulence, is going towards the family of her spiritual parent: such is the first of Virgo.

17. [Saturn] A man of a dark complexion, with a cloth on his head, holds a pen, and is casting up accounts of receipts and disbursements: he bears a large bow, and his body is covered with hair: he is placed in the middle of the sign.

18. [Venus] A woman of a fair complexion, dressed in bleached silk, tall, holding in her hand a jar and ladle; is devoutly going towards a temple of the gods: the wise pronounce this to be the last of Virgo.

19. [Venus] A man is proceeding along the middle of a highway; holding a balance, and having weights in his hand: he is skilled in measuring and meting, and meditates on commodities and their prices. The Yavanās declare this form to be first of Libra.*

20. [Saturn] A man with the head of a vulture, carrying a water pot, is anxious to proceed, being hungry and thirsty; in thought, he visits his wife and son. He is middlemost of the balance-bearer (Libra).

*नरूपव दनियावनः प्रथमानुलायः: This might signify "Yavana declares;", for the plural is used in Sanskrit respectfully; and Bhātīyapāla has before expounded घ्वन as intending Yavanāchārya; but a different explanation occurs a little lower.
21. **[Mercury]** A man, in figure like an ape, adorned with gems, bearing a golden quiver and armour, and carrying fruits and flesh, is scouring deer, in a forest: such is the figure exhibited by the Yavanas.*

22. **[Mars]** A woman, without clothes or ornaments, comes from the great ocean, to the shore; she has fallen from her place; round her feet are serpents entwined; but she is pleasing. Such is the first of the sign Scorpio.

23. **[Jupiter]** A woman, with a body like a tortoise and a jar, and with serpents entwined round her person, is solicitous to prepare local comforts for her husband. This figure the wise pronounce to be the middle one of Scorpio.

24. **[The Moon]** The last of the Scorpion is a lion with a large and stooping head resembling that of a tortoise; he guards the place where Sandal-wood grows, terrifying dogs, deer, boars and shakals.

25. **[Jupiter]** An animal with the body of horse, and head of a man, holding a large bow, stands near a hermitage and devoutly guards the implements of sacrifice: such is the first of the three divisions of the bow (Sagittarius).

26. **[Mars]** A pleasing female, of golden complexion like the Champaca,† moderately handsome, sits on a throne, distributing marine gems. This is described as the middle division of the bow.

27. **[The Sun]** A man with a long beard, of a complexion yellow

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* Which Bhattotpal expounds "declared by the ancient Yavanas."

† Michelia Champaca.
like the Chumpaca, is sitting on a throne with a staff in his hand: he wears silk raiment and a deer's skin. Such is the third figure of the ninth sign.

48. [Saturn] A man, of a terrible aspect, with the body of a hog, hairy, having tulus like a Macara,* holds a yoke, a net and fetters. He is first of Capricorn.

29. [Venus] In the middle of Macara is a woman skilled in music, with eyes large like the petals of the lotus, and with a dark complexion. She seeks various things: she is decorated with jewels; and wears metalic ornaments in her ears.

30. [Mercury] A man, shaped like a Cinnara,† clothed in a woolen cloth, and furnished with quiver, bow and armour, bears on his shoulder a jar adorned with gems: he is last of the sign Macara.

31. [The Sun] The first of the jar (Aquarius) is a man with the head of a vulture, clothed in silk and wearing an antelope's hide with a woolen cloth: his mind is busied in obtaining oil, ardent spirits, water and food.

32. [Mercury] In a burnt carriage, a woman clad in foiled apparel, bearing vessels on her head, is collecting metals in a forest containing cotton trees.

33. [Venus] A man of a dark complexion, with hairy ears, adorned with a diadem, carries and transports vases with articles of metal, and with bark, leaves, gum and fruit. He is last of Cumbha.

* A sea monster. Perhaps the Narwhal may be intended.
† A human figure with the head of a horse.
34. [Jupiter] The first of the fifth [Pisces] navigates the seas in search of ornaments for his wife: he has jewels, and his hands are full of vessels used in sacrifice, together with pearls, gems, and shells.

35. [The Moon] A woman, surpassing in complexion the blossom of the Champaca, ascends a ship with lofty masts and flags; and approaches the shore of the sea, accompanied by her retinue. This is declared by to be the second in the tripartite division of Mina.

36. [Mars] Near a cavern, in a forest, a naked man, with serpents entwined round his body, and tormented by robbers and fire, laments. He is the last of the fifth.

Arabian astronomers in like manner divide each sign of the Zodiac into three parts, denominated Wojah (میه) or in the plural Wujuh (میه), which severally belong to the different planets * thence called Rab ul wojeh. The proper import of the term میه is face or countenance; agreeing with the Greek πρόσωπον, which is similarly employed in this acceptation.†

The near correspondence of the Dréshdánas with the Decani of Roman authors and Δεκαυς of Grecian writers will be evident from the following passage of Manilius, supported by quotations from other authors, which I shall insert on the faith of Saumaíse;‡ the original works, from which they are taken, not being here procurable.

* In the following order, beginning from Aries: viz. Mars, the Sun, Venus, Mercury, the Moon, Saturn, Jupiter, Mars, the Sun, &c.

† Firmici Mathesii seu Altron. vide infra.

‡ Salmaísi Pliniane Exercitaciones. p. 652.
Manilius says *

Quam partem decimam dixisse Decania gentes;
A numero nomen postum est, quod partibus alta
Condita tricenis propriâ sub forti seruntur,
Et tribuint denas in sc coacunibus altiris,
Inque vicem terris habitantur sidera Signis.

Hephestion expressly declares, † that "each sign of the Zodiac is divided into three Decani comprising ten degrees each: the first division of Aries is named Chontare; the second Chontachre, and the third Sicet."

Firmicus differs in the names, and does not allow ten complete degrees to each Decanus. Thus, in the sign Aries, the three first degrees are, according to him, unappropriated; the five next belong to the first Decanus named Asitan; the next nine are vacant; and the four following appertain to the second Decanus Senacher; five degrees are again unoccupied; and the four last belong to the third Decanus Sentacher. ‡

We learn from Pseillus § that the several Decani were figured with different attributes and dresses; and, from Demophilus and Firmicus || that they represented the planets. The first appertained to Mars; the se-

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* I. 4. 298—302.
† κεὶ είναι βε κοτέος κοτίνεις, βε δε δέκατος κολικός, βε τρίτος ετελ.
‡ Salmassd. Phil. Exerc. p. 653.
§ οἵ οικοὶ ἐκ τῶν ἱδίων περί καταλεγμένοι Δικαναὶ κοτιλομοῦσθε, ὥς μεν κατέκομπην πει
λευκών, ὥς οἷος οἱ περὶ τῷ δεκατάλογῳ ἔλεγμον ἡκασμα. ἄν οἳ τά αὐτή καὶ τά σχήματα διακολαγίου εὐγλύψους
Φειδώνας ἀποτρίπτηκα αἰχήμαν φαινεται. ἰδίως μεν ὁν οἱ Τεῦνος καὶ ὁι οἰκιὸν περιτεῖκ
τέ μετέχει.
|| Primum πρῶτος εἶτι planeta cujus signum est: secundum περὶων planeta sequens: et
sec deinceps. Aries est Mariis primum πρῶτος, secundum Solis, tertium Veneris, juxta ser-
om errantium. This agrees precisely with the Arabian 7,9.
cond to the Sun; and the third to Venus (the Hindu author says Jupiter).

This astrological notion was confessedly received from foreign nations. The doctrine seems to be ascribed by Firmicus to Nekepsos king of Egypt;* and Pselius cites a Babylonian author, whom he calls Teucer; and who is also noticed by Porphyrius: besides, the names of the Decani, stated by Hephæstion and Firmicus, are decidedly barbarous. It was not, therefore, without reason, that Saumaise and Kircher fought a derivation of the word Decanus itself from a foreign language. It cannot be deduced, as Scaliger proposes, from the similar term for an inferior officer commanding ten men;† since this office and its designation were first introduced later than the time of Manilius, by whom the astrological term is employed; and Porphyrius expressly affirms that the word was used by those whom he denominates "ancients."‡ Huet, not concurring in either of the opinions abovementioned, supposes the term to have been corruptly formed by the astrologers of Alexandria from the Greek numeral with a Latin termination.§ If this be admitted, it still remains not improbable that some affinity of sound, in the Egyptian or in the Chaldaick name, may have suggested the formation of this corrupt word.

The Sanscrit name apparently comes from the same source. I do not suppose it to be originally Sanscrit; since, in that language, it bears no etymological signification. For the same reason, it is likely, that the astrological doctrine itself may be exotick in India. One branch of

* Sic et Nekepsos Ægypti justissimus Imperator, et Astrologus valde bonus, per ipsos Decanos omnia vitia valetudinariaeque colletit, ostendens quam valetudinem quis Decanus essiceret, &c.
† Erant Decani denis millibus propositi. Veget. a. 8.
‡ Ο'υς τα υπακευς δενανος αυ τοπανος.
§ Huetii animadversiones ad Manilium. Lib. iv. v. 198.
astrology, entitled Tējaca, has been confessedly borrowed from the Arabians: and the technical terms used in it, are, as I am informed by Hindu astrologers, Arabick. The casting of nativities, though its practice is of more ancient date in India, may also have been received from Western astrologers; Egyptians, Chaldeans, or even Greeks. If so, it is likely, that the Hindus may have received astronomical hints at the same time.

By their own acknowledgment, * they have cultivated astronomy for the sake of astrology; and they may have done so, with the aid of hints received from the same quarter, from which their astrology is derived. In the present instance Varāha Mihira himself, as interpreted by his commentator, quotes the Yavanas (meaning perhaps Grecian authors), in a manner which indicates, that the description of the Drēścānas is borrowed from them.

The name of Yavanāchārya, who is cited by Bhattachalpa, would not be alone decisive. He is frequently quoted by Hindu astronomers: and it is possible, though by no means certain, that, under this name, a Grecian or an Arabian author may be intended. To determine that point, it will be requisite (unless the work attributed to him be recovered) to collect all the passages, in which Yavanāchārya is cited by Sanscrit authors; and to compare the doctrines ascribed to him with those of the Grecian and Arabian writers on Astronomy. Not being prepared for such a disquisition, I shall dismiss this subject, for the present, without offering any positive opinion on the question, which has been here proposed.

* Bhāscara expressly says "By ancient astronomers, the purpose of the science is declared to be judicial astrology; and that, indeed, depends on the influence of configurations; and these, on the apparent places of the planets." Gāḍāḥyāya. i. v. 6.
VII.

On Olibanum or Frankincense.

By H. T. Colebrooke, Esq.

It is generally agreed, that the Gum-resin, called Olibanum, is the Frankincense which was used by the Ancients in their religious ceremonies. But there is not the same agreement as to the plant supposed to produce it. Linnaeus has referred it to a species of Juniper;* and accordingly botanists of his school, † and the Chemical writers, ‡ concur in affirming, that Olibanum is the produce of the Lycian Juniper. But this tree is native of the south of France, as well as the Levant and Siberia: and the French Botanists deny, that it yields the resinous Gum in question; § and remark, that Linnaeus made the assertion without proof. Their remark is, I believe, well founded. No proof appears to have been alleged; and both Niebuhr and Bruce considered it as an undecided question, which they endeavoured, though unsuccessfully, to investigate.|| I therefore apprehend, that the evidence, which will

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* His pupil Gahn, in a treatise on officinal plants, written and published in 1753 and inserted in Fund. Bot. vol. 2, has so stated it, without specifying the species. This was probably grounded on the Materia Medica of Linnaeus published in 1749. Murray cites that work of Linnaeus, for the observation, that it is yet uncertain whether Olibanum be produced from the Juniperus Lycia. Appar. Medic. T. 1. p. 55.

† Martyan's Botan. Dict.


§ Les botanistes ignorent quel est l'arbre d'où découle cette résine précieuse. Linnaeus a avancé, sans preuve, qu'elle est produite par une espèce de genévrier.


|| Niebuhr says "We could learn nothing of the tree, from which incense distills; and Mr. Forskål does not mention it. I know, that it is to be found in a part of Hadramaut, where it is called Oliban." (Eng. Transl. vol. 2. p. 356).
be adduced for a different tree, is not opposed to any arguments of strength in favour of the Lycian Juniper.

A great degree of obscurity has always hung over this subject. We learn from Theophrastus and from Pliny, * that the Greek writers differed in their description of the tree; Pliny adds, that the information contained in the volume addressed by King Juba to C. Caesar, grandson and adopted son of Augustus, was inconsistent with other accounts; and further remarks, that the Ambassadors, who came to Rome from Arabia in his own time, had rendered the whole matter more uncertain than ever. The information, obtained in modern times from Arabia, is not more satisfactory.

Olibanum is named Lubán and Cundur by the Arabs. But, Benzoin having been introduced into general use, as incense, in place of Olibanum, the name of Lubán has been appropriated to that fragrant balsam, and the Mohammedan writers of India, on Materia Medica, apply only the term Cundur to Olibanum. The author of the Mekhen-uladwiyeh, under this head, states Cundur as Arabick, or according to other opinions Persian, and equivalent to the Syriack Labuniya (لبعني). He describes the drug as the gum of a thorny plant, a yard high, with leaves and seed resembling the myrtle. It grows, he says, on the mountains of Shahar and Yemen. He, however, adds, that the plant is said to be found in some parts of India. The Tohsút ul muminin gives a similar description (excepting the remark last quoted); and so does the Arabian author Abulfadli cited by the French translator of Pliny.†

† Poinciœt. Paris 1771. tom. 4. p. 532.
OR FRANKINCENSE.

From the Hebrew Lebonah or Arabick Lubān, the Greeks obtained their names for the tree and the gum, Libanos and Libanōs. They seem likewise to have been acquainted with the term Cundur, from which ξυνόμο is probably derived.

The Hindu writers on Materia Medica notice a fragrant resinous gum, under the name of Cunduru, which their grammarians consider as a Sanscrit word, and accordingly state an etymology of it from a Sanscrit root. They concur in declaring it to be the produce of the Salac, a tree which they affirm to be vulgarly called Sālāi. The tree, which is known by that name, was examined by Dr. Hunter on his journey to Ujjayini; and by me on a journey to Nagpur: and it has been figured and described by Dr. Roxburgh, who has named it Boswellia serrata. His description follows.

Boswellia Serrata, Roxb.


A large tree, a native of the mountains of India. A most fragrant resin is collected from wounds made in the bark, &c.

Leaves crowded about the extremities of the branchlets, pinnate with a single terminal one.

Leaflets sessile, sometimes opposite, sometimes alternate, in general about 10 pair, obliquely-ovate, oblong, obtuse, serrate, villous; length about an inch, or an inch and a half.
Petioles round, downy.
Racemes axillary, simple, shorter than the leaves, downy.
Bracts minute.
Flowers numerous, very pale pink, small.
Calyx five lobed,* downy.
Corol, petals five, oblong, expanding, downy on the outside, and considerably longer than the stamens.
Nectary, a fleshy crenulated cup,† surrounding the lower two thirds of the germ.
Stamens: Filaments ten, alternately shorter,‡ inserted on the outer edge of the mouth of the nectary. Anthers oblong.
Pericarp: Capsule oblong, three-sided, three-celled, three-valved, size of an olive, smooth:
Seed solitary, winged, broad-cordate, at the base deeply emarginate, point long and slender, and by it inserted into the apex of the valve of the Capsule to which it belongs.

The foregoing description is by Dr. Roxburgh. I have merely added in the margin a few inconsiderable variations taken from Dr. Hunter's notes or from my own.

The fructification is remarkably diversified on the same plant. I have found, even on the same raceme, flowers in which the teeth or lobes of

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* So Dr. Roxburgh. But Perianth 1-leaved, 5-toothed; according to Dr. Hunter's observations and my own.
† Coloured and adhering to the Calyx.
‡ Subulate and alternately slender.
the Calyx varied from 4 to 10. The number was generally 5, sometimes 6, rarely 7, more rarely 4, and very rarely 10. Petals as many as the divisions of the Calyx. Stamens twice as many. Capsule generally 3 sided, sometimes 4, rarely 5, sided; with as many cells and as many valves. Seeds generally solitary: the dissection of the germ does indeed exhibit a few in each cell; but only one is usually matured.

The tree is frequent in the forests between the Söne and Nágpúr; on the route by which I travelled to Berar in 1798. The gum, which exudes from it, was noticed by Mr. D. Turnbull, who was then Surgeon to the residency at Nágpúr. He judged it to be Olibanum; and so did several intelligent natives who accompanied us. But the notion, prevalent among botanists, that Olibanum is the produce of a species of Juniper, left room for doubt. I now learn from Mr. Turnbull, that, since his return to his station at Mirzápúr, he has procured considerable quantities of the gum of the Sálai, which he has sent to Europe at different times; first without assigning the name of Olibanum; and, more lately, under that designation. It was in England recognised for Olibanum, though offered for sale as a different gum; and annual consignments of it have been since regularly sold at the East India Company's fairs.

The experience of several years at a market such as that of London, where a mistake (had any been committed) would have been soon discovered, seems to be conclusive. I might, however, add to it the testimony of medical gentlemen at this place, by whom specimens of the Gum furnished by Mr. Turnbull have been inspected, and who concur in opinion, that the Gum appears to be the same with the Olibanum of the shops.
Upon this evidence so corroborated, I shall venture to propose the following statement of Synonyma both for the tree and the Gum.

Boswellia Serrata.*
Sanfc. Sallací or Sillací, Cundurucí† or Cunduri, Surabhí,‡ Suvahá &c.
Hind. Sálai, Sálé, Sálá or Silá, Sajíwan.
Gr. Libanos.
Lat. Libanus.

The Gum. Sanfc. Cunduru, Cunda, Mucunda, &c.
Gr. Libanotos or Libanos. Lat. Libanus. Mod. Lat. Olibanum, (quasi Oleum libani).

* If the genus had not already received a botanical name, it might have been suitably denominated from the resinous Gum, afforded by this tree; and the generic and trivial names of the species might be Libanus thurifera.
† Producing Cunduru.
‡ Fragrant.
REMARKS on the Species of Pepper, which are found on
PRINCE OF WALES's ISLAND.

BY WILLIAM HUNTER, Esq. M. D.

HAVING had an opportunity, during a residence of some months
at Prince of Wales's Island, to ascertain, partly by observation and
partly by inquiry, some particulars which I conceive to be new ref-
peting the culture and preparation of black pepper, the principal sta-
ple of that Island, I am induced to lay the fruit of my researches
before the Asiatick Society. To these I have added a few remarks on
the other species which are found on the Island. I judged it would
not be without utility to add the oriental names of each species; and
in this part of my task, as far as regards the Sanscrit and its deriva-
tives, I am indebted to the liberal assistance of Mr. COLEBROOKE.

1. *Piper nigrum*. Lin. sp. 40, Syfl. 74. Reich. i. 75. Willden. 159.
melli de plantis Philip. in Phil. Trans. vol. 24. p. 1773. Loureir :

Black Pepper. Leaves ovate, acuminate, five to seven nerv'd, smooth;
petioles short.


Zeyl. 193.


The Greek name of this species, from which the name of the genus is taken, has been said to be derived from "Παπάς," because it is supposed to promote digestion. But we have it on the authority of Hippocrates that the Greeks received this term from the Persians; and these undoubtedly had it from the Indians, from whose country they imported the drug itself. In fact, the Persian and Arabick, as well as the Greek and Latin names, are derived from Pippali, the Sanscrit denomination of Long Pepper. The ancients in general, with the single exception of Theophrastus, supposed the black, the white, and the long pepper to be the produce of one plant. Hence, they might naturally enough apply to one species the Indian name of another. Salmasius, who notices this, has fallen, in common with other modern writers, into the opposite error, by supposing the black and white peppers to grow on different plants. Piso appears to be the first

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(1) Scapulae Lexic. in voca. Alex. Aphr. in praf. 1. 1. probl.
(4) Ibid.
who corrected this mistake; (6) and his statement is confirmed by Rheede, (7) Loureiro (8) and Marsden. (9)

This plant has been so fully described, that I have nothing to add on that head. But as it is the most important article of produce on Prince of Wales’s Island, the manner of cultivation pursued there merits a particular detail.

It is propagated by cuttings, or suckers. They are generally planted at the distance of about 7½ feet; that is 100 plants in an Uirlong, which is a measure of 80 yards square, nearly equal to 1½ Acre. But some experienced cultivators think that the distance should be greater; perhaps nine feet; as the roots would be better nourished, and the produce more abundant.

When a plantation is to be commenced, the large timber is cut down by Malays, at the rate of five Dollars per Uirlong. The remaining labour is performed by Chinese, who dig out the roots, burn them and the trunks, pulverise and level the soil, plant the pepper vines and the trees which are to support them. It is usual to contract with them for making the plantation in this manner, and taking care of it for three years, at the end of which time it is in bearing, at the rate of 225 Dollars for 100 plants. The sum is liquidated by instalments, as the contractor requires it to pay his workmen. Something more than one

(6) Mantissa Aromatica.
(7) H. M. v. 7. p. 23.
(8) Pl. Coch. 30.
(9) Hist. Sum. 166, 117.
third is paid in the first year, because the labour is then greatest; but about one-fourth of the whole is generally reserved, till the contract is completed, and the plantation delivered over. This does not include the price of the plants, or cuttings, which are furnished by the proprietor of the plantation.

The vine is first made to climb on a pole. At the end of ten or twelve months, it is detached from the pole, to undergo the process called laying down. A circular hole, about eighteen inches in diameter, is dug at one side of the plant. At the bottom of this the plant is carried round in a circle, and the end of it is brought to the tree which is in future to form its support. The depth of the hole, in which the vines are laid down, varies, according to the situation and nature of the soil; and much judgement, to be acquired by practice, is requisite, to adapt it to these circumstances. In high and dry situations, the depth must be considerably greater than in those which are low and moist. Too little depth in the former would expose the roots to be parched in dry seasons; and too much in the latter would occasion them to rot from excess of moisture.

The trees used for supporting the pepper vines on Prince of Wales's Island are the Morinda Citrifolia (Mankúdo) and the Erythrina Corallo dendron (Dadap). The Chinese planters allledge, that the pepper supported by the Erythrina thrives better, and lasts longer than that supported by the Morinda. One instance I heard quoted in proof of this assertion, was a plantation which had been long neglected, and overgrown with weeds. When it came to be examined, the vines which had grown on the Morinda were all dead; while those on the Erythrina were still strong and productive. The reason assigned by the planters,
for this difference, is, that the roots of the *Erythrina* do not spread so much, or penetrate so deep, as those of the *Morinda*; whence they interfere less with the pepper, and do not draw so much nourishment from the earth.

The *Morinda* was formerly made to grow with one stem, but this was not found to afford sufficient spread for the vines. Therefore, when that tree is used, the practice now is to break off the principal stem, at the height of about two feet from the ground. This obliges the trees to put out lateral branches at that height. When these have attained the length of about a foot or fifteen inches, they are cut off. From their ends arise erect shoots, each of which forms a stem, so that the vine has four or five stems to climb on, instead of one.

The vines, at three years of age, begin to produce, and they are reckoned to be in full bearing at five or six. They continue nearly in the same state for eight years more, or till they are fourteen years old. From that period they are reckoned on the decline; but the planters on *Prince of Wales's Island* cannot yet judge from experience, at what rate, or in how long a time they decay. Some Chinese, who have cultivated the plant on the *Malay* coast, say the vines have not arrived at their point of greatest produce till they are fourteen years old; and that from this, gradually declining, they continue bearing till near thirty.

The first year of bearing, or at three years old, the vines do not yield more than half a *catti* each. But plants kept in good order, when in their prime, will produce three *cattis*. *(10)* A plantation of 3000

*(10)* A *catti* is $\frac{1}{4}$ lb.
vines at Sungi Cluan\(^{(11)}\), now in its eleventh year, has been let for three years at seventy picols yearly, or at the rate of \(2\frac{1}{2}\) cattis each plant. It must therefore produce as much more as will pay the tenant for his labour and risk. They are generally let, for the first five years of bearing, or from three to eight years old, at 160 picols per laksha (10,000) or at 160 cattis for 100 vines.

The vines yield two crops yearly. The first gathering commences in December, after the heavy rains are over; and at the same time, the vines have put out new flowers. This first collection may be finished in February. The flowers which spread in December have ripened their seeds in April or May. The second collection then begins, and ends in July. During this time, blossoms have expanded, which are to furnish the crop of next December. But, with the most careful cultivators, who gather only the bunches which are fully ripe, these two harvests run so nearly into one another, that the collection is in a manner continued without interruption, from December till August; so that there is only an interval of four months in the year, which is the season of the heavy rains.

The bunches are plucked off entire, taking care to pull only those that are ripe. They are thrown into baskets, and allowed to remain for a day. They are afterwards spread on mats, and trodden with the feet, to separate the fruit from the stalk. The grain is next winnowed, to clear it from the stalks and the lighter grains; and the good heavy grains are spread on mats, in the sun, to dry, for three days. It is calculated that one hundred cattis of green pepper, with the stalks, yield thirty-five cattis of clean and dry pepper. The collection of one day from

\(^{(11)}\) A district near the southern extremity of the island, of which the soil is found peculiarly favorable to the cultivation of pepper. The oldest vines are in this district.
46,000 plants of three years old, was 500 cattis of green, or 175 of dry pepper.

It is usual, as was before noticed, when the plantation is delivered over to the proprietor, at the end of three years, to let it to a Chinese farmer, for five years more; as the proprietor is thereby less liable to imposition, the only precaution necessary being to see that the tenant is careful of the vines during the last year, and leaves them in good condition at the expiration of the lease. This is the only way in which a very extensive plantation, or one whereon the proprietor cannot bestow his whole attention, can be managed to advantage. But, if the proprietor has time, and is careful and acute, he may render it something more productive, by keeping it in his own hands. The labour of cleaning the vines, throwing up earth about the roots, and collecting the produce of the plantation abovementioned, of 46,000 plants, was performed by sixteen Chinese workmen.

The Table at the end of this paper exhibits a calculation of the profits that may be expected in twelve years from a given space of ground planted with pepper; supposing it to sell at ten dollars a picol; which was the price on the field when I was on the Island, and then esteemed very moderate. But I understand it has lately fallen to something between eight and nine Dollars.

The whole quantity of pepper produced in that year on the Island, was estimated at something between sixteen and twenty thousand picols. Taking the medium quantity at 12 Dollars, which was the selling price, this article must have amounted to 216,000 Dollars. The Island pepper
is more esteemed than that which comes from the Malay continent and Sumatra, and it sells for about one Dollar more per picol. The difference is occasioned by the haste of the Malays to gather the fruit before it is sufficiently ripe.


*Betele Tambul* five *Betre*. Burm. Zeyl. 46.


Sansk. *Tambuli, Parnalata, Nagavalli*.

Hindi. *Tambul, Tambol, Nagbel, Pan*.

Tamul. *Vettily-Chuddi*.

Malay. *Siri*.

**Saumaize** has shown at great length, and with considerable strength of argument, that the ancient Greek writers meant this leaf by *Malabathrum*, rather than the leaves of *Laurus Caffia*, or *Tez-pat*.[13] The Arabick and Persian Languages have no names for this plant. *Tambol* is borrowed from the Hindi by Persian Authors, who name the leaf *Bergitambol*. It is called *Pān* in Hindi, from the Sanscrit *Parna*, a leaf in general; in the same manner as it was known to the Romans under the name of *folium*.[14] The Indian writers enumerate several

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[14] Ibid. p. 1071, 1072.
varieties of this plant, distinguished by the size, shape and flavour of the leaf.\(^{(15)}\)

The Malays reckon five varieties, among which are these three, Siri Malayo, Siri China, Siri U'dang. The specimen of which the leaf is above described was the Siri China. The Siri U'dang they say has the petioles and nerves red.

Cultivated, but in no great quantity. A larger quantity is imported from the neighbouring coast.


Siriboa Rumph. Amb. 5. p. 340. t. 117.


Malay Baci.

The fruit is nearly as long as a finger, and tastes like the Betel leaf; and hence the name; boá signifying fruit in the Malay language. It is used as a substitute for Betel, especially at sea, where the fresh leaves cannot be procured.


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\(^{(15)}\) The Mechkzen úl Adviech, a treatise on Materia Medica, composed by Muhammed Husain, brother to the Nawa'b Muhammed Reza Khan, enumerates the following five kinds, Maghi, Cangiri, Garsi, Sincci, Bengla. He thus describes the method of treating the leaves, by which they are made tender and acquire a whitish colour—A quantity of the leaves newly gathered is put into a bag, an earthen pot or a basket, covered with straw, and placed in a hole dug in the ground—The straw is set on fire, and allowed to burn till the leaves are heated to a certain degree. The fire is then taken away, and the basket left for twenty-four hours in the hole, with a weight laid on it, to press the leaves gently together. It is afterwards exposed to the dews at night in the summer, or in winter kept in a warm place, till the leaves become white and tender.

This species has been generally confounded with Piper Longum; but a comparison of the figure above quoted from Rumphius, with that of Rheedee's Cattu-tirpali. H. M. 7. p. 27. t. 14. will clearly evince them to be different.

The Piper Longum is called in Sanscrit Pippali, in Hindi Pipel, and in Persian Pilpilí deráz. The species now under consideration appears to be the same that is called in Sanscrit Chavícá and in Hindi Chab. All the Sanscrit medical writers, as well as vocabularies of that language, concur in stating the produce of this plant to be Gaja pippali or Gaj pipel. This name was however assigned to a very different plant examined by Sir William Jones, (16) the Tetranthera Apetala of Dr. Roxburgh. (17) And the fruit of a plant, very different from both, is sold under that name by the native druggists in Calcutta.

5. Piper Latifolium?

Fruit like the former. Leaves alternate, deeply cordate, obtuse; nine
nerved.

Mal. Gádu or Gádukh.

The leaves are used as a pot-herb.

Having seen only a small specimen, without fructification, which I know merely by description, I cannot speak with certainty of this species.

(17) Pl. Corom. No. 147.
Table exhibiting an Estimate of the expence and produce, in 12 years, of
100 Urlongs, planted with Pepper.

<table>
<thead>
<tr>
<th>Year</th>
<th>Dr.</th>
<th>Cr.</th>
<th>Balance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Year</td>
<td>Clearing of heavy Timber by Malays, at 5 Drs. per Urlong.</td>
<td>500</td>
<td></td>
</tr>
<tr>
<td>Of this in the first year</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2nd Year</td>
<td>Farther payment to contractor,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interest of 1st year, at 12 per cent.</td>
<td>4218 75</td>
<td>1072 50</td>
<td></td>
</tr>
<tr>
<td>3rd Year</td>
<td>In full to contractor,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interest in the 3d year,</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4th Year</td>
<td>Interest,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supposing the plantation to be let, during the first 5 years of bearing, at 160 piculs per plant, this will be 1600 piculs; which may be sold, on the ground, at 10 Drs.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5th Year</td>
<td>Interest,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5th year's crop,</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6th Year</td>
<td>Interest,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6th year's crop,</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>7th Year</td>
<td>Interest,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7th year's crop,</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8th Year</td>
<td>Interest,</td>
<td></td>
<td></td>
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<tr>
<td>8th year's crop,</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9th Year</td>
<td>Interest,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The plants being now in full vigour, may be let for four years more at 2 catties each plant, or 2000 piculs, which is</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10th Year</td>
<td>Interest,</td>
<td></td>
<td></td>
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<tr>
<td>10th year's crop,</td>
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<td></td>
<td></td>
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<tr>
<td>11th Year</td>
<td>Interest,</td>
<td></td>
<td></td>
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<tr>
<td>11th year's crop,</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>12th Year</td>
<td>Interest,</td>
<td></td>
<td></td>
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<tr>
<td>12th year's crop,</td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>
DESCRIPTION of an improved Hygrometer.

BY LIEUT. HENRY KATER, HIS MAJESTY'S 12th REGIMENT.

SINCE I had the honor of laying before the Asiatick Society "a description of a very sensible Hygrometer," I have attended much to the improvement of the instrument, and am induced to think that some further account of it may not be deemed wholly unacceptable.

The principal objection to the Hygrometer described in my former paper, arose from the necessity of shortening the beard of the *oobeeosa hooloe,* in order to reduce the scale, to a convenient length; this was to be obviated, only by giving the instrument a circular form, and inventing some mode of ascertaining without difficulty the number of revolutions made by the index.

ABCD (fig. 1) is a frame, made of small square bars of brass or silver; this frame is soldered to a square plate BE, the edges of which are turned up, as represented by the dotted lines, to secure the index from injury; on the face of the plate is engraved a circle (see fig. 4) which is divided into one hundred equal parts. Three holes, a, b, c, are made through the frame and plate in the same direction; the holes a & b, are of a conical form as represented by the dotted lines, and are highly polished to lessen friction; the hole at c receives a screw, one end of which is tapered, and has a notch cut in it with a fine saw, which may be closed by means of the sliding ring d.

The axis ef, is made of silver wire, very smooth and straight, and of the size of a large knitting needle; on the axis, a screw is formed, by

*Andropogon Cantonius.*
twisting a smaller silver wire tightly around it from left to right: this loop should be fourteen or fifteen threads in length; the end of the wire is divided, and is to be closed by a sliding ring. As this is the most important part of the Hygrometer, fig. 2 represents it on an enlarged scale.

A loop and drop (fig. 3) is made of fine gold wire, of such a size as that when suspended on the screw, it may slide along it with perfect freedom by means of the revolution of the axis, but not escape from one interval to another by any other motion: should the loop, on trial, be found too large (as indeed it ought to be) it may be easily closed a little, by placing it on the screw, and pulling it gently by the drop; it will then assume an elliptical form, as in the figure. This loop is intended to register the number of revolutions made by the index, as it hangs freely from the axis, and advances one interval between the threads of the screw, for each revolution.

The Index, gh, is made of fine wire, accurately balanced, and as light as possible; it fits on the end of the axis e, and is to be placed at right angles with the commencement of the screw. (See fig. 2.)

The beard of the oobeena hooloo is represented at f d, (fig. 1). The top of it, which is crooked, being cut off, it is first secured between the cheeks of the axis, at f, by means of the small sliding ring; the axis is then turned round till the gold loop is brought to the fifth or sixth interval of the screw, counting from the dial plate; the screw at c is then advanced, so as to receive the lower or thick extremity of the beard of the oobeena hooloo in the notch, where it is also confined by the sliding ring d.
The extremes of dryness and moisture are determined in the following manner. The Hygrometer is placed in a new earthen pot, which has never been wetted, and exposed for a considerable time to as great a heat as the grass can bear without injury; when the index is perfectly steady, the Hygrometer is to be taken out of the vessel, and the screw at c, turned round with a pair of pincers, so as to bring the gold loop to the first interval of the screw on the axis, counting as before from the dial plate, (which is to be placed to the left hand) and the index to 100 or zero. The Hygrometer must now be suffered to cool gradually, during which, if the atmosphere be in a mean state of moisture, the index will make four or five revolutions; the ooosena hooloo is then to be continually wetted with a hair pencil and water, till the index is again perfectly steady. This will require some time, as it moves very slowly when within a few degrees of extreme moisture. The degree at which the index stands is now to be noted, and the number of intervals counted between the dial plate and gold loop, and this number prefixed to the observed degrees will give the extent of the scale.

All observations made with this Hygrometer, are to be reduced to what they would have been had the scale consisted of 1000 parts, or ten revolutions of the index. This is most convenient, as it facilitates the comparison of observations made with different Hygrometers. An example may not be thought superfluous. Suppose the scale of the Hygrometer to be 1145, or eleven intervals and forty-five parts; and that at the time of observation, there are four intervals, between the dial plate and gold loop, and 50 parts shown by the index; this would be written 450. Then, as 1145 : 1000 : : 450 : 393 nearly, the number of degrees to be registered.
Of these Hygrometers in which the extremes of dryness and moisture are well determined, be compared together, they will seldom differ ten divisions from each other, which is as near a coincidence as can be expected.

The oobeena haolo or Andropogon Convortus is found in every part of the country, in the month of January, when it should be gathered, and thoroughly dried in the sun, before it is used.

This grass appears to be far superior to any other hygroscopic substance, hitherto discovered. In the Encyclopaedia Britannica, the scale of Saussure's Hygrometer is said to consist of 400 degrees, or rather more than one revolution of the index; the Hygrometer here described makes eleven or twelve revolutions; it possesses also the advantage of being perfectly portable, cannot easily be deranged, and may be much reduced in size, if thought necessary, without affecting the extent of the scale.
ON ANCIENT MONUMENTS, containing Sanscrit Inscriptions.

BY H. T. COLEBROOKE, Esq.

In the scarcity of authentic materials for the ancient, and even for the modern, history of the Hindu race, importance is justly attached to all genuine monuments, and especially inscriptions on stone and metal, which are occasionally discovered through various accidents. If these be carefully preserved and diligently examined; and the facts, ascertained from them, be judiciously employed towards elucidating the scattered information, which can be yet collected from the remains of Indian literature, a satisfactory progress may be finally made in investigating the history of the Hindus. That the dynasties of princes, who have reigned paramount in India, or the line of chieftains, who have ruled over particular tracts, will be verified; or that the events of war or the effects of policy, during a series of ages, will be developed; is an expectation, which I neither entertain, nor wish to excite. But the state of manners, and the prevalence of particular doctrines, at different periods, may be deduced from a diligent perusal of the writings of authors, whose age is ascertained: and the contrast of different results, for various and distant periods, may furnish a distinct outline of the progress of opinions. A brief history of the nation itself, rather than of its government, will be thus sketched: but if unable to revive the memory of great political events, we may at least be content to know what has been the state of arts, of sciences, of manners, in remote ages, among this very ancient and early civilized people; and to learn
what has been the succession of doctrines, religious and philosophical, which have prevailed in a nation ingenious yet prone to superstition.

Unfortunately, writers have seldom given the dates of their compositions: and the Hindu's love of fable, and distaste for sober narrative, have been as unfriendly to the biography of authors, as to the history of princes. The lives of few celebrated persons have been written, and those, which have been composed, exhibit the same fondness for improbable fiction, which pervades the mythological works of the Hindus. The age of an author must be therefore sought from circumstances mentioned in his writings: and none more frequently affords the desired information, than the author's notice of his patron; who generally is either the sovereign of the country, or some person standing in such relation to the court, as gives occasion to mention the name of the reigning prince. Thus every ancient monument, which fixes the date of a reign or determines the period of a particular dynasty, tends to the ascertainment of the age of writers who flourished in that reign or under that dynasty: and, conversely, wherever dates can be with confidence deduced immediately from an author's works, these may furnish historical information and assist the explanation of ancient monuments.

On this account the preservation and study of old inscriptions may be earnestly recommended. It is not on a first or cursory examination, that the utility of any particular monument for the illustration of the civil or literary history of the country can be certainly determined. Even those, which at first sight appear uninteresting, may be afterwards found to bear strongly on an important point. Instances might be brought from the few inscriptions, which have been already published. But it is
not my present purpose to enter on an examination of published monuments, but to urge the communication of every inscription which may be hereafter discovered; at the same time, that I lay before the Society copies and translations of those which have been recently communicated from various parts of India.

It is a subject for regret, that the originals, of which versions have before been made publick, are not deposited where they might be accessible to persons engaged in researches into Indian literature and antiquities: but much more so, that ancient monuments, which there is reason to consider as important, have been removed to Europe, before they had been sufficiently examined, or before they were accurately copied and translated. I may specify, with particular regret, the plate of copper found at Benares, and noticed by Capt. Wilford in the present volume of Asiatick Researches (p. 108.) and still more a plate which has been mentioned to me by a learned Pandit, (who assured me that he was employed in decyphering it),* and which appears, from a copy in his possession, to have contained a grant of land by the celebrated Jayachandra, when a young prince associated to the empire of his father: from this information it seems to have been particularly valuable on account of the genealogy comprised in it.

Translations might indeed be made from the Pandit's copy of the last mentioned plate, and from one taken by a learned native in Capt. Wilford's service, from the plate discovered at Benares. But my experience of the necessity of collating the copies made by the best Pandits,

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* Servoru Triveti; the same who assisted me in decyphering the copy of an inscription on Fir oz Sháh's pillar at Delhi. As. Res. vol. 7. p. 180.
from inscriptions in ancient or unusual characters, discourages me from placing implicit confidence in their transcripts; and the originals are at present beyond reach of reference, having been conveyed to Europe to be there buried in some publick museum or private collection.

The only means, which could be now made for the removal of those interesting monuments, would be the publication of copies correctly made in fac simile. From such transcripts, provided they be executed with great care, the text may be decyphered and translated. An exact copy of the Sanscrit inscription on the flone at Cintra in Portugal, enabled Mr. Wilkins to ascertain the date and scope of that inscription; as well as the names, which it contains.* Similar copies of other inscriptions would in like manner furnish oriental scholars with the means of ascertaining their purport; and the publication of fac similes may, for this purpose, be recommended to those who are in possession of the originals.

I now proceed to describe, and, so far as I have succeeded in decyphering them, to explain, the several inscriptions on ancient monuments in flone and copper, which have been lately presented to the Asiatick Society.

I. Inscription on a Plate of Copper found in the district of Tipura.

Towards the end of 1803, a plate of copper was discovered in digging earth for the repair of the highway through the Manamati hills in the district of Tipura. It was carried to Mr. Eliot, Magistrate

* Murphy's travels in Portugal, p. 277.
of the district; and by him communicated to the Asiatick Society. On examination, is has been found to contain an inscription declaring a grant of land, dated near 600 years ago.

The plate measures 11 inches in height and 9 in breadth; and is engraved on one surface only. The sides have a gentle curvature; and, at top, is an abrupt bend allowing room to a figure coarsely delineated and apparently intended to represent a temple. The character agrees nearly with that now in use in Bengal: but some of the letters bear a closer resemblance to the writing of Tirthu.*

The following is an exact copy of the inscription in Nagari letters, as deciphered by the aid of several Pandits. A literal translation is subjoined; and a facsimile of the original is exhibited in the annexed engraving.

* There is reason to suppose the writing, as well as the language, of Bengal to be originally the same with the Tirthu; altered, in course of time, since the separation which has been the consequence of a colony of Cānyacuhya Brāhmins settling in Bengal.
TRANSLATION.

1. In that eminent and spotless family, was born, an ornament of the learned, renowned throughout the world, endowed with science, and practising good deeds, the celebrated, happy, and venerable Hēdī; in whose pure mind, virtue ever ranges, like a swan in the limpid lake.

2. From him sprung the happy chief of ministers, who exhibits the joys of unfulfilled glory; a spotless moon, among mortals, and at sight of whom the hare-spotted luminary appears swoln [with envy] and distempered with alternate increase and wane.

* This use of the pronoun indicates the conspicuousness of the object; as if sufficiently known without further designation.

† Here, as well as with the subsequent names, the particle ēva is subjoined without changing the preceding vowel. This is contrary to the rules of the language; and emendations have been accordingly proposed: but I shall not disturb the text.

‡ The moon is named Sāsin, from a fancied resemblance of its spots to a leveret. Pandits, to whom I shewed maps of the moon, copied from Hevelius and Ricciolius, fixed upon the Loca paludosa and Mons Porphyrizes, or Keplerus and Aristarchus, for the spots, which, they think, exhibit the similitude of a hare.
3. That venerable officer, * ever relying on holy virtues, † is eminently conversant with well guided morals, and conspicuous for the observance of practical duties.

4. Himself an ocean of generosity and meditation, yet thirsting to taste, by practice of austerity, that which alone confines the fleeting thoughts; ‡ sympathising with other living beings, an unrivalled theatre of virtue, practising good deeds, and, in private, only a contemplative saint, this auspicious D’hadi alone rose, as a luminary of joy above the earth.

5. Superior to the world was the delight of this pre-eminent sovereign of the earth, the happy Ranabanca Malla, whose officer § he was; for the deity, who has a hundred eyes, ¶ is obscured, even in his own abode, by the dazzling glories of that [monarch], which traverse the three worlds, in all directions.

6. May the twenty dronas || of land, in the village of Isacbanda, granted to him by that generous prince, continue, as long as fun and

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* The term is Aśwanibandhīca, which the Pandits are disposed to explain as signifying "a general commanding cavalry." Other interpretations may be suggested: the word is an unusual one.

† This, as indeed the whole of the verse, is obscure, and admits of various interpretations. In this place, more than one reading has been proposed.

‡ Here again the sense is obscure; and more than one reading may be proposed. The praise is evidently grounded on the union of practical virtues, with religious contemplation.

§ Aśwanibandhīca.

¶ Indra.

|| A measure of land, still used in the eastern parts of Bengal; originally as much as might be sown with one Drôna of seed: for a Drôna is a measure of capacity. (As. Res. vol. 5. p. 96.)
moon endure, yielding the ample harvest of unfulfilled praise: for it is
land secure from invasion, delightful, like a pleasant painting, and ap-
ppears like a crest in the assemblage of cities.

7. *This land, with definite boundaries, has been given by the libe-
ral prince himself, the range of whose glory therefore extends, as is fit,
in all directions.

8. O future kings; understand this inscription on copper, by
which that officer * humbly now solicits you: this land should be pre-
served; nor is the permanence of the realm consistent with the slightest
injury: a shame on avarice! That land is, as it were, a widow, the
sovereign of which is despised [for his covetousness.]

9. Although this excellence of the descendants [of that prince,]
which is guarded by their natural virtues, be sufficiently apparent, yet
does Medini, urged by the multitude of the good qualities of that
unfulfilled race, thus make it known.†

Years expired of the Saca king 1141; ‡ dated in the seventeenth
year of Ranabanka Malla, Sri Mat Haricala Deva, § of ex-

The Drôna, vulgarly called Dûn, varies in different districts. It may, however, be reckoned
nearly equivalent to eight Bighas, or two acres and two thirds.

* Aswanibandhiya.

† This inscription appears not to be a grant by the sovereign; but a memorial of the grant
recorded by the possessor, who must have been the heir of the grantee, and who seems to ac-
knowledge in this place the liberality of the grantor's successors in continuing the land to him.

‡ Corresponding to A. D. 1219.

§ This prince is probably a different person from the grantor named in the fifth verse.
pressed in numerals, *Samvat,* * 17; on the 29th of the Sun's being in the balance.

II. *Inscription on a Plate of Copper found in the district of Gorakhpur.*

A plate of copper, containing an inscription in the Sanscrit language, declaratory of a grant of land, but without date, was lately found in the district of Gorakhpur, near the river called the little Gand'hac. It was brought to Mr. John Ahmuty, Magistrate of the district, and by him communicated to Captain Wilford, who has presented it to the Asiatick Society.

The plate, which is 16½ inches long, and 12½ broad, is engraved on one face only. The lines, of which there are 24, run in the length of the plate; and on the left side is a curvature, on which a semicircular appendage is riveted, containing a flat button representing the impression of a seal. The figure is very imperfect, but seems to be intended for some animal.

With the plate itself, Captain Wilford communicated a copy of its contents as decyphered by a Pandit in his service. On carefully comparing it with the original, I found all the essential passages, as well as the names, correctly given; a few alterations, which this comparison showed to be necessary, have been made with the concurrence of several Pandits from Tirhut, who assisted me in collating it. I preferred the aid of Pandits of that province, because the peculiarities of the characters, where they differ widely, as they do in many instances, from common Deva nágari, make a nearer approach to the Tirhátiya letters.

* Here *Samvat* is used for the year of the king's reign. See remarks, towards the close of this paper, on an inscription found at Angáchhi in Dinájpur.
CONTAINING SANSKRIT INSCRIPTIONS.

To any other now in use. The whole inscription is indeed remarkable for the uncommon form of the consonants, and the very unusual manner in which the vowels are marked. On this account, an exact copy of the original in fac simile will be subjoined; as well as a correct transcript in modern Deva nágari letters. The following version is as literal as the difference of idiom permits.

TRANSLATION.

1. *Salutation to the God, who is manifested in various forms, from earth to the performer of a sacrifice, who is an universal soul, to be apprehended only by contemplation of saints; and who pervades all.

2. *Salutation to the unborn god, who makes the world's production, its continuance, and ultimate destruction; and the recollection of whom serves as a vessel of transport across the ocean of mundane ills.

3. *Salutation be to the husband of Lácshmí; to him who reposeth on Sēsha as on a couch; to him who is Viṣhnu extracting the thorns of the three worlds; to him who appears in every shape.

4. *Salutation be to the blessed foot of Párvatí, which destroyed the demon Mahīsha, by whom all had been overcome; and which gives felicity to the world.

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* Síva, manifested in eight material forms: viz. Earth, Water, Fire, Air, Ether, the Sun, the Moon, and the person who performs a sacrifice.

† Brahmá the creator, himself not created, and therefore termed unborn.

‡ Viṣhnu, who reposeth on the serpent Ananta or Sēsha; and who has been incarnate in various shapes to relieve the world from oppressors.

§ Bhawānī or Durgá slew Mahīshāsura: The legend is well known.
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5. "Surrounded by groves of lofty canes, * inaccessible through the range of edifices on the hill's summit, encompassed by a deep ditch in which fountains spring, secure by impassable defence from dread of foes, a royal abode there is named Vijeyapura, † which is situated on the declivity of the northern mountain, where the pain of regret is unknown, and every gratification is found.

7. "There reigned the fortunate D'harmaniya, like another Bódhisatva, a mighty and prosperous prince, whose glory spread over the four seas. His son was Jayāditya, ‡ adorable like the moon, the fortune of the world, like the tree which bears every desired fruit, and satiated thirst like a deep lake: humble, though a king; though young, prudent and averse from amorous passion; though liberally bestowing all, yet ever receiving the best result of all.

10. "His minister, learned, intelligent, and vanquisher of foes, the son of a mighty chieftain and counsellor Cītacīrti, was the fortu-

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* Bamboos (Bambusa Arundinacea and other species).

† The place here described may be Vijey-pur, on the northern declivity of the Vindhyā hills, a few miles from the temple of Vindhyā-vāsini near Mirzapur on the Ganges. It is the ancient residence of a family, which claims descent from the former sovereigns of Benares; and is still the abode of the head of that family. But the terms of the text, Uttarakiri caityā, rather seem to signify 'declivity of the northern mountain,' than 'northern declivity of the mountain;' and that interpretation points to the range of snowy mountains, instead of Vindhyā which is reckoned a tropical range.

‡ The name of Jayāditya, is known as the patron of certain authors, who flourished at Čālī; and who are considered as ancient writers. He is mentioned in the title of the Vamana Cāśicā, and even termed the author of that grammatical work. I shall not undertake to determine whether this be the same person.
whose pleasing counsels obtained a ready hearing, and who was by nature eager for the reduction of enemies. *

12. * The village of Dummadumá, ‡ obtained by him from the royal favor, and rich in tillage, dwellings and cattle, has been assigned by him to Durga. §

13. * The opulence of the good, who put their trust in the great, is indeed beneficial to others: the clouds gather water from the sea, and shower it down on the growing crop. Rare indeed are those liberal persons, who distinguish not between their own dependants and

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* The names, being uncommon, are, in this instance, doubtful. Śrimadálí is clearly given as the name of the minister; and either the whole of it may be his name; or it may be resolved into Śrīnār Alī, or into Śrī Madalī. The latter is most agreeable to the prevailing practice of prefixing Śrī to a proper name. In this inscription, the auspicious syllable is prefixed to the names of the two kings first mentioned; but is not added to the names of the writers of it, who are noticed towards the close. (v. 20 & 21).

Citrāçī may signify * of established fame; but, if taken as an epithet, it leaves no other term which can be assumed as the name of the minister’s father.

† The text exhibits Pracīti parabbaddhacībī. Though a very unsatisfactory reading, it is here preserved, and has been translated in the most probable sense, which I am able to suggest for it.

‡ A village of this name is situated in the district of Allahabad, within twenty miles of Bijnor on the Ganges. But the name is not uncommon; and may belong to some place nearer to the northern mountains.

§ Jayaditya’s minister, Madali, appears to have assigned this village for general charitable uses, by consecrating it to the goddess Durga. Such at least seem to be the most consistent reading and interpretation of the text.
strangers: how many are the all-productive trees even in the
grove? *

15. ‘Do not imagine, father, that, in the sinful age, a general equal-
ity prevails: the sovereign defends the earth, but a weak individ-
guards not even his house. † Birth and death, success and misfortune,
are perpetually passing: why not, therefore, protect another glory like
one’s own? He, who bestows fertile land furnished with the means of
agriculture, mounts a celestial vehicle and ascends to heaven, glad-
dening his progenitors. But he, who foolishly resumes land allotted to
gods or priests, assuredly causes his ancestors to fall to hell, even though
they had previously attained heaven.

19. ‘Sprung from a very pure race, respectful towards gods,
priests, spiritual parents and the king, a generous founder of temples,
who has dug many ponds; by the tenderness of his disposition an
image of Sugata, ‡ a treasure of virtues, with subdued organs,
averse from unpleasing discourse: such was the Cāyastha Nāgadatta.

* Indra’s garden called Nandana; in which five celestial trees are placed, termed Calpa-
druma, Pārijata &c. The Calpadruma yields, as its fruit, every thing which is desired.
† The intention of this and the following lines is to depreciate the resumption of the grant.
‡ From this comparison to Sugata or Buddha, as well as a previous comparison to a
Bodhisatwa, it may be inferred, that the author, if not himself a follower of the sect of
Buddha, was at least more amicably disposed towards that sect, than modern orthodox Hindus
appear to be.

It is hardly necessary to inform the reader, that the last Buddha was conspicuous for his
tender, compassionate disposition. The mythology of the sect of Buddha peoples heaven with
Bodhisatwas: and, from this class of beings, the Buddhas are selected. Gautama Buddha
was a Bodhisatwa under the name of Śvetacetyu, before he was incarnate as Siddhahotra
T’ha son of Suddhotana.
men was composed with great devoutness, this praise of the minister; in apt measure and pleasing verse, elegant * and apposite.

22. The last three verses were written by his younger brother Jayadatta; for he himself was fearful of proclaiming his own virtues.

23. * Rich and fertile is the village, obtained through the king's favor as an endowment for subsistence; and still more productive is this other village for virtuous men.*

* The text exhibits Surna critasabha: which must be amended by reading either Swarna or Suvarna. The last is preferable as giving the most correct metre: either way the meaning is rendered 'elegant, as gold,' or 'by well selected words;' for Suvarna or Swarna signifies gold; and may be resolved into two words, Su well, and varna or arna a letter or syllable.

† The last line is very obscure. If it have been rightly, decyphered and explained, it may allude to some other grant held by the Raja's minister, for his own subsistence.
III. Inscription on three Plates of Brass found at Chitradurg.

A grant of land, engraved on three plates of brass, which were found at Chitradurg in the year 1830, and a facsimile of a similar grant found at the same place, have been presented by Major C. Mackenzie to the Asiatick Society.

The plates, which appear to be very similar in both grants, may be described from that, of which the original has been received. They are nearly seven inches wide and as many high; but surmounted by an arch of two inches in height. The two exterior plates have been engraved on the inner side only: the middle one is so on both faces. At the edge is a rim, half a line thick, by which the inscription is secured from being effaced by the rubbing of the plates. They are held together by a brass ring, on which is a seal of the same metal representing a boar. The engraved surfaces have some appearance of having been once gilt.

The language is Sanscrit, excepting the description of the lands, which is in the Canara dialect. The whole inscription is in Devanagari.
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characters: but some of the letters are formed in a very unusual manner. It contains a grant by the king of Vidyánagar (pronounced Bijánagar,) formerly the capital of Carnálaca: and is dated little more than four hundred years ago. Grants, by kings of this dynasty, are not uncommon in the Dekhin; and may be of use in determining the dates of their several reigns. These princes were enlightened patrons of science: especially Harihara and Bucça Ráya sons of Sangama, the founder of the dynasty.

Major Mackenzie forwarded a translation of this inscription made by his interpreter Cavelly Boria. The original is, in some instances, read differently by the Pandits whom I have consulted: not however making any change in the purport, nor in any material passage. The following translation is conformable to their interpretation: and the copy, which is subjoined, exhibits the text as read by them.

TRANSLATION.

1. Salutation to Gáñéśa. I bow to Sambhu, graced with the beautiful moon crowning his lofty head; himself the pillar, which upholds the origin of the three worlds. May he, whose head is like an elephant’s, the son of Hara, the cause of uninterrupted suprema-

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* Śiva, or Mahádeva, is figured with the moon as a crest. According to mythology, he upholds the creator.

This, and the two following stanzas, seem to be the same which are found, but in a different order, at the beginning of the inscription on the plates preserved at the temple of Conjeveram (As Res. vol. 3. p. 39.) with some difference, however, in the reading and interpretation.

† Gáñéśa, figured with an elephant’s head, reckoned son of Hara or Mahádeva and of his wife Parvati.
3. May the auspicious primeval boar, by whom closely embraced, the earth exults, grant us vast prosperity.

4. The ambrosial moon, brother of the goddess Rama, is the offspring of the milky ocean, having a common origin with the gem Caustubha, the all-productive tree and the ever beneficent cow. In the lunar race was born a king named Yadu, by a descendant of whom.

5. [Crísthna] son of Vasudeva, the earth has been protected. In his line arose a king named Sangama, who abounded in weighty virtues, and shunned the society of the wicked.

6. This king had [five] sons, Harihara, Campa, Buccarāya, who was sovereign of the earth, Mārapa and Mudgapa.

8. Among those five graceful princes, the most celebrated was Bucca, sovereign of the earth, conspicuous for valor, as Arjuna.

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The original is here inaccurate: it exhibits Tūras sīvra sīmira gībirō; which means nothing, and in which a syllable is deficient for the metre. In the face of one another grants, the same passage is correctly written Varadā sīvra sīmira mibisṛ.

† The incarnation of Vishnu, as a boar, who upheld the earth submerged by the ocean is well known to all who are conversant with Indian mythology.

‡ The story of the churning of the ocean is familiar to every one.

Yadu, the celebrated ancestor of Crísthna, was of the lunar race.

§ The pretensions of Sangama to be descended from the lunar line of Cbatriya or Chandrayanis, are here asserted.

† The names of three of these princes, as well as of their father, occur in the writings of Madhāva-Achārya, and of his brother Sayana-Achārya, who were priests and counsellors of those monarchs.

Harihara Rāja, and Bucca Rāja or Bucca Rāya, are named in Madhāva's commentary on the Vedas, and Campa is mentioned in his grammatical works.
among the Pandavas. Therefore, did Buccarāya, fierce in battle, become a fortunate prince, applying his left shoulder* to uphold the burden of the mighty elephants postld at the quarters of the world. When his army, in warlike array, performed evolutions on the frontier of his dominions, the Turāsca felt their mouths parched; the Conca, terrified, apprehended impending death; the Andhras fled, in consternation, to the caverns; the Gujrab trembled; the Cambogias lost their firmness; and the Catingas were quickly discomfited.†

11. He was a conspicuous monarch, splendid, and a supreme ruler of kings, but acting towards disobedient princes, as the king of birds towards serpents: embraced by the concubines of kings, destroying hostile chiefs, defending the heroes of Hindū Rāya, endowed with knowledge and other qualities.‡

* The text appears to exhibit the negative of Dachina right.
† At the eight principal points of the compass, elephants uphold the world.
‡ This verse is extremely inaccurate in the original: it has been corrected with the aid of the facsimile of another grant beforementioned. It begins Yasyād bhaṛṣṭhā yuddha yuddhaḥ kā ṛg, which is unmeaning and contains too many syllables for the metre. It should be, as in the other inscription, Yasyādyad yuddhaḥ kā ṛg. A syllable was wanting in Turushcāh, written Tusbcāh. Two were deficient in Bhaya bhara bharītāḥ expressed Bhaya bhāritāḥ. Both inscriptions write Cāmkhōjā for Cambikājā. In one, Sāpārī is erroneously put for Sapadi. All the names of nations, which occur in this place, have been repeatedly explained.
‡ These stanzas are very obscure; and I am not confident, that they are rightly translated. Hindūrāya seems to be similar to the Hindūpari of Bundelkhand; for the government of that country was denominated under the chiefs, who ruled it in the last and in the preceding century.

The stanzas appear to be similar to two in the grant preserved at Conjeveram: viz. 25th and 26th. (As. Res. vol. 3, p. 47). But there is some difference in reading as well as interpretation.
13. "By that victorious king was Vidyānagarī made a permanent metropolis; a fortunate city, which is adapted to promote universal conquest."

14. "Gaurāmbica became his queen, a princess respectable for her virtues: as Rāma the beloved wife of Crīshna; as Gauri of Śiva; as Śachi, of Indra; as Saraswati, of Brahma; as Ch'Ha-ya, of Surya. By the charms of her graceful gaiety, she obscured Tilottama; by her happy fidelity to her husband, she excited the envy of Anasuyā."

15. "This liberal prince, pre-eminent among kings, begot, on that divine princess, a son named Harihara: who is become a protector of the good and punisher of the wicked; who has obtained his

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Vidyānagarī signifies the city of science. Ferishta was mistaken, when he affirmed, that it was founded by Rājā Bellāl Dēo and named after his son Bija Ray. (Scott's History of Deccan, Intr. p. xi.) It is believed to have been founded by the two brothers, Harihara and Bucca Raya.

† The Gods and Goddesses, to whom this happy couple is here compared, are mentioned in the text by titles, some of which are uncommon; and have been therefore changed, in the translation, to others more generally known. Rāma is probably intended for Rādhā as a representative of Lakshmi.

In the original, Saraswati is called Vani; but the facsimile of the other inscription exhibits Sāvitrī. Śachi is, in the original, erroneously written Śachi; and jāma occurs at the beginning of the verse for nāma.

‡ Tilottama is the name of a nymph celebrated for her beauty.

§ Anasuyā is wife of Afri, and distinguished for conjugal affection. The name signifies unenvious.

¶ The princess is here termed Gauri, which is a title of Parvati; and which conveys an allusion to her own name Gaurāmbica.
with, with the wise; who is enviable, and is devoted to the god Harihara.

19. "The tree of virtue thrives by water poured with his donations;\* while he shines with the splendid glory of sixteen kinds of gift.\+

20. "In the year 1317; and, of the cycle, Dhāta; in the month of Magha and light fortnight; on the day of full moon; under the asterism sacred to the Pitrīs (Maghā;) on Sunday; upon the bank of the river Tungabhadrā, which is adorned by the mountain Hēmacūṭa; in the presence of the auspicious deity, Virūpācśha; the valiant Harihara, I revered among mortals, liberal in his gifts of land, and especially attentive to venerable priests, has graciosly given, with gold and a libation of water, to the auspicious descendant of Bharadwaja, and follower of the Rīgveda, the wise Vishnudīcśhita Pāṭābar-dhī, son of Vāchespāti, surnamed Bhila; and to the learned Anantadīcśhita, son of Rāmabhāṭṭā, a descendant of Vasīṣṭha and follower of Āpastamba's Yajurveda, inhabitant of Ruchāngi (a place known to have been visited by the Pāndavas,) the fertile and all productive village of Mādēnahalli, also named Hariharapura, situated in the midst of Bhīlichēdra, east of the village called Arīscēr, south of Gandicēballī, west of Pattavacūṭā, and north of Bhudihalli, a place to

\* Solemn donations are ratified by pouring water into the hand of the donee.
\+ Sixteen meritorious gifts are enumerated in treatises on donation.
\‡ Corresponding to A.D. 1395.
\§ A title of Śiva.
\¶ The difference of idiom makes it necessary to transpose, in the translation, some of the verses of the original.
be honoured by all; marked on the four sides by distinct boundaries; together with its treasures, and hidden deposits, its stones and every thing which it does or may contain; abounding with objects pleasing to the eye; fit to be enjoyed by two persons; graced with elegant trees; furnished with wells, cisterns, ponds and banks; to be successively pos-

essed by the sons, grand-sons and other descendants [of the grantees], as long as the sun and moon endure, subject to be mortgaged, sold or any way disposed of; a village visited by assiduous and gentle priests and attendants, and by various wise persons, who are conversant with holy rites, and surpass in voice melodious birds.**

A particular description of the bounds of the village, and its landmarks, is next inserted in the Cánara language. After which the patent proceeds thus.

This patent is of the king Harihara, the sole unalterable tree of beneficence, Magnanimous, and whose sweet strains compose this royal grant. By his command this patent has been framed, expressed in due form, in the sacred tongue.†

The boundaries of the village on all sides, have been stated in the provincial dialect.

Of original gift or confirmation of it, confirmation is superior to gift; by generous grants a man obtains heaven; by confirmation of them,

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* Some parts of this long passage are obscure and doubtful. The last stanza, with two preceding, omitting one, (that is the 29th, 30th, and 32d) appears to be the same with three which occur in the grant preferr'd at Conjeveram, viz. 43d, 44th, and 45th. (As. Res. vol. 3. p. 51.) But there are some variations between the reading of them in this inscription, and in the copy of the Conjeveram plates, from which Sir W. Jones made his version of that grant, and, in a few instances, the interpretation, which I have adopted, differs from his.

† This passage may indicate the artist's name, Vánídeva.
an unperishable abode: for the confirmation of another's donation is twice as meritorious as a gift made by himself; and his own munificence is rendered fruitless by refutation of another's grants. He, who refrains land, whether bestowed by himself or by another, is born an infest in ordure for sixty thousand years. In this world is one only sister of all kings, namely land, which has been conferred on priests: * she must not be enjoyed nor espoused. † This general maxim of duty for kings, should be strictly observed by you in all times: so Rāma-chandra earnestly conjures all future sovereigns. ‡

*Srī Virūpāccha; or the auspicious deity with uneven eyes.*§

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* The terms may signify "fully granted away, or properly bestowed."
† In mythology, as well as in figurative language, the earth is wife of the sovereign. With an allusion to this idea, land, which has been granted away, is here called the king's sister: and his seizure of such land is pronounced ince neous.
‡ This appears to be a quotation from some poem (a Purāṇa or Rāmāyana). The whole of the concluding part of the inscription (comprised in five śanças) seems to be the same with the close of the grant on plates of copper preferred at Conjeeveram. See As. Res. vol. 3, p. 53.
§ This signature is in Cānara letters.
IV. Another and similar Inscription found at the same place.

With a fac simile of the foregoing inscription, Major Mackenzie communicated the copy of another inscription found also at Chitrardurg and in the same year. The whole of the introductory part, containing the name of the prince, and his genealogy, is word for word the same in both grants: excepting a few places, where the variations are evidently owing to mistakes of the artist, by whom the plates were engraved. I have consequently derived much assistance from this fac simile in deciphering the original inscription before described.

The grant, here noticed, is by the same prince, and dated in Saca 1215; only four years anterior to the one before translated. I think it, therefore, unnecessary, to complete the deciphering of it, or to insert a copy or translation merely for the name and description of the lands granted, or the designations of the persons on whom they were bestowed.

Concerning the similarity of the grants, it may be remarked, that this circumstance is not a sufficient ground of distrust: for it cannot be thought extraordinary, that a set form of introduction to patents should have been in use; or that grants, made within the space of four years, by the same person, should be alike. I must acknowledge, however, that the inaccuracies of the original have impressed me with some doubt of the genuineness of the preceding grant. I do not, however, suspect it to be a modern forgery: but I apprehend, that it may have been fabricated while the upper Carnatic continued under the sole domination of Hindu princes. Still it may not be without its use, as an historical monument: since it may be fairly presumed, that the introductory part is copied from a more ancient monument; perhaps from that, with which it has been now collated.
V. Inscription on a Stone found at Curugode in the district of Adoni.

Another ancient monument, for the communication of which the Asiatick Society is indebted to the same gentleman, whose zeal for literary research, and indefatigable industry in the prosecution of inquiries, cannot be too much praised, was found by him in the upper Curnalaca in 1801, and has been presented to the Asiatick Society, with the following account of its discovery and of the inscription which it contains.

The accompanying stone was found at Kurugode, fourteen miles north of Ballari, not far from the Tung-bhadra, among the ruins of the ancient town at the foot of the Durg; and was removed thence, in March 1801, with the consent of the principal inhabitants, under the impression, that this specimen of ancient characters, with which it is covered, would be a desirable acquisition to gentlemen who cultivate the study of Hindu literature.

The inscription is chiefly written in the ancient Cánará language much mixed with Sanscrit, of which some of the Slécas or stanzas are exclusively composed. It commences with the invocation of Sambhu (Siva), and after introducing the grant, date and description of the lands, concludes with several Slécas usually added as a formula in confirmation of such donations.

A few of the stanzas, said to be written in the Prácrit language, could not be understood by the Sástris and Pandits at Triplicane, who explained the greatest part of the inscription to my Brahmins: by their

Ādevani.
united efforts and knowledge, the accompanying translation was given, in which I have every confidence after the experience I have had of the fidelity of other translations by the same hands (some of which are already communicated.)

* The inscription is useful as an historical record, if the Raja Râghamalla, mentioned here, be the same with the sovereign of the same name mentioned in a history of Mysore, who flourished about the eighth century; thus agreeing in date nearly with the monument.

* The beauty of the character was also a strong motive for removing it, as an appropriate offering to a Society, whose labors have been so successfully employed in illustrating the interesting remains of Hindu antiquity; and a permanent specimen of a character which appears hitherto to have escaped much notice.

* The common Cânara language and character are used by the natives of all those countries extending from Coimbatore,* north to Balkee † near Bêder, and within the parallels from the eastern Ghâts to the western, comprehending the modern provinces of Mysore,† Serâ, ‡ upper Bednore, § Soonda,‖ Goa, Adoni, Rachore,++ Canoul, +++ the Duab of the Kishnâ and Tung-lhadrâ, and a considerable part of the modern Subahs of Bêder and Bijâpur, as far as the source of the Kishnâ at least. Its limits and point of junction with the Mahrattas may be yet ascertained with more precision; but in 1797, I had the opportunity of observing, that the junction of the three languages, Telînga, Mahratta, and Cânara, took place somewhere about Bêder.

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* Ceyamûr. † Phalac. ‡ Mehîsûr. I Strâ. § Bednûr. ¶ Sundâ
   ++ Tâchûr. +++ Gandanûr.
Besides the common character and language, another appears to have been used, denominated at present the Halla or ancient Cánara, in which this inscription is written: it has gone so much into disuse, that it was with some difficulty I could get people to read it. An alphabet will be yet communicat as several books and ancient inscriptions are written in this character: and the remaining literature of the Jains in Bálághát, appearing to be preserved in it, affords additional motives for pointing it out to the attention of the learned, as probably affording means of extending the field of knowledge of Hindu literature.

Some of the inscriptions, at Cánara and Sals set, appear to be written in this character; and many monuments of the kind, dispersed over the upper Carnatic, hold out the prospect of further information.

Among several manuscripts in Cánara, five, relating to the Jain religion and customs, are in my possession.

The name of Cavelly Boria, a Brahmen, who was highly instrumental in forwarding and facilitating the investigations carried on in Mysore and the Nizam's dominions, is inscribed on the edge of this stone, as a small tribute to the zeal and fidelity of a native who evinced a genius superior to the common prejudices of the natives. He first suggested the idea of removing the stone to some place where it could be useful to European literature; and, by his conciliatory manner, obtained the concurrence and assent of the natives for that purpose.

The stone, sent by Major MacKenzie, with the foregoing account of the discovery of it, is nearly five feet high, and three wide, and about ten inches thick. The front is covered with writing in large characters, above which is a representation of the Linga in the form usual in
temples; it is surmounted by a sun and crescent; and near it stands a bull, intended perhaps for the bull called Nandi, a constant attendant of Siva: this is followed by the figure of a smaller animal, of similar form. The back of the stone is half covered with writing.

The translation, mentioned by Major MACKENZIE, is here subjoined. Not being acquainted with the character, in which the original is written, I have not collated the version; and have therefore used no freedom with it, except that of substituting, in many places, English words for Sanscrit, which the translator had preserved.

**TRANSLATION.**

**ADORATION be to the auspicious SWAYAMBHU NATHA or SELF-EXISTENT PROTECTOR.**

1. *I prostrate myself before Sambhu:* whose glorious head is adorned with the resplendent moon; and who is the chief prop of the foundation of the three worlds.*

2. *May SWAYAMBHU be propitious: he, who won immortal renown; who grants the wishes of those that earnestly intreat him; who pervades the universe; the Sovereign Lord of Deities; who destroyed the state and arrogance of the demons; who enjoyed the delightful embraces of PARVATI, to whom the learned prostrate themselves: the God above all gods.*

3. *I prostrate myself before Sambhu: whose unquenchable blaze consumed the magnificent Tripura; whose food is the nectar*

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*This is the same stanza, which begins the two inscriptions found at Chitrakut, and which likewise occurs in a grant in the possession of a Brähmen at Mundial: and in that preserved at Conjeeveram.*
dropping from the beams of the moon; who rejoiced in the sacrifice of heads by the Lord of Ráçhasas;* whole face is adorned with smiles, when he enjoys the embraces of Gauri.'

(The foregoing stanzas are Sanscrit: the fourth, which is Prácrit, is unexplained. Those which follow, are in Cánará.)

5. 'By the consort of Dévi, whose divinity is adored, the spouse of Párvatí, resplendent with the glorious light of gems reflected from the crowns of the Lords of Gods and demons whose heads lay prostrate at his feet; with a face ever lighted up with smiles; he is the self-existent deity: may the wealth, and the stations of his saints, be ever granted to us.

6. 'The beams of whose sight, like the frequent waving of the lotus flower, flashes reflected from the numerous crowns of glorious Kings, of the chief of Gods, of the King of Kings, and of the Lord of Demons; who exists in all things, in all elements, in water, air, earth, ether and fire, in the sun and moon: the renowned deity manifested in eight forms; Sambhú; may he grant our ardent prayers:

7. 'Cheerfully I bow to Sambhú in the lotus of the heart; to him who increases and gives life to all; who holds supreme command over all; who, through his three divine attributes, created and animated fourteen worlds; whoever resides in the minds of his saints.'

(The two next stanzas have not been explained. The following is in Hulla Cánará.)

*Rávana.
For ever be propitious to Sómëśwara Dévadi, the son of the
Vahúma, Shuvana Malla Viša, the protector of the world, the
cast sovereign of Kings, the pre-eminent monarch, a man of superior
eminent personage of the noble race, the ornament of the
Chaluca tribe, whose state be increased progressively in this world, so long
as the sun and moon endure; who reigns in the city of Calyán, enjoy-
ing every happiness and good fortune, with the converse of good men
and every other pleasure. In this country of Cuntaladésa, a land re-
nowned for beauty and for manly strength over all the sea-girt earth, is
situated Condavipattan, placed as the beauty spot on the human face; a
city favored by the goddess of prosperity; as a nosegay of elegant flow-
ers adorning the tresses of the beauteous goddess of the earth.

11. ‘How is this favored land? In its towns are numerous groves
of mango; plantations of luxuriant betel and fields of rice: in every
town are channels of water, and wells, opulent men and beautiful wo-
men: in every town are temples of the Gods and of the saints: in
every town are men blessed with vigor and every virtue.

12. ‘In its centre, is the mighty hill of Curugode-durg, like the
fastnesses of heaven, ever famed, rearing aloft its top crowned with
fortresses. In height and compass surpassing all the strong hills on the
right or left.

* Cuntala Désa, the ancient name of the province in which Curugode is situated; part of
the Ballé or Adoni District. M.

† The poet indulges his fancy in describing this favored Durg; but in fact it is only about
250 feet high, and no ways remarkable for strength. M.
13. "This Curugóde was established as the capital of his dominions by the king of Cuntala, who was the foe of the king of Cheta; who terrified the Gurjara; who is the instrument to destroy the plants of Madru; who put Pândya to flight. Is it possible for the king of snakes, though possessed of a thousand tongues, to praise sufficiently the beauty of this city?

14. "What is the description of the delightful gardens that encompass the city? They are gardens wherein are found the Tilac, the Tamál, the palm, the plantain, the Minurops, the trumpet flower, the tremulous fig-tree, the citron, the Oleander, Mesua, and Cassia, the cotton-tree, the Carambola and Pcederia, the mango, Butea and fragrant Nalica; and various trees, that flourish and produce through all seasons as in the garden Nandana; these surrounded this city of Curugóde."

(The fifteenth stanza is unexplained.)

16. "In the city of Curugóde, the residence of the goddess of prosperity, where are numerous temples of worship, fertile lands, happy spouses, friendly intercourse, a favorable government, every sacred decoration and zealous devotion in the service of Śiva;

17. "The Lord of that city, a warrior unrivalled, whose name was Racshamalla, whose breast is tinged with the saffron communicated from the bosom of beauty, whose renown is ever praised over the whole world."
(The eighteenth stanza is in Prácrit, and not explained.)

19. This Raja Raçshámalla, prince of the earth, born of so renowned a race of sovereigns, was happily possessed of valor, of victory and of wealth.

20. For the king Raçshámalla, who was lord of riches and a devout worshipper of Siva, by his consort Sómaldévi and begot a son named Néréngala Rájá, husband to the goddess of renown, the bestower of wealth on the distressed, on the learned, and on the unfortunate, to the utmost extent of their wishes.

21. To Néréngala Rájá and to his wife Raçshálá-devi (the source of all virtues) were happily born two sons named Imádi Raçshámalla and Sómabhúpála, whose renown, like the sky, overspread the whole earth.

22. What is the description of the eldest of these princes? Imádi (or the second) Raçshámalla Rájá, the successor of the former, seated on the excellent throne, attended by many mighty elephants, in colour like the Chamari, ruled the whole kingdom under one umbrella, possessing the wonderful power, like Chinná Góvinda, of feeding tigers and sheep in the same fold.

23. The king Raçshámalla acquired great power: his mighty splendor and good fortune were such as drew the applause of the whole admiring world. The globe was filled with the light of his reputation. The beauty of his person is worthy of the praise even of Cupid; the
God famed for beauty. He was the destroyer of sin; foreign kings, and in battle he was as Vishnu.

24. May Mrītu [Siva] graciously bestow eternal welfare and prosperity of empire, on the king Racshāmalla, among all his chief saints.

During the gradual increase of the empire of Racshāmalla extending from the north, all around, even to the north, his servant and worshipper, a descendant of Casyapa's race, manager of the affairs of Talgarā Amārī, invested with full authority; equal in knowledge to Yugaṅdhār, the sun to enlighten the case of Vajīnasa [as the sun enlightens the sky]; chief of ministers, born by the blessing of the god Swayambhū, the source of wealth, was Bābarājū.

(Several lines follow giving an account of the ancestors of Bābarājū, which have not been translated.)

Such is Bābarājū, who built a temple to the God Swayambhū Devī, while he was managing the affairs of his sovereign lord, the mighty king, the great Racshāmalla, whose god was the self-existent deity.

The praise of the priests of the temple.

They were learned in the sacred ceremonies of holy devotion, in self-restraint, in austere fast, appropriate studies, alms, remembrance, silence, religious practice and the worship of Siva.

They were devout in performing the ceremonies of the worship of the gods of the family. Among them, was one named Balasiva
...unequalled for a good or happy genius. To this famous Achārya was granted this gift with water poured into his hands.

The charitable donation of lands given to the god Swayambhu in the year of Salivāhana 1095* in the Vijaya year of the cycle and on the 30th of the month Mārgasīra, on Monday in the time of an eclipse of the moon.

(It appears unnecessary to insert the description of the lands.)

Also Chinna Čovinda Sitarā Gundī, king of the city of Bhoga-vati, equal to the sovereign of Bhārāol, who was acknowledged for ever by the excellent Vīracālīdeva the mighty king of the earth named Imādi Raśhamalladeva. In the year of Salivāhana 1103,† of the cycle Plava, and on the 15th of Čārtica, on Monday, in the gracious time of the moon's eclipse, at the time when he made over in alms Tripura Agra-haram, granted under Dārāpurbac to Balasiva Dēva, who repaired all the buildings of the temples of Swayambhudeva who is distinguished for knowledge of the pure Vēdas, and of other religious institutions and customs of the worshippers of Śiva, and for charity in feeding the poor.

(The sequel of the inscription is likewise omitted: it relates to a further grant made by the widow of Babarajū, at the time of her burning herself with the corpse of her husband. The concluding part of it was left untranslated, being stated to be illegible.)

The eclipses, mentioned in these grants, do not appear reconcileable with their dates. According to the table of eclipses calculated by

* Answering to A. D. 1173.  † Corresponding to A. D. 1181.
Pingree, the solar eclipses, which occurred in 1172 and 1173, fell on 27th January and 23rd June 1172 and 22nd June 1173; and the lunar eclipses in 1180 and 1181 were on the 13th February and 7th August 1180 and 22nd December 1181. None of these approach to the dates of Margastra or Agraahiyana 1095 and Carstica 1103. Unless, then, the era of Saliwahana have been counted differently in the peninsula of India, from the mode in which it is now reckoned, and on which the comparison of it with the Christian era is grounded, it seems difficult to account for this disagreement of the dates and eclipses, in any other way, than by impeaching the inscription, the authenticity of which there is not otherwise any reason to question.

VI. Inscription on a Stone found at Kurrah.

Having learnt from Captain C. Stewart, (a Member of this Society), that an inscription had been remarked by him in the gateway of the Fort of Kurrah (Kharâ), I obtained, through the assistance of Major Lennon, then stationed in the vicinity of that place, the stone itself which contains the inscription. It now belongs to the Asiatick Society.

The inscription is very short; contains the date 1093 Samvat, the name of the prince, as also names of several places; and is written in a very legible character: yet all my endeavours to arrive at any explanation of it have been unsuccessful. Whether it be only a fragment of...
an inscription (for the stone is very narrow, *) or the inscription have been inaccurately engraved (and this also is countenanced by its appearance) I shall not take upon myself to determine. At present, I can only translate the first six, out of sixteen lines, which run thus:

"Samvat 1037,† on the first day of the light fortnight of Ashadh. This day, at this auspicious Cattā, the great and eminent prince Yāsahpāla, ‡ in the realm of Causamba, and village of Payahāsa, commands, that—"

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* Its height is 4 feet 9 inches, but it is only 9 inches wide.
† Corresponding to A. D. 1037.
‡ It may be worth remarking, that the inscription, discovered at Sārandha near Benares, dated 10 years antecedent to this, relates to a family of princes whose names had a similar termination. Asiatick Researches, vol. 5. p. 133.
VII. Inscription on a Plate of Copper found in the district of Dinepur.

In the beginning of the present year (1805,) a plate of copper was found at Amgachhi in Sultánpur, by a peasant, digging earth for the repair of a road near his cottage. He delivered it to the nearest police officer, by whom it was conveyed to the Magistrate, Mr. J. Babble, and by him forwarded for communication to the Asiatick Society. Amgachhi, though now a small village, is described as exhibiting the appearance of having formerly been a considerable place. Remains of old masonry are found there; and numerous ponds are remarked in the vicinity of that and of the adjacent villages. It is situated at the distance of about fourteen miles from Budal; where an ancient pillar stands, of which a description (as well as the inscription, which is read on it), was published in the 1st volume of Asiatick Researches, (p. 131.)

The plate is very large, being 14 inches high and 13 broad. It is surmounted by a highly wrought ornament of braids, fixed on the upper part, and advanced some distance on the plate so as to occasion a considerable break in the upper lines. The superior surface is covered with writing in very close lines and crowded characters. The inscription is completed on the inferior surface, which contains 16 lines (the upper surface having no less than 33). The character is ancient Devanágari; and the language Sanscrit; but so great a part of the inscription is obliterated, (some portion of every line being illegible), that it is difficult to discover the purport of the inscription. After wasting much time in endeavouring to decipher the whole of it, I have been able only to ascertain the name of the grantor, and a part of his genealogy; with
the date of the grant, which unfortunately is reckoned only by the reign, without any reference to a known era.

The ornament, affixed to the plate, and representing a seal, contains a single line of writing, which is distinctly read, Śrī Vigrahapāla-deva. This name of the grantor, is found at the close of the inscription; and it occurs more than once in the body of the patent. Among his ancestors and predecessors, the following names are distinctly legible.

The first prince mentioned is Lōcāpāla, and after him Dharma-pāla. The next name has not been decyphered: but the following one is Jayapāla, succeeded by Devapāla. Two or three subsequent names are yet undecyphered: * they are followed by Raja-pāla, Pāla deva, and Vigrahapāla deva, and subsequently Mahipāla deva, Nayapāla and again Vigrahapāla deva.

So far as a glimpse has been yet obtained of the purport of the inscription, it seems to be a grant by Vigrahapāla deva, in the making of which Nayapāla likewise appears to have had some share. It is dated Samvat† 12, on the 9th day of Chaitra.

The use of the word Samvat (which properly signifies a year) to denote the year of the king’s reign, and not that of Vigrama-ditya’s era, merits particular notice. In the inscription on the plates found at

* One seems to be Nārāyaṇa; perhaps Nārāyaṇapāla.
† The original seems to exhibit Samat: but this must be intended for Sambat or Samvat.
Monger, * containing a grant of land by a prince who appears to be of the same family, the date was read by Mr. Wilkins, Samvat 33: which was supposed both by him and by Sir W. Jones to intend the era of Vicramaditya. † I have always entertained doubts of that interpretation: and, among other reasons for hesitating, one has been the improbability, which to my apprehension exists, that the era should have been in use, and denoted by the same abbreviated term, so early after the time at which it commences. Eras, by which nations have continued to reckon for a series of ages, have not usually been introduced until a considerable time after the event from which they are counted: and, when first introduced, have been designated by some more definite term than one merely signifying a year. But the word Samvat (abbreviated from Samvatsara a year,) being in that inscription prefixed to a low numeral, and not expressly restricted, as is usual where Vicramaditya’s era is meant, was more likely to intend the year of the reigning king (though Sir W. Jones thought otherwise,‡) than that of a period reckoned from the birth, or the accession, or the demise, of another monarch. It appeared to me likewise, as to Captain Walford, on examining the facsimile of the inscription in question,§ that the character, which stands in the place of the t of Samvat, resembled more nearly the numeral 1. The date might therefore be 133 instead of 33. I inclined, however, to believe the lower number to have been rightly read by Mr. Wilkins on the original plate:

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* As. Res. vol. 1. p. 123.
† Ibid. p. 130.
‡ Ibid. p. 141.
§ Plates 1 & 2 in the 1st vol. of As. Res.
and consequently supposed it to be the date of the reign of Devapāla the prince who made the grant. The date of the Ámgách'hi plate, which must be referred to the reign of the grantor Vigraha-pāla, seems strongly to corroborate this opinion.

The present inscription, though yet imperfectly decyphered, appears to be useful towards ascertaining the age of the Mongir grant. The names of Dhermapāla and Devapāla occur in both inscriptions; as that of Rajapāla does, on the pillar at Budāl, as well as on the Ámgách'hi plate. Some of these names are also found in the list of princes enumerated in the Ayin ácheri* as having reigned in Bengal before Ballalasena. The authority of Abu‘lfażl, on Hindu history, is indeed not great; but the inscription on the statue of Budd'ha, which was found at Saranātha, near Benares,† proves, that a family of princes, whose names terminated in Pāla, did reign over Gaudā in Bengal, near eight hundred years ago; and this is consistent with the period to which that dynasty is brought down by Abu‘lfażl; namely the middle of the eleventh century of the Christian era. It appears also, from the same inscription found at Saranātha, that these princes were worshippers of Budd'ha, a circumstance which agrees with the indications of that faith in the Mongir grant, as translated by Mr. Wilkins. The name of Mahi-pāla, mentioned as king of Gaudā in the Saranātha inscription, occurs likewise in the Ámgách'hi plate; and if it be reasonable to believe, that the same person is intended in both instances, it will be right to infer, that the grant contained on the plate found at Ámgách'hi

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† As. Res. vol. 5. p. 133.
is nearly eight hundred years old; and that the plate found at Mongir is more ancient by two or three centuries. This reduces the age of the Mongir grant to the eighth or ninth century of the Christian era; which I cannot but think more probable, than the opinion of its being anterior to the birth of Christ.

VIII. Inscriptions on Plates of Copper at Nidigal and Goujda.

To the foregoing description of several monuments, which have been presented to the Asiatic Society, I shall add a brief notice of two other inscriptions, of which copies have been received.

Mention has been already made of a grant of land, inscribed on five plates of copper, seen at Nidigal, in the year 1801. It was in the possession of a Brahmana residing at that place; and a copy of it was taken by Major Mackenzie, which has been communicated by him to the Society. The grant appears to be from the second Buca Raja, who was third in succession from the first prince of that name, and grandson of the king by whom the grants before mentioned were made. If the date have been correctly deciphered from the copy of this inscription, it is of the year 1331 Saca, corresponding to A.D. 1409.

Another inscription, communicated by Major Mackenzie, purports to be a grant by Janaméjaya, the celebrated monarch who reigned in India at the commencement of the present age or Caliugula. It is in the hands of the Brahmans or priests of Goujda Agraharam in Bédnur; and was, with some reluctance, entrusted by them to Major Mackenzie, who himself took from it a copy in fac simile, the exactness of which is demonstrated by the facility with which the inscription may be deciphered from that copy. The original is described as contained in
three plates of copper, fastened together by a ring, on which is the representation of a seal, bearing the figure of a boar with a sun and crescent. The purport of the inscription, for I think it needless to make a complete version of it, is that 'Janáméjaya, son of Parícs惠, a monarch reigning at Hastinápuřa, made a progress to the south, and to other quarters, for the purpose of reducing all countries under his domination; and performed a sacrifice for the destruction of serpents, in presence of the god (or idol) Harihara, at the confluence of the rivers Tungabhadrā and Havidrā, at the time of a partial eclipse of the sun, which fell on a Sunday in the month of Chaitra, when the sun was entering the northern hemisphere; the moon being in the Nacshatra Asvini.'*

Having completed the sacrifice, the king bestowed gold and lands on certain Brāhmanas of Gautamagrāma: whose names and designations are stated at full length, with the description and limits of the lands granted. The inscription concludes with two verses; the same with two of those which occur in the plates found at Chitradurg;† and in those preserved at Conjeeveram.‡

* Such is the deduction from the text, which states a half eclipse of the sun in Chaitra, on the sun's entrance into the Uttarāyana, or northern path, at the moment of Vyātipāta (which imports new moon on a Sunday in any one of the undermentioned Nacshatras, viz. Asvini, Sravani, Dhanisthā, Ādrā, Asāša and Mrigasīra: the first of which is the only one compatible with the month.) The words of the text are Chaitramśe crishṇa [should be crishṇa] pascē 46, carana uttarayana san, vyātipāta nimitte sūrya parvani arda graśa gribita [should be gribita] samiśe [should be samayā.]

In the places marked with dots, the letters are wanting in the original.
† See Page 419 of this volume.
‡ As. Res. vol. 3. p. 52. The verses are those numbered 50 & 54.
If reliance might be placed on this as an ancient and authentick monument, its importance, in the confirmation of a leading point of Indian history, would be obvious and great. Major Mackenzie, in communicating the copy of it, expresses a doubt of its authenticity; but remarks, that it can be no modern forgery, for the people themselves cannot read the inscription. I concur with Major Mackenzie both in distrusting the genuineness of this monument; and in thinking, that it is no recent fabrication.

Numerous and gross errors of grammar and orthography,* which can neither be explained by a gradual change of language, nor be referred to the mistakes of a transcriber or engraver, but are the evident fruit of ignorance in the person who first penned the inscription in Nāgarī characters, would furnish reason for discrediting this monument, were it otherwise liable to no suspicion. But, when to this circumstance are added the improbability of the copper-plates having been preserved during several thousand years, and the distrust with which any ancient monument must be received, where its present possessor, or his ancestor, may have had claims under the grant recorded in it, there can be little hesitation in considering this grant of Janamejaya as unau-

* For example Samā for Samā (समाः for समाई) a palpable error obviously arising from the blunder of an ignorant amanuensis writing from dictation. The mistake occurs more than once; and can be accounted for, in no other manner: the syllables ś and yē being alike in sound, though dissimilar in form; and the blunder being such, as no person, acquainted with the rudiments of the Sanscrit language, could have committed. Other instances have been remarked, almost equally strong: as Paricēti for Paricētī; Chacrawartī for Chacrawartī. Short vowels for long; and vice versa, in repeated instances; the dental for the palatal s; and numerous other errors of spelling; besides faults of grammar and style.
thentick: independently of any argument deduced from the character, which is not perhaps sufficiently antique; or from the astronomical data in this inscription, which, however consistent with Indian notions of astronomy and chronology, will hardly bear the test of a critical examination.

IX. A Grant of Land by Jayachandra, Rája of Canoj.

It may be proper to notice further, in this place, the inscription, of which mention was made at the beginning of this essay, as having been deciphered by a Pandit (Sévóru Trivēdī) who communicated to me a copy of it, with the information, that the original has been conveyed to England by the gentleman in whose possession it was seen by him. According to that copy, the genealogy of the prince, who made the grant recorded in the inscription, is as follows:

1. Śripála, a prince of the solar race.
2. His son Mahichandra.
3. Śríchandra déva, son of the last mentioned; acquired, by his own strength, the realm of Gádhipura or Canjacubja (Canoj;) visited Cásī and other holy places; and repeatedly gave away in alms his own weight in gold. He appears to have been the first king of Canoj, in this family.
4. Madanapála déva, son and successor of Śríchandra.
5. Góvinda chandra, son of Madanapála.
6. Vijaya chandra déva, (the same with Jaya chand.) son of Góvinda chandra; is stated in the inscription as issuing his commands to all publick officers and to the inhabitants of Nágulí assembled.
at Devapallipatana, enjoining them to observe and obey his patent: which is recited as a grant of land to two Brahmanas, conferred by him, on the day of full moon in Magha 1220,* subsequently to his inauguration as Yuva raja or designated successor and associate in the empire. The inscription concludes by quoting, from a Purana, four stanzas to deprecate the resumption of the grant: and by a signature importing “this copper was engraved by Jayapala.”

Without having been the original, no opinion can be offered on the probable genuineness of this monument. But it will be observed, that the inscription is consistent with chronology: for Jaya Chand, who is described, in the Ayin aberi, as supreme monarch of India, having the seat of his empire at Canoj, is there mentioned as the ally of Shehabuddin in the war with Prithaviraja or Pitthorā, about the year of the Hejira 588, or A. D. 1192: twenty-eight years after the date of this grant.

Remarks.

A few observations on the general subject under consideration, will terminate this essay.

Most of the ancient monuments, which have been yet discovered, contain royal grants of land; framed, commonly, in exact conformity to the rules delivered by Hindu writers who have treated of this subject.† That durable memorials have been usually framed to record

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* Corresponding to A. D. 1164.
+ Gladwin’s Translation, vol. 2. p. 419.
† As, Reh vol. 3. p. 59. Digest of Hindu law, vol. 2. p. 278.
other events or circumstances, there is no reason to suppose; and this consideration is sufficient to explain the comparative frequency of monuments which recite royal grants. It was the interest, too, of persons holding possession under such grants, to be careful in the preservation of the evidence of their right. But this circumstance, while it accounts for the greater frequency of monuments of this description, suggests a reason for particular caution in admitting their genuineness. Grants may have been forged in support of an occupant's right, or of a claimant's pretensions. It will be, therefore, proper to bring a considerable portion of distrust and jealousy to the examination of any inscription on stone or metal, alleged to be ancient, and now possessed by persons who have any claims or pretensions under the grant which it contains. But no such cause of jealousy exists, where the monument in question favours no one's pretensions, and especially where it is accidentally discovered after being long buried. It is indeed possible, that such a monument, though now casually found, may have been originally a forgery. But even where that may be suspected, the historical uses of a monument fabricated so much nearer to the times to which it assures to belong, will not be entirely superseded. The necessity of rendering the forged grant credible, would compel a fabricator, to adhere to history and conform to established notions; and the tradition, which prevailed in his time, and by which he must be guided, would probably be so much the nearer to the truth, as it was less remote from the period which it concerned.

In the present state of researches into Indian antiquities, the caution here suggested appears to be that which it is most requisite to observe. When a greater number of monuments shall have been examined and
On Ancient Monuments

compared, more rules of criticism may be devised; and will, at the same time, become particularly requisite, should the practice arise of purchasing ancient monuments; or of giving rewards for the discovery of them. At present no temptation exists for modern fabrications, and little caution is therefore necessary to avoid imposition.
NOTE to Vol. 7. Page 180.

A passage in the preface of the Sārngadhara padd'hati, and another in the body of that work, which were first indicated by Capt. Wilford, * show, that a term, contained in the inscription on the column at Delhi, for which I proposed to substitute, with the advice of the Pandit who assisted me, the word 'Bāhujāta' as a conjectural emendation, must be read 'Chāhumāna;' or 'Chāhavāna;' being the name of the tribe to which the prince, there mentioned, belonged, and which is well known at this day under the appellation of Chāuhān. In the preface, Sārngad'hara describes himself as second in descent from Raẖudevā, a priest attending on Hammir king of Sācambhari, of the tribe of Chāuhān, Chāhuvaṇ, or Bāhuvaṇ (for the name is variously spelt in different copies.) The work itself is a compilation of miscellaneous poetry arranged under distinct heads; and one chapter (the 73d) is devoted to the admission of stanzas concerning individual princes. Among them two stanzas occur, which are there cited as an inscription on a royal column of stone erected as a sacrificial pillar;† and which, on comparison, are found to be the same with the two first of the stanzas on the pillar at Delhi. Several copies of the Sārngadhara padd'hati have been collated: in all of which, the term in question is written Bāhuvāna. Comparing this with the preface of the same compilation, and with the inscription itself, we may be allowed to conjecture, that Chāhuvaṇa is the correct reading: the Nagari letters व and च being very liable to be confounded.

* Page 189 of this volume.
† राजा नृपतिपाकाण्यवचूम प्रस्तुते।
WHEN music was first reduced to a science, it is probable, that it was confined to the few scientific men, whose education and studies fitted them to understand its principles; and that the first efforts of the science were displayed in hymns to the deities: each being addressed in a peculiar style of music, distinguished from the rest by its particular mode, rhythmus and expression.

According to Plato,* the Egyptians were restricted by their laws to certain fixed melodies, which they were not permitted to alter; he says, that the lawgivers of Egypt appear to have laid it down as a principle, that "Young men in cities should be accustomed to beautiful figures and beautiful melodies, and that it was one of their institutions to exhibit in their temples what these were, and what the qualities which they possessed; and besides these it was not lawful either for painters or other artificers to introduce any that were new, or even to think of any other than those belonging to their country." He adds, "Nor is it lawful at present to do this either in these particulars or in the whole of music. If you observe, therefore, you will find, that paintings and sculptures there, which were executed ten thousand years ago, as if they were not of such great antiquity, are neither more beautiful nor

---

more deformed than the paintings or carvings of the present day, but are fashioned by just the same art."

When Clinius observes, that he spoke of a wonderful circumstance; he replies, "It is, however, a circumstance pertaining to law and politics in a transcendent degree, you will likewise find other things there of a trifling nature, but this respecting music is true and deserves attention, because the legislator could firmly give laws about things of this kind and with confidence introduce such melodies as possessed a natural rectitude: but this must be the work of a God, or of some divine person; just as they say there, that their melodies, which have been preserved for such a length of time, are the Poems of Isis."

Plato considers this restriction as proper and necessary to prevent the introduction of sensual licentiousness and effeminacy. There appears to have been some such idea of restriction, amongst the antient Hindus, by the confinement of their music to thirty-six melodies: viz. the six Rāgas and thirty Rāgintās: the forty-eight Putras are melodies, which seem to have been introduced in after times, when the discipline, alluded to by Plato, had begun to be relaxed.

But the Indian Rāgas and Rāgintās are fixed respectively to particular seasons of the year and times of the night or day. This is a circumstance particularly deserving remark, as it is probably peculiar to the Hindu music.

It is likely, that these melodies were in former times appropriated to the service of different deities. In such case, the Rāgas or Rāgintās would derive their appropriation to particular times and seasons, from
the times and seasons allotted by the Hindu ritual for the performance of the services, to which they were respectively appropriated. This appears probable: but whatever might have been the original cause of this apparent singularity, it has become so completely engrained on the ideas of music amongst the natives of India, that they cannot at this day divest their minds of the prejudice. The muslemans have universally adopted it; and a performer, who should sing a Rāga out of its appropriated season, or an hour sooner or later than the time appointed, would be considered as an ignorant pretender to the character of a musician. This restraint upon their music, which Europeans would think insupportable, the Indian considers as absolutely necessary to give a true relish to the melody. The origin of this custom seems lost in antiquity. No Hindu, with whom I have conversed, has been able to account for it. We may, therefore, suppose it probable, that it originated, as I have observed before, in the religious restraints to which music appears to have been subjected, when first reduced to fixed principles as a science.

Music must have been cultivated in very early ages by the Hindus; as the abridged names of the seven notes, viz. sa, ri, ga, ma, pa, dha, ni, are said to occur in the Sāma Veda; and in their present order. Their names at length are as follow:

Shadja pronounced Sarja or Kharja.
Rśhabha pronounced Rikhabh.
Gândhāra.
Madhyama.
Panchama.
Dhaivata.
Nishāda pronounced Nikhād.
Hence we find, that the abovementioned abbreviated names of these notes, which are used in what we call Solfaing or Solmization, are the first syllables of their names, viz: sa, ri, ga, ma, pa, dha, ni. The complete scale is called Swaragrama or assemblage of tones; it is likewise called Septac or septachord, as containing, or consisting of, seven notes.

The Hindus place the seven notes under the protection of seven Ad'hisht'hatri Devatas, or superintending divinities, as follow:

Shadja, under the protection of Agni.
Rishabha, of Brahma.
Gandhara, of Sarasvati.
Madhyama of Mahadeva.
Panchama, of Sri or Lacsmti.
Dhaivata, of Ganesa.
Nishada, of Surya.

Of these notes, there are four descriptions: 1st the Badi, which is the Ania or key note; and is described as the Rajah on whom all the rest depend; the 2d is Sanbadi which is considered as the Mantri or principal minister of the Rajah; the 3d are Anubadhi, described as subjects attached to their Lord; 4th Bibadi, mentioned as inimical to him.*

* The three last distinctions seem to correspond to the Homophonia, Paraphonia, and Antiphonia of the Greeks. Gaudentius, in his Harmonick Introdu&ion, explains Paraphonia, a mean between consonance and dissonance; where the sound, to the ear, appears consonant.
The Hindus divide the octave into twenty-two intervals, which are called Śruti, by allotting four Śruti to represent the interval which we call a major tone, three to describe a minor tone, and two the semitone: not as being mathematically just, but as means of representing to the eye, and to the understanding, the supposed relations which these intervals bear to each other; merely to show, that a semitone is half a major tone, and that the minor tone is a medium between the major and semitone, being less than the former and greater than the latter. Mathematical calculation is out of the question.

Perhaps they were induced to make this division of the octave, by considering the minor tone as not divisible by two, without a fraction; and therefore made the whole number three, to represent it: for, if we divide the octave into twelve semitones, this will give twenty-four quarter tones or Śruti; but by allowing three to represent each of the two minor tones, instead of four, there will remain only twenty-two, the number of Śruti admitted.

The Śrutis are personified as so many nymphs; and, in the Sangīta Rāṇācara, are thus named and arranged.†

To Shadja or Sa .... 4
  \{ Tēbra
    Cumudvati
    Mundā
    Chandovra \}

To Rīshabha or Ri .... 3
  \{ Dayāvatī
    Renjani
    Reticā \}

† The names, exhibited in the Sangīta Dāmādara, are quite different. They seldom occur except in the writings of authors treating on music. H. T. C.
The Hindus have three Grāmas or scales: viz. Shadja-Grāma, Madhyama-Grāma, and Gândhāra-Grāma. The foregoing arrangement of the Śruti is that of the Shadja-Grāma, which consists of two disjunct, but perfectly similar, Tetrachords, separated by a major tone. The Madhyama-Grāma is formed from this, by a transposition of the major tone between Pa and Dha, and of the minor tone between Dha and Ni; thus separating the two major tones observed in the former Grāma; or, in the technical language of Hindu music, Dha takes one Śruti from Pa, and becomes thus possessed of four, leaving three to Pa.

The two Grāmas may be thus represented.

<table>
<thead>
<tr>
<th>Tetrachord</th>
<th>Tetrachord</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shadja</td>
<td>Grāma</td>
</tr>
<tr>
<td>Sa</td>
<td>1. 2. 3. 4. 1. 2. 3. 1. 2. 1. 2. 3. 4. 1. 2. 3. 1. 2.</td>
</tr>
<tr>
<td>Ri</td>
<td>1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.</td>
</tr>
<tr>
<td>Ga</td>
<td>Major Tone</td>
</tr>
<tr>
<td>Ma</td>
<td>Minor Tone</td>
</tr>
<tr>
<td>Pa</td>
<td>Semi Tone</td>
</tr>
<tr>
<td>Dha</td>
<td>Major Tone</td>
</tr>
<tr>
<td>Ni</td>
<td>Minor Tone</td>
</tr>
<tr>
<td>Sa</td>
<td>Semi Tone</td>
</tr>
</tbody>
</table>

The two Grāmas may be thus represented.

<table>
<thead>
<tr>
<th>Tetrachord</th>
<th>Tetrachord</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sa</td>
<td>1. 2. 3. 4. 1. 2. 3. 1. 2. 1. 2. 3. 4. 1. 2. 3. 1. 2.</td>
</tr>
<tr>
<td>Ri</td>
<td>1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.</td>
</tr>
<tr>
<td>Ga</td>
<td>Major Tone</td>
</tr>
<tr>
<td>Ma</td>
<td>Minor Tone</td>
</tr>
<tr>
<td>Pa</td>
<td>Semi Tone</td>
</tr>
<tr>
<td>Dha</td>
<td>Major Tone</td>
</tr>
<tr>
<td>Ni</td>
<td>Minor Tone</td>
</tr>
<tr>
<td>Sa</td>
<td>Semi Tone</td>
</tr>
</tbody>
</table>
Of the Musical Scales

<table>
<thead>
<tr>
<th></th>
<th>Sa</th>
<th>Ri</th>
<th>Ga</th>
<th>Ma</th>
<th>Pa</th>
<th>Dha</th>
<th>Ni</th>
<th>Sa</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>2.</td>
<td>3.</td>
<td>4.</td>
<td>1.</td>
<td>2.</td>
<td>3.</td>
<td>4.</td>
<td>1.</td>
</tr>
</tbody>
</table>

Madhyama Grama,

When the change of key requires a different modulation, the changes in the disposition of the Śruti are called Vīcīt; they reckon twelve such.

When a note is to be rendered graver or deeper, they say that such a note takes one or more Śruti from the note immediately below it, as in the example of the change from the Shadja Grama to the Madhyama Grama, where Dha is made one Śruti flatter than in the former scale.

If a note is to be raised, the expression is, that such a note gives one or more Śruti to the note immediately below it; which operation renders the note proportionally sharper, as its distance from the note immediately below it is consequently increased; and, to that immediately above it, the distance is in the same proportion diminished.

The Gandhāra Grama is formed from the Madhyama Grama; and, in the construction of it, the Sangīta Darpana points out three changes in the scale.

1st. Gandhāra takes one Śruti from Rishabha, and becomes of three i.e., by rendering the third note Ga flat, the interval between Ri and
Ga is reduced to a semitone, and that between Ga and Ma becomes a minor tone.

2d. Panchama loses one Śruti to Gāndhāra.

I am at a loss to know how this can take place: I rather suspect an error in the text, and would propose to substitute Dha the sixth note instead of Gāndhāra. The three Śruti of Panchama make the interval between the 5th and 6th; by losing one, it is reduced to a semitone; but it cannot lose this one to Gāndhāra, which is the third note. There are but two methods of reducing this interval to a semitone: one by raising the fifth note; the other by rendering the sixth flat. But here the interval between the 4th and 5th remains unaltered. It must in this case be done by making Dha the 6th note flat; or, in the language of Hindu music, by giving one of Panchama's Śrutis to Dhai-vata.

3d. Suddhaswara gives one Śruti to Nishāda. Here Nishāda is rendered one Śruti flat. Suddhaswara is not the name of a note; but is explained to me to be a term applied to a note possessing its full compliment of Śrutis. It may, therefore, be applied, in this case, to Dhai-vata; for, although it may give one Śruti to Nishāda, yet it gains one from Panchama, and still retains four complete Śrutis.

If these conjectures are admitted, and we compare it with the Madhyama Grama (to which these changes evidently refer), it will stand thus:

Q 5
That the Hindus probably, by this division of the octave, meant nothing more than what I have before supposed, may appear from the following table, in which the intervals, between each note and the note above it, are taken from Mr. Malcolm's series of the octave in the two modes (as given by Mr. Chambers under the article scale). This I have done, in order to compare those intervals with the Sruti of the Hindus, and to show the difference.
### Malcolm's series of the octave.

<table>
<thead>
<tr>
<th>Major Mode or Madhyama Grāma.</th>
<th>Minor Mode or Gāndhāra Grāma.</th>
</tr>
</thead>
<tbody>
<tr>
<td>The difference between.</td>
<td>The difference between.</td>
</tr>
<tr>
<td>Proportion of the intervals between each note, and the note above it.</td>
<td>Proportion of the intervals between each note, and the note above it.</td>
</tr>
<tr>
<td>What they ought to be if the scale was divided into 22 parts or the whole string into 44.</td>
<td>What they ought to be if the scale was divided into 22 parts or the whole string into 44.</td>
</tr>
<tr>
<td>What they are as fitted by the Hindus.</td>
<td>What they are as fitted by the Hindus.</td>
</tr>
</tbody>
</table>

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>$1 &amp; \frac{1}{2}$</td>
<td>$1 &amp; \frac{1}{2}$</td>
</tr>
<tr>
<td>$\frac{3}{2} &amp; \frac{1}{2}$</td>
<td>$\frac{3}{2} &amp; \frac{1}{2}$</td>
</tr>
<tr>
<td>$\frac{5}{2} &amp; \frac{1}{2}$</td>
<td>$\frac{5}{2} &amp; \frac{1}{2}$</td>
</tr>
<tr>
<td>$\frac{7}{2} &amp; \frac{1}{2}$</td>
<td>$\frac{7}{2} &amp; \frac{1}{2}$</td>
</tr>
<tr>
<td>$\frac{9}{2} &amp; \frac{1}{2}$</td>
<td>$\frac{9}{2} &amp; \frac{1}{2}$</td>
</tr>
</tbody>
</table>

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>$\frac{1}{2} &amp; \frac{1}{2}$</td>
<td>$\frac{1}{2} &amp; \frac{1}{2}$</td>
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<tr>
<td>$\frac{1}{2} &amp; \frac{1}{2}$</td>
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<td>$\frac{1}{2} &amp; \frac{1}{2}$</td>
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<td>$\frac{1}{2} &amp; \frac{1}{2}$</td>
<td>$\frac{1}{2} &amp; \frac{1}{2}$</td>
</tr>
</tbody>
</table>
If we revert to the Shadja Grama, we shall find it composed of two disjunct, but perfectly similar Tetrachords, separated by a major tone: both Tetrachords are expressed by the same numbers 4. 3 x, and if we reject the fractions of the first Tetrachord in the foregoing table, we have the same number; and, as they considered the 2d Tetrachord as perfectly similar to the first, they probably made use of the same numbers to express that similitude.

There are three kinds of characteristic melody for the structure of Rāgas, either by the use of all, or the exclusion of one, or two, particular notes. Those Rāgas, in which the whole seven notes are employed, are called Hamīr, hūran. Those, which exclude one particular note, and only use the remaining six, are called Cadhīr. Those, which exclude two particular notes, and only reserve five, are called Orav. There is a passage in Dr. Burney’s history of music, and one in the British Encyclopædia (speaking of the Guglia Rotta,* or the broken pillar lying in the Campus Martius at Rome,) by which it appears, that there is on this pillar or obelisk the figure of a musical instrument with two strings and with a neck; that, by the means of its neck, this instrument was capable, with only two strings, of producing a great number of notes; that these two strings, if tuned fourths to each other, would furnish that series of sounds called by the antients Heptachord, which consists of a conjunct Tetrachord as B. C. D. E; E. F. G. A; if tuned in fifths, they would produce an octave, or two disjunct Tetrachords.

* A fragment of an Egyptian obelisk of the highest antiquity, which had been brought to Rome under Augustus. It is covered with Hieroglyphics.
This may possibly explain the principle of the construction of the Shadja Grāma of the Hindus; and there is a similar instrument still in use, called Dwitantri, which I have often seen and heard; and, as far as I remember, it is tuned in fifths. It consists of a wooden body, hollowed out and covered with parchment; it has a neck and two strings, and is struck with a plectrum.

The Madhyama Grāma is evidently our major mode; and, if I am right, that of Gāṇḍhāra is our minor mode.

The extent of the Hindu scale is three Septacæ; which are thus fancifully described: the lowest or first Septaca, called Mundra sthāna is derived or produced from the navel, extending upwards to the chest; the second Madhyāsthāna, from the chest to the throat; the third Tārāsthāna, from the throat to the brain.

The scale is denominated Grāma, (literally village,) because there is in it the assemblage of all the notes, Srūtis and Murchhanās, arranged in their proper places, as mankind assemble in towns and villages, and there assume their different degrees and stations.

In considering the names given to the three Grāmas, it appears to me, that the Shadja Grāma takes its name from the lowest note in that scale, as being the foundation of the first Tetrachord; the second Tetrachord being apparently formed from the first by fifths: in which case the 6th must necessarily be more acute than in the Diatonic scale; and the interval between the 5th and 6th is therefore represented by four Srūtis to signify, that Dha bears the same proportion to Pa, that Ri...
does to Sa. The intervals of the Shadja Gráma may be represented as follow:

\[
\begin{array}{cccccc}
   8 & 4 & 3 & 2 & 16 & 8 \\
  9 & 5 & 3 & 2 & 27 & 15 \\
   Sa & ri & ga & ma & pa & dha & ni & sa
\end{array}
\]

The modulation of the Madhyama Gráma probably took its rise from making Madhyama the 5th note in the scale; in which case you will have:

\[
\text{Ni sa ri ga ma pa dha}
\]

or,

\[
\text{Si ut re mi fa sol la}
\]

This is precisely the diatonic scale of the Greeks; and here it became necessary to render Dha a comma lower in the scale, which the Hindus express by making Dha receive one Shruti from Pa. The alteration, thus suggested, they adopted; and with it formed their 2d scale from the Shadja Gráma, giving it the name of Madhyama, probably to denote its origin.

The Gândhára Gráma appears to have a similar origin; by making Gândhára the 5th. This will produce:

\[
\text{Dha ni sa re ga ma pa}
\]

or

\[
\text{La si ut re mi fa sol}
\]

which is the natural minor mode of La: but keeping Sa as their first note, the Vicrits, or changes before mentioned, became necessary, to give it the same modulation, and it was probably called Gândhára Gráma to denote its origin.
Of the notes and Śrutis I have spoken above. I shall now endeavour to explain what these Mūrchhanās are; or rather what I conceive them to be. Each Grāma is said to contain seven Mūrchhanās: hence they reckon twenty-one in all.

Sir W. Jones says they appear to be no more than seven species of diapason multiplied by three, according to the difference of pitch in the compass of three octaves.* But the Mūrchhanās are described to be the seven notes, each arranged in its proper flation in the scale, which renders them fit to be applied in the composition of the Rāgas &c. It appears to me, therefore, that they are the intervals of each Grāma, which I would arrange as follows.

The Shadja Grāma is composed of two disjunct but perfectly similar Tetrachords, separated by a major tone, and both Tetrachords have a major third; the Mūrchhanā of this Grāma I suppose to be:

\[
\begin{align*}
1\text{st.} & \text{ from Sa to Ri} \\
2\text{d.} & \text{ Sa to Ga} \\
3\text{d.} & \text{ Sa to Ma} \\
4\text{th.} & \text{ from Pa to Dha} \\
5\text{th.} & \text{ Pa to Ni} \\
6\text{th.} & \text{ Pa to Sa} \\
7\text{th.} & \text{ Sa to Sa}
\end{align*}
\]

\[
\begin{align*}
1\text{st.} & \text{ 2d.} \\
1\text{st.} & \text{ 3d.} \\
1\text{st.} & \text{ 4th.} \\
2\text{d.} & \text{ 2d.} \\
2\text{d.} & \text{ 3d.} \\
2\text{d.} & \text{ 4th.} \\
& \text{ 8\ octave.}
\end{align*}
\]

* In citing a passage from the Epic Poem on the death of Śisupāla, which is entitled Māgha, Sir W. Jones translated Mūrchhanā, "musical interval." (See As. Res. vol. 11th. p. 205.) He afterwards gave a different interpretation of it, (vol. 3d. p. 71,) as stated in the text. In his version of that passage, Sir W. Jones mistook the meaning of the term Śrutis, (which is there translated ear, instead of quarter tone,) but he has rightly explained it in his treatise on the musical modes of the Hindus. H. T. C.
On the Musical Scales

The Murchhanas of Madhyama Graha:

2d. from Sa to Ri.
3d. —— Sa to Ga, greater third.
4th. —— Sa to Ma.
5th. —— Sa to Pa.
6th. —— Sa to Dha, greater sixth.
7th. —— Sa to Ni.
8th. —— Sa to Sa.

Murchhana of Gandhara Graha:

Sa to Ri.
Sa to Ga, minor third.
Sa to Ma.
Sa to Pa.
Sa to Dha, minor sixth.
Sa to Ni.
Sa to Sa.

The Murchhanas are all personified, and distinguished by names.* viz.

Those of the Shadja Graha, are:

1st. Uttarā mundā.
2d. Uttarāyitā.
3d. Réchanī.
4th. Sud'haprajayā.
5th. Sancitā.

* This list is apparently from the Sangita Reśāvara. The personified Murch'banas have other names in the Sangita Dāmodara. H. T. C.
6th. Chācrāntā.

Those of Madhyama Grāma, are:

1st. Saubhīrī.
2d. Harinā.
3d. Cūlopāntā.
4th. Sudha madhyā.
5th. Mārghī.
6th. Purvī.
7th. Rishicā.

Those of Gandhāra Grāma, are:

1st. Mandra.
2d. Visālā.
3d. Sumuchī.
4th. Chitrā.
5th. Rōhini or Chitravati.
6th. Suchā.
7th. Alāpā.

The use of these Mūrchhanās is, in my opinion, to teach the learner to rise an octave by tones and semitones; and to descend again by the same notes; and to rise and fall by greater intervals, directly, by omitting the intermediate notes: in short the practice of solmisation.
APPENDIX.

On the institution of the Asiatick Society, it was determined, that, in publishing the Researches of the Society, mere translations of considerable length should not be admitted, except of such unpublished essays or treatises as might be transmitted by native authors.

In modification of this rule, it was agreed, at a meeting held on 2d July 1806, that the Society do publish, from time to time, in volumes distinct from the Asiatick Researches, translations of short works in the Asiatick languages, and extracts and descriptive accounts of books of greater length, which may be offered to the Society and appear deserving of publication.

As this publication may be expected gradually to extend to all Asiatick books, of which copies may be deposited in the library of the Society, and even to all works extant in the languages of Asia, the series of volumes will be entitled Bibliotheca Asiatica, or a descriptive Catalogue of Asiatick books with extracts and translations.

Oriental scholars are invited to communicate to the Society such translations and descriptive accounts of Asiatick books, as they may be disposed to give to the learned world through this channel of publication.
APPENDIX

To the Collection of the American Society is our present inclination, and
for the reduction of the Society, under new circumstances of con
siderable novelty, not to continue the extracts of their proceedings,
which might be prejudicial to the public.

In consideration of this, the Society, on the advice of the Council
of their proceedings. The American Agents have been authorized to
continue to publish the Society's proceedings, which may be of public
utility and interest to the Society, and to the public.

At the expiration of the present agreement, the Society may be disposed to
continue the publication of their proceedings, or to publish on the
subject of their proceedings. The publication of the Society's proceed
ings may be continued, or the publication of their proceedings may
be discontinued. The Society may have the advantage of a publication,
which may be of public utility and interest to the Society, and to the
public.

Council of the American Agents, and to the public.
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ERRATA,
IN
ASIATICK RESEARCHES,
VOL. VIII.

OMITTED IN THE TABLE ANNEXED TO THAT VOLUME.

Page  Line
250   24 read manuscripts.
254   14 read Dacsha was Brahma.
296   6 read Staurobates.
268   2 for Signor Bayer read Sig. Bayer.
275   21 read Herculees.
289   1 for cafe read base.
290   In note for to stay read to stop.
300   Through the whole page, for Lengh, Lengh-bar, Lingis, Lenghian, Lengitana, Langiro, Lenighi read Zengh, Zengh-bar &c.
302   9 for Sami-Deni read Sami Devi.
303   12 for Aftosalas read Aftosabas.
314   20 read Jyipati.
319   26 read P. Wendel.
338   Last line read Swarna-Bhumî.
319   22 for in the shape of Cow read in the shape of a bow.
341   Last line but one for Yand'haya read Yaud'haya.
354   10 read Chrodo.
354   21 read Becius.
355   18 read Avantaæ Sedes.
ERRATA AND ADDENDA,

IN THIS VOLUME

Page   Line
22     18 for B—B read B—B.
15     14 for fibres read fibres.
144    16 for 1740. It read 1740, it.
251    4 read for it is a mortal sin.
252    19 for Mam read Man.
253    18 after nature a comma—and for The read the.
257    9 for worldly read worldly.
264    Notes line 4 for may be an meant. It being, read may be here meant; it begins.
265    4 after Guru a full stop.
293    1 read Brâhmana.
318    12 read Paramâhanâ.
331    11 for part read slâr.
399    last for Ib. id. read Id. ib.

Page 81 line 18 The following paragraph to be added.

The Magas in Bengal are mentioned by Pliny under the name of Maccâ-Calingas. It appears from the context, that the upper part of the Bay of Bengal was divided into three parts, called in general Calinga, or the sea-shore in Sanscrit, from its abounding with creeks. West Calinga extended from the river of Cuttâca to the western mouth of the Ganges. In an island of the Ganges; ample magnitudinis, of very great magnitude, and of course the Delta, was a single nation called Medo-Gallica and Medo-Galenca, from the Sanscrit Madhya-Calinga or middle Calinga: then came the Maccâ-Calingas, or the Magas of Chittigong, from Mâga-Calinga. The Magas or Mugs maintained themselves as an independent tribe in the Delta for a long time, and they were at last expelled by the Musulmans and the Râjas of Tipura, about the
beginning of the sixteenth century, as mentioned by P. Monserrat. (1) Through the Burman empire, Arracan and in Chittigong the Priests only are called Magas according to Col. Symes: but in Chittigong and adjacent countries, the name of Muga is also attributed to the whole tribe.

(1) Gens vero Modo-Galica, ù qui vulgo dicuntur Magi, quamvis nostrà memorìa a Patanicis et Tybritis ultra Baltarìs rìvum pùsì Arracanì constitunt. P. Monserrat de legatione Mongolica. vol. the 1st. p. 19. a manuscript in my possession.

END OF THE NINTH VOLUME.
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ADVERTISEMENT.

Particular circumstances having prevented two plates containing fac simile of the SANSKRIT inscriptions, described at pages 402 and 407, from being ready in time for publication with this Volume, the plates will be delivered, when finished, to the Members of the Society, and to purchasers of this Volume.