

## ASIATIC RESEARCHES;

OR,

## TRANSACTIONS

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For inquiring into the
History and Antiquities,

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of
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## CONTENTS.

PAGE
I. An account of experiments made in the Mysore country, in the year 1804, to investigate the effects of terres- trial refraction. By Lieutenant Warren ..... 1
II. Description of a very sensible Hygrometer. By Lieu- tenant Kater ..... 24
III. An Essay on the Sacred Isles in the West, with other Essays connected with that Work. By Captain Wilford
Essay II. Anu Gangam, or the Gangetic Provinces, and more particularly of Magad'ha ..... 32
Essay III. Of the Kings of Magad'ha; their Chrono- logy ..... 82
Essay IV. Vicramaditya and Salivahana; their respective Eras, with an account of the Bala-Rayas, or Balhar Emperors ..... 117
IV. Account of the Jains, collected from a Priest of this sect; at Mudgeri: Translated by Cavelly Boria, Brahmen ; for Major C. Mackenzie ..... 24.4
V. Observations on the sect of Jains. By H. T. Cole- brooke, Esq. ..... 287
VI. On the Indian and Arabian Divisions of the Zodiac. By H. T. Colebrooke, Esq. ..... 323
VII. On Olibanum, or Frankincense. By H. T. Cole- brooke, Esq. ..... 377
VIII. Remarks on the species of Pepper which are found on Prince of Wales's Island. By Wm. Hu nter, M. D. ..... 383
IX. Description of an improved Hygrometer. By Lieu- tenant Kater ..... 394
X. On ancient Monuments, containing Sanscrit Inscriptions. By H. T. Colebrooke, Esq. ..... 398
XI. On the Gramas, or Musical Scales of the Hindús. By
J. D. Paterson, Esq. ..... 44.5
Appendix, ..... 463

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# TRANSACTIONS <br> or The <br> <br> ASIATIC SOCIETY. 

 <br> <br> ASIATIC SOCIETY.}

## I.

An account of Eaperiments 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 Fuot.

## INTRODUCTION.

Notwithstanding the various theories which have been advanced, at different times, to account for the effects of refraction *; and the numerous experiments which have been made by the most eminent philosophers of our times, with a view to discover some law by 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 Genaral Roy was the first among us, who availed himself of the favorable opportunity which his survey presented, to pay some minute at-

[^0]tention 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 *, which, though unobserved in England, are powerfully felt in these climates, sufficiently show how much we have reason to suspect an

[^1]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.

It must be owned, that to render experiments on terrestrial refraction pointedly useful, it would be necessary to shew 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*, 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.

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 $\dagger$, their

[^2]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 ${ }^{*}$, to measure a line near Bangalore, to serve as a base of verification to the trigonometrical operations which were then carried on under his superintendance, 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

[^3]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 Lambron'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 particularised. The angles were invariably taken with the micrometer in the focus of the telescope,

A barometer and thermometer were also procured*; 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, called in the Malabar tongue Panimooloo (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 $\dagger$.

[^4]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 Panimooloo 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.

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 vice versa) wherever, in the annexed tables, the observation rigorously agrees with this theory, the mark $(\xi)$ is placed underneath*; where the coincidence of moisture and refraction is not absolutely exact, the approximation is pointed out by a cross $\dagger \ddagger$, shewing, by the number of its bars, how near it comes to perfect consistency.

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 greater 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 moister to a drier state, and vice versa.

## As this coincidence has been very general, I found

[^5]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 $r=\frac{1}{2} A-D+a^{*}$ has been used in preference to that of $r=\frac{A-\left(D+D^{2}\right)}{2}$, 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 $\dagger$, was necessarily computed by means of the elevations and depressions, taken 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.

## * Where $r=$ Refraction.

$\frac{1}{2} A=$ One half the contained arc.
$D=$ The greater depression.
$D^{\prime}=$ The less depression.
And $a=$ The angle subtended by the perpendicular depression of S . end of measured line.

+ A small stone building, on a very conspicuous rising ground, about four miles N. of Bangalore.

```
EXAMPLE I.
```

The length of the measured line (Banswary and Beygoor) being converted into an arc of a great circle, gives $6^{\prime} 34,^{\prime \prime} 67=A^{*}$.

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 $3^{\prime} 25$." $75=a$.

Lastly, on the 7 th of August, at $6^{2} \cdot 39^{\prime}$ A. M. the depression of the foot of the flag-staff near Beygoor, was observed at Banswary, $6^{\prime} 42^{\prime \prime} 66$.

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 $29^{\prime \prime} 39$ to subtract: consequently, the corrected depression will be $6^{\prime} 13^{\prime \prime} .27=D$ (the quantity entered in the tables). Whence

$$
\begin{aligned}
& \frac{1}{2} A=3^{\prime} \quad 17^{\prime \prime} \quad 34 \\
& +a=3 \quad 25 \quad 75 \\
& -D=\begin{array}{rrr}
6 & 43 & 09 \\
6 & 13 & 27 \\
\hline & 29 & 82
\end{array}
\end{aligned}
$$

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 case, to obtain the contained arc; because the tables, by means of which the operatiou was performed, were calculated to that distance from the centre of the earth.


## EXAMPLE II.

At the same hour, the top of the flag-staff was observed $4^{\prime} 37 . .^{\prime \prime} 32$; which, corrected for the height of the instrument, as above, gives the depression $4^{\prime} 07^{\prime \prime} 93=D$. 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 $=1^{\prime} 21^{\prime \prime}$ $36=a$.

Hence we have,

$$
\begin{array}{r}
\frac{1}{2} \begin{array}{rrr}
A=3^{\prime} & 17^{\prime \prime} & 34 \\
+a=1 & 21 & 36 \\
\hline 4 & 38 & 70 \\
\hline-D=4 & 7 & 93 \\
\hline=0 & 30 & 77 \\
\hline
\end{array} \\
\hline
\end{array}
$$

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 $4^{\prime} 18^{\prime \prime} 7=A$.

2d. Again, the elevation of the Muntapum was taken at Banswary (on the same day $8^{\text {h }} 17^{\prime \prime}$ A. M.) $9^{\prime} 21^{\prime \prime} 84$, and this corrected for the height of the instrument (by adding 44".43), makes the elevation $10^{\prime}-6^{\prime \prime} 27=E$.

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 obser- Muntapum) being 8, 5 feet above the ground, we have to subtract $1^{\prime} 6^{\prime \prime} 59$, which reduces the depression to $14^{\prime} 12^{\prime \prime} 91=D$, a constant quantity in computing the third column of refraction.

Hence we have,

$$
\begin{aligned}
& D=14^{\prime} \quad 12^{\prime \prime} 91 \\
& -E=10 \quad 06 \quad 27 \\
& A=\begin{array}{ccc}
4 & 06 & 64 \\
4 & 18 & 7
\end{array} \\
& \text { 2) } 0 \quad 12 \quad 06 \\
& r=06 \quad 03
\end{aligned}
$$

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 coincidence met the eye-more easily.

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

$$
D=\left(B-B^{\prime}\right) \times \frac{960.0 d}{0.600} \times \overline{1-\frac{n}{43.5}} * \text { founded on reati }
$$

[^6]sonings 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 $=B^{\prime}$, when the temperature also least of all was $69^{\circ}$. These two quantities are used as constant in the computations.

Now, on the 7th of August, at $6^{\text {h. }} 39^{\prime}$ A. M. the barometer was oberved to be at $27=B$ from which deduct $\quad 2685=B$
there remains, $\quad 015=B-B$,
Again, the thermometer at the same time was from which deduct $75^{\circ}$
and we have 69 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, $B-B=0.15 ; \frac{960-d}{9600}=0.99$, \&c.; and $\frac{435-n}{435}=0$. 98 , \&c. we have $0.15 \times 0.99 \times 0.98=0.145530$; which to reduce in terms of $B$ (the least density) we have $\frac{2685}{0.145530}=\frac{1}{184}$ the increase of density.

Lastly, to obtain an expression in absolute numbers, we have, as $26.85: 26.85+\frac{1}{134}:: 1000: 1000$. 202 , the quantity entered in the tables.

The remaining columns are sufficiently explicit to require no explanation.


REMARKS ON THE RESULTS.
1st. 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 moistare; 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.

| Days. | Depressions. |  | Refraction. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |
| Augt. |  |  |  |  |  |  |
| 7 | $5^{\prime}$ | $17^{\prime \prime}$ | 33 |  | $1^{\prime}$ | $25^{\prime \prime}$ |
| 10 | 5 | 36 | 24 | 1 | 6 | 85 |
| 11 | 5 | 40 | 18 | 1 | 2 | 91 |
| 12 | 5 | 49 | 64 | 0 | 53 | 45 |
| 13 | 5 | 51 | 21 | 0 | 51 | 88 |
| 14 | 5 | 54 | 36 | 0 | 48 | 72 |
| 15 | 5 | 23 | 63 | 1 | 19 | 46 |
| 16 | 5 | 40 | 97 | 1 | 2 | 12 |

Mean refraction $1^{\prime} 1^{\prime \prime} 38$.
On comparing the hygrometers, as they stood at the time of these observations, with their position when last noticed in the day time, it was found that they had revolved, on a mean, $240^{\circ}$ in the direction of moisture. Now, the mean refraction of 55 observations, noticed in the tables, is $29^{\prime \prime} 74$; 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 $1^{\prime} 1^{\prime \prime} 38$. Hence, it will appear, that the latter is something more than double the former.

2d. We shall next adyert to the comparative quan-
tity 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 $2^{\prime \prime}$ of refraction, and frequently below unity *. 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) $r=\frac{1}{13 \cdot 27}$;

[^7]and if we take those by night, it will be $r=\frac{1}{6.42}$ 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*, 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 necesary 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 in the construction

[^8]of the hygrometers, consulted in the preceding experiments on refraction.

The Panimooloo 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 twists, 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 pasteboard 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:
Vol. IX.

## EXPERIMENT III.

I first applied a ret-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 right to left: 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 every thing 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 $2 \frac{1}{2}$ inches deep, on the $\epsilon$ dge of which was placed a moveable broad pasteboard circle, graduated every $5^{\circ}$, and divided in the common way of $360^{\circ}$. 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.

[^9]Table, shewing the comparative rate of going of three Hygrometers.


[^10]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 six 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 $105^{\circ}$, 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 $290^{\circ}$.

But the three hygrometers, whose rate of going is given in the preceding table, had moved meanwhile $204^{\circ}$ towards it; and therefore this quantity is to be added to the above.

$$
\begin{array}{ll}
\text { Namely } & 290^{\circ} \\
& +204 \\
& 494 \stackrel{\text { Rev. }}{=} \\
& 1+134^{\circ}
\end{array}
$$

Whence it will appear, that since the index had moved, by the application of heat, Rev. 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

EXPERIMENT V.

## 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 $6+295^{\circ}$ 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 $6+300^{\circ}$.

But, during the interval of this experiment, these had moved $135^{\circ}$, in the same direction with that under observation, which quantity is therefore to be subtracted.

$$
\begin{array}{r}
{ }^{\text {Namely }} \begin{array}{r}
\mathrm{R} \\
6+300 \\
-135 \\
\hline 6+165
\end{array}
\end{array}
$$

Again, we have seen, that by the application of extreme moisture, the index had revolved, ${ }^{\mathrm{R}} 6+295^{\circ}$

Hence, it will appear, that this process, $6+165$ affected the fibres of the stem by

The thermometer, at the beginning of this operation, was $77^{\circ}$; and at the end $79^{\circ}$.

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,

$$
\begin{aligned}
& \mathrm{R} . \\
& 2+105^{\circ}
\end{aligned}
$$

and, by the application of extreme moisture,
from left to right,
$6+295$
it follows, that the sum of these two quantities, viz.
$=9+40$
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*.

A second stem having been selected, and the same process, as above related, repeated; it moved by extreme heat ${ }^{\text {R. }} 2+290^{\circ}$, and, by extreme moisture, R. $8+320^{\circ}$; so that the compass of this fibre was R. $11+250^{\circ}$; which exceeded that of the former by R.
$2+210$; 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

[^11]the spout of a tea-kettle, was applied to one of them; when it moved, from left to right, with violent convulsive motions, (so rapid as hardly to admit of counting them) 6 revolutions; the $2 \mathrm{~d}, 6$; and the $3 \mathrm{~d}, 6$; ; when they remained quiescent.

Now, we have seen above (exp. IV.) that a stem, of this length, and number of twists, revolved in that case ${ }^{\text {R. }}+300^{\circ}$; and, in the present, nearly ${ }^{\text {R. }} 6+180$ (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 lieutenant henry kater,

## H. M. 12th Regiment.

IN the Mysoor and Carnatic is found a species of grass, which the natives call, in the Canarese language, Oobeena hooloo, in the Maratta, Gucataa sa cooslee, and, in Tamul, Yerudooraal 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 a 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. $\Lambda$ hole was made, through the centre 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.

[^12]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 $160^{\circ}$, 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 stearly. 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 mis-

rake, and, at the same time, leave the hygrometer in possession of its extent and sensibility.

A BCD 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 twotenths 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 centre, 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 tapered 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.

[^13]A little below the centres of the semicircles A and $B$, (fig. 1.) two holes are made, precisely in the same direction: one of these is intended 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 heary enough to keep the 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 should fall exactly in the axis of the tube. The tubes are solong as nearly to touch the ivory wheel.

The beard of the Oobcena hooloo 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 on the opposite tube will ascend, and vice versa.

The beard of the 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 more 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 hysrometer. 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 sometime 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 hygrometer, and the
divisions continued to the number denoting extreme dryness.

If the whole of that part of the Oobeena hooloo, 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 Ys, 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 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.

## III.

An Essay on the Sacred Isles in the West, with other Essays connected with that work.

BY CAPTAIN F. WILFORD.

## ESSAY II.

Anu-Ga'ngan, or the Gangetic Provinces, and more
particularly of Magad'ha.
THE kingdom of Magadha in Anu-Gàngam is the province of south Bahìr, and is acknowledged to be thus called, from the Magas, who came from the Dwipa of Sàca, and settled in that country, which was called before Cicatè ; from which, its principal river, the Fulgo, is called Cacuthis by Arrian. Magadlha, or Maggadha, is called Moktah in the AyinAcberi*. The Chinese, according to Mr. De Guignes, call it Moliato, and Mokito, and Kempfer says, that the Japanese call the country, in which S'A'cra was born, Magatta-kokf, or country of Magatta. Arabian and Persian writers and travellers call it Màbàd: for one of them, according to D'Herbelot, says, that the Emperors of India resided in that country. Màbòd, Mäbed, and Tabet, are, I conceive, derived from Mubadd, which, according to the learned Hyde, is a contraction from Mughbad, or the learned among the Mughs, or Magas ; and the author of the Dabistan calls a certain sect of Bràhmens, if not the whole of them, Màhbàd. From Magad'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 Maied and Magad'ha. The same is mentioned in the Peutingerian

[^14]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 Mábat : and instead of Modubce in Purny, we should, probably, read Mobedoe, answering to the El-i-maied of Arabian travellers. On the borders of Elymaide, toward the N. E. are the Lymodi mountains, near which were elephants in great numbers. Magad'ha proper is South-Bahar: but, when its kings had conquered, according to several Purárias, 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 Enácác 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 Pali, or Bàli, and Magad'hí 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 Poli by Chinese writers. In India this name for Magad'ha is unknown : but its origin may be traced through the Puráras. Drodorus the Sicilian says, that Pall-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-Ra'ma and Bala-de'va. Baladéva built three cities for his sons, which he called after his own Vol. IX.
name, Bala-déca-pattan: but they were better known under the name of Bàli-pura, and Mahá-Báli-pura, pronounced Mivelivoram 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 Ràja-grǐha, or Rája-mahl, the royal mansion, or city; and which we must not confound with Raja-griha, the royal abode of old Sandiha. It is true, that according to some legends, current in the Deccan, the founder of Mahi-Bàli-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 Purànas; and that it is the story of the wars of Crishna, and Bala, or Bala-ra'ma with Ba'násura, who lived in the countries bordering upon the Ganges; and whose place of abode is still shewn near Purneah: 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 Lexicons 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 Puránas he is said to be the son of Gada, also a brother of Crishna, to whom he gave the district of Gházipoor, the true name of which, is Gádi-pura, from Gada. The country of Canouge fell also to his lot: and from him that city is also denominated Gádipoor, or Gada-pura. Vali was also the name of a chief of the monkies, and his son was equally called Angada. Ba'na'sura built three cities, which Bala took, and destroyed; and then rebuilt, for his children, calling them after his own name Báli-pura; as Gada called his own place of abode Gádi-pura. The children of Bala. are not mentioned in the Purán'as, and he is never called $\mathrm{Ba}^{\prime} \mathrm{LI}$ there: but it is admissible, particularly in composition. He is also called Hala and Háli :
and Sa'La-va'hana is more generally denominated Sa'li-va'hana. Palipotra, or Palibothra, according to Drodorus 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-putra; as the founder of Patna, under that of Pa'tali'-putra, or the son of the Goddess Pa'tali': Angada, his sirname, was given to him from the country of Anga, which had been allotted to him. Thus Magad'ha takes its name from thé sage Maga, who settled there. These three cities were to be destroyed by water, and this is true of Mahá-báli-voram near Madras, and of Páli-putra on the Ganges : the third is yet existing in the province of Beder in the Peninsula, and its name is Bali-gríha, or Báli-pura. It is more generally known under the name of Muzaffernágar: It is not far from Cundana-pura, where king Bhishmaca resided, and was the father of Rucmani, Crishna'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 Baza; 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 Pauranics. The kingdom was restored to the posterity of old Sandiha, who ruled there, for a long time, under the name of the Va'rhadrat'has, or children of Vhîhadrat'ha.

These are not then the Ba'li-putras, or Pa'libothri kings, who sate on the throne of Magad'ha, in the time of Alexander, and his successors. Before the conclusion of the great war, the conquerors gave various districts to theirfriends. Duryódinana gave the district, about Bhagulpoor, to his friend Carna. Crishna, long before, had given the country, now called Bhója-pura, to his friend and re-
lation Bhója; and Bala-Ra'ma placed his family in the country about Raja-mahl: these were of course Ba'li-putras : but they could not be the Ba'li-putras, or Paili-bothri kings, in the time of AleANDER, and his successors. We are informed, in the Bhagavata, that king Mahí-Nanda assumed the title of Bali, and Maha'-bali : consequently his offspring, who ruled after him, for a long time, were Ba'ly-putras : the kingdom of Magad'ha was called the kingdom of Báli, Páli, and Poli: the dialect of that country is, as before observed, indifferently called Báli, Páli, and Magad'hi in Ceylon and the Burman Empire, according to Captain Mahony, Mr. Joinville, and Mr. Buehanan. The city, in which the Ba'li or Pa'li-putras resided, was of course denominated from them. Bàli-putra, or Pàli-putra; and by the Greeks Pàli-bothra, and, in the Peutingerian Tables, Pàli-potra. Their patrimonial estate was called Paliputra-man'dalam, the circle, or country of the Palli-putras. This simple and obvious denomination, was strangely disfigured by Ptolemy, who calls the city, Pàli-bothra of the Mandalas; instead of saying that it was in the Mandala, or country of the Pálibothras, or Bàli-putras.

Tradition says, that Maha'-bali built a country seat, on the banks of the Soane; round which a small town was soon formed, and called Ma'ha-ba'li-pura, (or Mawbellypoor in Major Rennell's Atlas). There I was looking, at first, for Bàli-putra, or Palibothra. Patna, or at least a town called Cu'sumá-puri, was built, according to the Brahmàn'da, by king Udasi, grand father to Ma'ha-bali, about 450 B . C. It was then called Cu'sumá-puri, or the flowery city, and Padmá-vati, or the city of the Lotos. Tradition says, that the old site of this city was at Phulwári, which, in the spoken dialects, signifies the same with Cusumápuri: but, the Ganges having altered its course, the city was gradually removed from Phulwári,
to the present site of Patna; which was called also Pátali-putra, from the son of a form of De'vi, with the title of Pa'tali'-devi', or the thin Goddess. Her son was, in general, called Pa'tali-putra, and the town Pa'tali'-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 Patteáli simply, at the time of the invasion of the Musulmans, as it appears from Ferishta's translation by Colonei Dow: and the inhabitants are considered there as robbers, and, of course, ranked with those of Bhojepoor and Kuttehr. The last district, formerly called Castere, and now Cuttere, 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 Musulmans 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 Padmàvati or Patna: and one of his titles, in that Puráría, is Maha-padma-Pati-Nanda, or Nanda the great Lord of the Lotos. Like Para'sura'ma, he either destroyed, or drove out of his dominions, the remnant of the Cshettris, or Military tribe, and placed Súdras in their room. These were the Barons of the land, who often proved troublesome. Ra'ja 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. Maha'-padma, or Bali, was born of awoman of the Súdra tribe. According to Prolemy, the country of the Báli-putras extended from the

Soane, beyond Moorshedábad, as far as Rangámatty; which he places in their Mandalam, or country, under the name of Oreophonta, as I have shewn in my essay on the chronology of the Hindus: in the west, he mentions Sambalaca, now an assemblage of small huts, on a sandy islet, opposite to Patna, called Sambulpoor, and Sabelpoor in Major Rennell's Atlas,
II. The Nubian Geographer, with Renaudot's two Musulman travellers, place together the countries of Háráz (Orissa) Mehráge, and Mábed or Máyed, Táfek or Tucha (now D'hácá, and Mougá, or the country of the Magas, or Mugs, now Chittagong, Arracan, sce. The country of Mehráge, says D'Herведот, 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 Mahárájia, or Maarascia 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 Maha'-ra'Ja', even to this day. Their country, in general, was called Zápáge or Zábája, which is a corruption from Járá, or Jäbá, as it was called in the west; and was also the name of Sumítrá, according to Prolemy, who calls it Jábá-diu, and to Marco Paulo. In the peninsula of Malacca was the famous emporium of Zába: Zábája, in Sanscrit, would signify those Zába. The Empire of Zábáje 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 Prolemy. 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 Maha'rája' of Zabbáje. The wars of this Mahárájá, 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 Ma'la'fan Empire was in its greatest splendor. About two hundred years ago, the $\mathrm{MA}_{\mathrm{A}}$ HA'ra'Ja' of Bengal sent a powerful fleet to the Maldivian islands. The King was killed in the engagement, and the Maha'ra'ja'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 Maha'ra'ja, 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 as Rangámatty, then called Cu-súmá-puri, and a considerable place, where the King, or Maha'raja', 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 Maha'ra'ja' 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 Gangetic 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 Voute, sent his General Tchang-kiao, with a retinue of a hundred men, to visit the western countries, such as Khorassan añd Meru-al-náhár.

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 *. The same passage establishes also a regular intercourse between the Roman merchants and China, at that early period. This singular passage I shall insert 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 chiet of this embassy was called Rachias, who being interrogated, whether he knew the Seres, or Chinese, answered "Ultra montes Emodos Seras quoque ab ipsis aspici, notos etiam commercio. Patrem Rachie commeasse eò: advenis sibi Seras occursare." Then Pliny says, "Cetera eadem que nostri negotiatores: fuminis ulteriore ripá merces positas juxta venalia tolli ab his, si placeat permutatio." This I shall take the liberty to paraphrase in the following manner. Rachiss answered, that the Seres lived beyond the Haimada, 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 suppose) went there, the Seres 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 Seres behave to them as they do to our merchants. Rachia is derived
from the Sanscrit Racsha, pronounced Rácha in the spoken dialects: and Ráchya, or Ráchia is a derivative from. It is the name, or rather the title, of one of the heroes of the Purínas. Another derivative form is Racshita, and is the name of a priest of Budd'ha in Ceylon, mentioned in the sixth vol. of the Asiatic Researches*; where, according to the idiom of the spoken dialects, he is called. Ra'c'hita-budd'ha: and I suppose, that neither Racsha, nor Racshita, can be properly used, but in composition. Yarchas, the name of a Bráhmen, mentioned in the life of Apollonius, is probably a corruption from Rác'hyas. 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 Magad'ha, or the Gangetic provinces: where their legislator Budd'ha 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 Prolemy, 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 Bund'ha 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 Magad'ha and China; till the extirpation of the religion of Budd'ha, and the invasion of the Musulmans.

The account given by the son of Rachias, has nothing very extraodinary in it, when the whole is

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considered in a proper light; and it shews the carelessness of the Greehs 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 Pitris. The day is reckoned, from the first quarter to the last; and this is called the bright half, or the day of the Pitris; the dark half is from the last to the first quarter of the next moon; and this constitutes their night. When Piny says, that, in their country, the moon was seen only from the 8 th to the 16 th, he was mistaken; he should have said, that the bright half, or day of the Pitris, began on the eighth day, and lasted sixteen days, including the eighth: and then began the dark half, or night of the Pitris ; and, from these expressions misunderstood, the Romans concluded that the moon was not to be seen, in their country, during the dark half.
III. According to Mr. Deguignes, the king of Tientso, or India, sent men by sea to China, carrying presents to the Emperor, in the years 159 and 161.

The Chinesecalled India Shinto, and Into, 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 Mokiato, and Polomuenkoue, or country of Polomuen ; Moliato, the Magatta of the Japanese, is Magadha, including all the Gangetic provinces; and it was called Polomuen, from the famous Emperor Pulima'n, or Polomán, called by Deguignes, Houlomien and Holómiento. 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 Anonlhenk, and Anákák by the Tartars, who have no other name for India. Thus, in the Empire of the Burmahs, they call India Calingáhárit, from Calinga, or the Peninsula of India, with which they are better acquainted: hárit in their language, and harita in Sanscrit, signifies country; and the whole compound the country of Calinga. The metropolis of India was situated on the banks of the Kenglia, or Hengho, 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, Kupelé.

The name of the Metropolis was Chapoholo-ching, Kiusomopoulo-ching, Potoli-tsching, answering to Piitali, Cusumá-puri, the well known names of Patna. Chapoholo answers to Samalla, or Sambala, now Sumbulpoor, written also Sabel-poor, 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 Cutukilopoulo, which I must give up, unable to reduce it to its original Sanscrit, or Hindu standard.

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

In the year 473, the king of the country of Poli sent also embassadors to China. The kingdom of Poli is that of Magad'ha; for Magad'ha, and Páli, or Báli, are considered as synonymous, by the people of Ceylon, Siam, and the Burmahs.

In the year 641, the Indian king of the countries, belonging now to the Great Mogul, and included in the Mokiato or Magad'ha Empire, says Deguignes, 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 surprised at it. There the Chinese learned, that the Hindus called their country Moho-chintan, for Mahá-china-st'hán: in the Peninsula this word is pronounced Macáchina.

In the year 647, the Emperor of Mokiato, or Magad'ha sent again embassadors to China, as well as the king of Nipolou or Nepàl. In the following year, Taitsong sent an embassy to the king of Mokito, or Magad'ha. 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 Kielitie'; which, for a long time, had been in possession of the throne. Pulima'n was the last of the kings of the royal family of And'hra. This family is considered, in India, as a spurious branch; which circumstance is fully implied, by the appellation of Caulat'eya in Sanscrit, or the offspring of the unfaithful woman, and from Caulat'eya is probably derived the Kielitié of the Chinese. There is a Dynasty of Caulat'eyas barely mentioned by the Pauránics; and they are, pro-

## andgangam, \&c.

bably, the same with the And'hra-ja'ticas, 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 Pulima'n, the And'hra Bhrityas, according to the Purán'as, 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 Purín'as, that Mahananda, and his successors resided at Padmáoati, or Cusumápuri, 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 Cusumápuri; and Rang'amatti, near Moorshedabad, likewise, as well as the town of Hustinápoor. 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 Inda ; and it was only after perusing the Purán'as 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 Magad ha certainly resided very often at Patna, and latterly they forsook intirely Báliputra, probably owing to the vicinity of Gaur, the Rájáhs 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 agree-
able situation. Of the time of the total subversion of Bäli-putra, or Rája-griha, we cannot form any idea; but there is every reason to believe it took place at a very early period; for Páli-bothra is not mentioned in the Peutingerian tables, and Mágad'ha, or Patna, is pointed out as a capital city, under the name of Al-mágad'ha, or Eli-maide, Al-maied.
IV. The trade of Páli-bothra, and of the kingdom of Magad'ha, in its days of splendor, was astonishing, and is attested by Prolemy, Arrian in his Periplus, and the Peutingerian tables. The same is attested by Chinese historians, and the two Mohammedan travellers. From Páli-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, Almuiet, and Al-mujiat, or Patna, called also, in Sanscrit books, Magad'ha, as well as the country. This is mentioned in the Peutingerian tables; and the distance marked 700, which I take to be Bráhmeni coss, equal to 856 British miles. In the Peutingerian tables, Baroche is called Paricea, 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 NIlacantes'wara or Is'wara, with the blue nech. From Al-maied there is another road, leading through the Burman empire, Siam, and ending at Calippe, now Columpé, in the kingdom of Cambodia. According to the Peutingerian tables, this road went from Patna, first to the country of Colchi, called Chalcitis, Chalcis, by Prolemy, 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 Pitshiai. Then, from Colchi to Thimara, probably the Tomara of Prolemy; and the distance is 450

## ANUGANGAM, \&C.

coss, or 565 B. miles. Then to Calippe, or Columpé, 220 coss; or 270 B. miles. This route was certainly known to Prolemy, from whom we may collect a few more particulars. From Palibothra this route went towards the east, to Sagoda, Authina, Salatha and Randamarcotta. Sagoda is Sagow, on the western bank of the Burrampooter, and in lat. N. $24^{\circ}$ $35^{\prime}$, according to Mr. Buriow, in the fourth volume of the Asiatic Researches. This I mention, because it is not noticed in Major Renvele'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. Athina is Eetenah, to the westward of Azmerigunge: Nonnus calls it Anthené, and takes notice of its flowery shrubs*: thence to Salatha, or Silhet. The next place is Randamarcotta, which I suppose to be Ava, the real name of which is Amara-pura: it is called also Rád'hun-pura, according to Col. Symiss; and Randamarcotta appears as a compound of both. Amara signifies the immortal gods; and Rád'han, or Rád'há, are rendered in Lexicons, by (Amalaci) pure, (prápti) complete, perfect, resplendent. Thus Rádhámmara-pura, or Rád-hamara-pura, will signify the city of the pure and immortal gods. Instead of Radhámra-pura, we may say Rádhảmara cota, or the fort of the pure and immortal gods. Amar-pur, Amar-cote, Amar-ganh, 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 Amaracote, unless it were sanctioned by usage. The distance of Randamarcotta 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;

[^15]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 Amurodgur, 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 Burrampooter, according to Mr. Buchanans 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 Peutingerian tables. According to Dionysius Periegetes, it was called also the Nysscaan 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 Panjabi coss; 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:-


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


Some add 5 miles,

| Ganges, | - | - | - | - | 112 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Roditto |  |  |  |  |  |
| Rodpha, | - | - | - | - | 119 |
| Calinipaxa, | 325 |  |  |  |  |
| Some say, | - | - | - | 167 | 500 |

Conflux of the Jomanes with the
Ganges, - - omitted 625
They generally add 13 miles (638)
Palibothra,
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 yójanas, equal to 1012 British miles; and Major Rennele, after a laborious and learned investigation, finds 1030 miles between the Indus and Allahabad, through Delhi. But the royal road,

Vol. IX.
aecording to Pliny, from the context, and more positively, according to the Peutingerian tables, passed through Hastinapurr; which gives an increase, between the Indus and Allahabad, of ten miles nearly, making in all 1040 miles.

Megasthenes gives tiventy thousand stadia for the distance from the Indus to Palibothra: some read only ten thousand. Both nambers 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 Sancri-gulh, commonly called Sàcri-guld, of 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, aelded to 1040, give 1479 miles for the whole distance, from the Indus to Palibothra. The numbers, in Peiny, 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 495 , the distance from AllaFiabad to Palibothra, and the rest to the first sum of 390 miles in Puiny, which is certainly too short: and instead of CCCXC, in the text, should propose to read CCCCX, or 410 . Such transpositions of numeral letters are not uncommon in Phiny's text. This was the extent, says that author, of Alexander's conquests, from the Indus towards the east. We must not suppose that they extended no further than the Hyphusis, which he crossed; for Phegelas, or Phegeus, 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. Phegelas was probably the name of the city he lived in, which is called to this day Pagwáráh, or Pag-wálú, Phag-wárá, and Phag-wálá, be-
tween the Beyah and Setlej. Ser-hind is neither a Sanscrit nor Hinda denomination; but it is an IndoScythian compound, and signifies the limits or borders of Hind. The Cathrei, or C'hatars, 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 Biducshan, and the adjacent countries: and Ser-find 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 Hodu, 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 Nysscean road, from Pliny, the Peutingerian tables, Ptolemy, and the anonymous geographer of $R a-$ rocima.

From the ferry of Tor-Boileh, or Tor-Beilam, (or the black Beilam, ) on the Indus, to the westward of Peucolais, (now Pucauli, or Bír-wálá, called Pirhola, in the maps, and Parke in the Peutingerian tables,) to Taxila, on the river Suoarna, (now the Sone, the Soamus for Soanus of Arrian). It is called in Sainscrit, Tacshila; and its true name is Tacsha-Syála, according to the natives, who call themselves Syálas. Its ruins extend over the villages called Rubbaut and Pekkeh, in Major Rennelt'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 Syála to this day; and is a little to the north of Rubbaut. Tac-Syála having
been ruined at an early period by the Musulmans, it was rebuilt afterwards under the name of Turrukpehri; and a Perganah of that name is mentioned in the Ay'm-Acleri. But this last has met with the same fate as the former.

Thence to Rotas or Ruytas, called Rhodoes by Nonnus, in his Diomysiacs, who says it was a strong place. It is called Rages, for Rates, in the Peutingerian tables, and in the Pura'nas its name is Hridu, and that of its inhabitants Hridan.

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

Thence to the ferry over the Jailam or Béhat, and Ale.xandria-Bucephalos, near which is a famous peak, called the mountain of the elephant, by Plutarch** 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-Na'th or Bil-N'ath. It is generally called Bal-Na'th-Thileh, or the mountain of the Lord Ba'L; another name for it is Joghion-di-tibbi, or the tower of the Joghis.

Thence to the Acesines or Chandra-bhága, and the town of Spatura of the Peutingerian tables, called Simtura by the anouymous geographer, and probably
the same with Sadhora. There appears to be a transposition in the numbers expressing the distances.

Thence to the Hydraotes, or Ravi, (the Iriruati of the Purànas, and the city of Laboca or Lobaca, mentioned by Ptolemy, and which is the present Lahore. Its true and original name is Lavaca or Labaca, from Lava or Laba, the son of Ra'ha; and its present name is derived from Lava-wíra, the place of Lava or Laba. Its distance from Sangala in Ptolemy, with its name, have indaced 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 Sangalá, not Sangäla. There are two places in Prolemy, one called Laboca, and the other Labocla, 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 Zadadrus, (the S'atódara or S'atadru of the Puránias, or with 100 bellies or channels; ) and to the town of Tahora, in the Peutingerian tables (now called, with a slight alteration, Tehaura, and in the Purán'as, Tihotra and Trigarta; there Seminamis, or Samidevi', was borin).

Thence to Ketrora, in the same tables, for Cshatriwoirá, or C'hetri-zeár'í, the metropolis of a powerful tribe of Cshetris 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 Cetri-boni by Pliny, with the epithet of Sylvestres, or living in forests; and C'shatrivana, in Sanscrit, and C'hetri-bán, in the spoken dialects, signify the forest of the Cshetris: C'hetriwárá, or Cotrora, is now Thanehsar ; in former times, the metropolis of these Cshatris.

Thence to the Jumna at Cunjpoora, and to the Ganges at Hustinapoor, or Hastina nagara, called in the West, and in the Ayin-acberi, Wustnaur, for Hastin-nora. It is the Bacinora of the Peutingerian tables, the Bactriana of the anonymous geographer, and the Storna of Ptoremis. In the Greek original it was written BACTINOPA, Bastinora, altered afterwards into BACINOPA, and BACTPIANA, Basinora, and Bastriana; and the latter was mistaken for Bactriana. Indeed the Greelis could hardly write Wustnore, or Wustinore, otherwise, than OYACTINOPA, or BACTINOPA, Ouastinora, Wastinora, or Bastinora: they chose the latter. Hastina-nagara, commonly called Hustiná-poor, is about twenty miles S. W. of Dárinágur, 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 Peutingerian tables we are presented with a route, leading, from Hustinápoor, into Tibet: the first stage of which is Arate, called Heorta by Prolemy, but transposed by him. It is Haridwar, of Hardwah, as it is corruptly pronounced by many; and in Arate and Heorta, we can retrace the original name Hartoa, or Hardwah. The second stane 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 Prágh, often pronounced Parágh, generally with the epithet of Déea, or Dee, Deo Prágh, or the divine Prágh. 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 Hustinapoor to Allahabad, Pliny places the town of Rodapha, called Rapphe by

Prolemy. Its present name is Hurdowah, or Huldowah; for both are equally in use.

The next stage, according to Pirny, is Calinipara, the true name of which was Cálini-basa, implying its being situated on the Calini, a river which retains its ancieat name to this day: but the town is now unknown.

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

From Allahabad to Palibothra, the road, it seems, diel lie along the southern bank of the Ganges: and in Ptolemy we find the following places. From Allahabad to the river Tuso, now the Fonse: and, eighteen miles from its conflux with the Ganges, in a S. W. direction, he places a town called Adisdara, probably the same with Attersar, or Attersarour in the same place; and, about one mile and half to the north of the Tonse. Thence to Cindia, now Cauntee, on the banks of the Garges, 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 evcroachments and shiftings of the Ganges.

The next is Segala, now Mirzapoor, and connected with another called Sigala, or rather Sagala, now Monghir. The present Sanscrit name of the former is Vind'hyóciaisini, from the Goddess of that E 4
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-ca'lí, or the beautiful Ca' $\mathrm{li}^{\prime}$; though she by no means deserves that epithet. This place is supposed to communicate with the other Sagala or Monghir, through subterraneous passages, opened by lightning; which sunk under ground at Vind hyávásini, and re-appeared at Monghir, at a place dedicated also to the same Dévi, though little frequented. This accounts for these two places having the same name in Ptolemy; thongh these names are now entirely unknown to the Hindus. But Bhadra-Ca ití, and $\mathrm{Su}-\mathrm{C}^{\prime}{ }^{\prime} \mathrm{li}$ ' are perfectly synonymous: the latter, however, is seldom used as an epithet of that deity, except when persons, eithei male, or female, are denominated after her; then they never use BHADRACa'li', but they say Su-Cálí. Miraupoor is sometimes called the St'hún, or place of Bhadra-Cást', which appellation is distorted into Patrigatly, in the voluminous treatise of the religions ceremonies of different nations.

The other Sagala, or Monghir, is called Mudgala in Sanscrit, as 1 am told, in a derivative form from Mudga, its name in the imperial grant found there: for Mudga-giri signifiee the hill of Mudga. In the Deccan, Ptolemy mentions two places, neanly at the same distance from each other, one called Petirgala, and the other Modogulla. Madighir, or rather Mo-du-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, giri hill, grîha fort, vana, or bán forest, \&cc. thus we have Modu-pura, Modugiri, Modughir, Modu-vana, or Modu-ban, \&c. That Monghir was called Mudga-giri, Mudgala, and Sagala, is certain; and that Mirzapoor was denominated
equally, Buadra-Cál'i or Petrigally, and Sagala, is equally so; like the two places in the Deccan, called Petir-gala, aud Modogulla, by Prolemy. 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-bän signifies the beantiful grove: Modroa, the name of several rivers, implies their being delightful. Thus Moda-giri, or Modu-gir, in the spoken dialects, signifies the beautiful hill; Modu-gali, the beautiful pass: thus Sancri-gali, now Sacrigulley, implies the nasrow pass. The word gali is not Sanscrit; but Sancri is derived from Sancirióa: 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 pass, between a projection of the hills and the Ganges. Several places in India are denominated Su-golley, Sugouley, and Sucouley, from their being situated near a pass, either through mountains, or almost impervious woods. Pliny seems to suppose, that the Royal, or Nysscean road passed through Pacli, or Pescolais; but this is highly improbable. It went directly through the ferry of Aornos or Attock-Benares, to Nysa. Aornos, or Averous, is probably derived from the Sanserit Varan'asa, 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 ogether by iron links. He then says, that there were twenty-six and one fourth, of these Cos, to one degree: each $\operatorname{Cos}$ consisted, of course, of 13911.77 feet, or 4637.26 yards.

V. From China, says Ptolemy, there were two

roads : one leading to Bactra; and the other to $P a_{-}$ ribothra. The author of the Pcriplus 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 Bactra, or Balhh; and then, down the Ganges, to Limyrica. He certainly meant, that the goods were sent, part to the west, 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, Mura, Mur, and Muri; which, in a derivative form, becomes Muruca and Murica; from which, Arabian travellers made Aimurica, and the Grechis Li-mybica. In Sanscrit, but more particularly in the spoken dialects, the derivative is often used for the primitive form. Thus they say, Bengála for Benget: and for Lar, they said Larica, a district in Gurjarit. With regard to this track, from Magadha, and Palibothra, to China, the Peatingerian tables afford us considerable light. From the Palite, the Bolito, and Cabolitce of Prolemy, now Cabul, there was a road, leading through the mountains, north of the Panjab, 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-dwár. 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-Sarovaru, or Lancá lake. This information I received from several natives, who had travelled that way. The road then goes to Aspacora, or Asparaca, a place in Tibet, mentioned by Prolemy: there it met with another from the Gangetic Provinces; and passing through Parthona, probably now Kerten, or Kelten, with the epithet
of Ponjuling, from which is probably derived the Paliana of Ptolemy. This road, in the tables, ends at Magaris, corruptly for Thogaris, or Thogara, in Prolemy; and now Tonker, near Lassa, on the river Calcherv, (called, in the Peutingerian tables, Calincius). The mountains to the north, are called by Prolemy, 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 Carsania, near the Ganges; and probably the Cartasina of Ptolemy, now called Carjuna, near Burdwan. Between this, and Aspacora in Tibet, the tables place a town called Scobaru, which strange and uncommon name is still preserved, in that of Cucshabaru, (in the maps, Cocsabary,) near Jarbarry, to the north of Dinagepoor. Cucshabaru is the epithet of a giant, living in the mountains to the north of India. His real name was SthulóDARA, and, from his insatiable and ravenous voracity, he is surnamed Cucshábariá, and he is often mentioned in the Purán'as. 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 tea, 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 Sillhet.

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 anthor, there is a nation of men, of a short stature, with a large forehead, and flat noses. They are called Sesatce, (and by Prolemy Basade). 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 Hindu pátrć. These leaves are probably those of the Dhác tree*, used all over India to make baskets, and made fast together, with skewers, from the fibres of the bambu, or other similar plant. These Basade were, in my opinion, a wandering tribe, still called Bisáti $\dagger$, who live by selling smatl wares and trinkets; for which purpose they constantly attended markets, fairs, and such places, where they think they can dispose of their goods. These Bisíti, or Besada, from their features, must have belonged to some of the tribes living on the eastern borders of Bengal, whose features are axactly such as described by the author of the Periplus. Mr. Buchanan mentions two places called Palé, perhaps Pou-cul, and Palaung, in the mountains to the N. E. of $A v a$, where they pickle the tea leaves, used all over the Burman Empire.

There is another route, in the Peutingerian tables, leading from Tahora, (or Tahaura, in Major Ren-

\author{

* Butea frondosa. <br> + See Asiat. Researches, Vol. 7th. p. 466.
}
nell's map, ) to Elimaide, or Patna. From Tahora to Palipotra, 250 cos: to the Ganges 500 : to Elymaide, 250 : in all $1000 \cos$, or 1228 B. M. Here we see, that Palipotra cannot be, either Patna, or Reijamahl: besides, the distance is too great, in a direct line. There are three towns, thus called, in India: the first, or Pali-putra near Cabul, called Palpeter by Danville, is unconnected with this route. The second is Báli-putra, or Räjamahl, which is too far to the eastward. The third is Páli-putra, in the interior parts of India, and is now called Bo-Pál, for BhuPala. It is mentioned by Ptolemy, under the name of Siri-Palla for Sri-Palli. This, I conceive to be the Palipotra, of the Peutingerian tables, and accordingly propose the following correction. From Takora to Patipoira, or Bopaul, 500 cos , or 639 B. M. Thence to Elimaide or Patna, 500 cos. also. Between Tahora and Palipotra, the route passed near the mountains of Daropanisus, which are those of Dhár. Between Palipotra and Patna, there is a station 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 Ching, on the authority of Chinese History; and their tracle, to an island and kingdom, called Founan, 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 Zäpige, 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 monarchs. These travellers consider Mábed, 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 $C u j$ and $M u j$; and the appellation of Mujet may be derived from Muj, whom I suspect, however, to be the same with the Magas, or Burmahs, who greatly imitate the Chinese masners. Thus, for Magog, they say Magiuge. After the death of PuIIMAN, the whole country was thrown into confusion, according to the Purán'as 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 Pauran'ics, the And'hra-burityas, 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 Visvasphurit, the thunder of the world. He exterminated the remnants of the Barons or Cstuettris: and filled their places with people of the lowest classes: he drove away also the Brálmens; and raised, to the priesthood, men 'of the lowest tribes, such as the Caivartas, boatmen and fishermen, Patis, Pulindas, and Madracas: but these Bratimens were no better than Mlech'has, or impure and base born men. These boatmen and fishermen, being used to
'ANUGANGAM, \&C.
live upon fish, would never give up their favourite food, when raised to the priesthood: and their descendants, the Bengal Bráhmens live upon fish even to this day. The same circumstance is mentioned in the Vishmu-Purin'a. Then, aftewards, a Guptacansa, or obscure race, will reign all over Anu-Gangam, or the Gangetic provinces; some in Sácéta, (or Oude) others at Padmávatí, (or Patna;) Prayág, (or Allahabad) Mathurá, (or Muttria) 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 Pauránics.
VI. The following towns are placed, obviously, in the country of Tibet, by Profeny, and in the Peutingerian tables. Their names are Aris, Orosana, Aspagora (or Aspacora, Paliana (the same with Parthona,) Thogara, Abragana, Ottorocoras, Solana, with the river Bautes (or Bautisus). These are in the country of the Batte, (or Budtan) seemingly limited to the districts round Lassa; which, it is highly probable, was originally the case. The situation of Aris is at the meeting of two roads; one from Tahora, and Harkwar (probably the Eorta of Prolemy; ) 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. Thogaro, at the other extremity, and on the river Calincius, is obviously the present Tonker, on the river Calchew, near Lassa. The distance between Aris and Thogara, in the Peul tingerian tables, arising froin the intermediate ones, amounts to 175. But these cannot be miles, nor even cos: let us suppose them to be 157 yôjañas, of 771. B. miles; which would be sufficiently accurate. From Aris, to Orosana, (the Thubrassene of the tables, and now called Ari-jun,) 40 yójunas, or 196 B.
miles. Then, leaving Kheiron (the Chiron of the maps, ) to the right ; the route proceeds to Aspagora, of which the present situation is unknown: distance 52 yóanas, or 255 miles. Thence, to Parthona (probably Carthona, or Calthona, and, of course, the town of Kelten or Kerten, on the Sampu:) distance 15 y 6 janus, or 73 B. miles. According to Ptolemy, the horizontal distance, between Aspacora 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 Purangír, 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 Ponjulin; and Parthona (or rather Carthona,) from Kelten. From this place to Thogára, (or Tonker,) 50 yójanas, or 24.5 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 Aspacora, towards India and the Ganges. About seventeen years ago, I had a long conversation with Purangír, on the subject of Aspagora, or Aspacora. 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 Sïpa, or Sápu, which was a very common name of places, in Tibet; and that Sipá-gor, or Sápu-gor, Sipú, or Sapu-khar, were perfectly idiomatical; though he did not recollect any place of that name. It struck me then, that this sas also the name of a famous river, in that part of India, mentioned by Ctesfas, 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 Teestah, in Bengal. Photrus 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 furlong broad, or two stadia, called Hyparcho. Pliny, who had seen Ctesias's works, long before Photius, says it was called Hypobarus, and flowed from the north into the Eastern sea, (or gulph of Bengal, called, by the Pauránics, 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 Amberbearing trees, the fruit of which they eat; and, with these insects bruised, they dye stuffs, for close vestures, and long gowns, of a purple colour, superior to the Persian. These mountaineers, having collected the $A m b e r$, 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 sell also, their swords, bows, and arrows. Every fifth year the king (of Magadha) 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 Electrum. Till very lately, authors differed, as to the production of this curious drug. Some imagined, that it was the indurated juice of some trees. Others, Vol. IX.
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 Cochineal. 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-c'hora; and to the river, that of Hyparcho, or Hypobarus: but Hyparc'ho is but a corruption for Sypa-c'hor. Sypobári is the Hindu name, answering to the Tibet one of Sypa-chor: for Bári 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 $A s$ pacora. 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 $401 \mathrm{~B} . \mathrm{C}$. Ctesias was taken prisoner, and being a physician, became a great favorite with Artaxerxes Mnemon. Sipa-gor was obviously on the road, between Ari-jun (or Aridsong,) 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 Sïáácihor, and Ponjulin, as given, either by Ptolemy, or in the Peutingerian 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 accuracy in Ptolemy, and in the geographical works of the ancients, we shall not be surprised at it. It appears, however, that Sibá-c'hor was situated in the beautiful valley of Tankya, near the streams which form the Teestah. There is a place called Sipá, on the road, from Napál to Lassa: but it is too near Napál. Prolemy 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 Ptonemy, who places Aspacora on that river. The southern branch of this river, the real Bautisus, he derives from the country to the west of Aridsong, and makes it pass through the valley of Tankya. The town, called by him Solana, is probably Ujuidin, called Ujuk-link, in the map of the Lamas. Thus they call Punjulin, Pusuk-liang: but my friend Purangi'r 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 Ottora-cora, with a city of the same name, is pure Hindu: Attáro-ghur, the eighteen forts, or Rijaships. It is the country of Napaul, now called the 24 forts, or Rájaships. I am informed, that Napaul proper consisted, originally, of eight forts, or Rájaships; in Hindu, At-ghur; perhaps, the Attacori of Pliny: for the number of vassal Rájahs, and tributary forts to Napaul, must have been constantly fluctuating. But, let us return to Ctesias, and his account of the inhabitants of the southern parts of Budtan, 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 Hindu, 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 swiftpaced, and running down their prey like Gre-hounds. These Dog-faced Syloans, are called Swána-michas, 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 Icthyophagi, or fish-eaters, on the coasts of Persia, are called in Sanscrit, I am told, Sir-matsyas, or fishheads, and in Persian romances, Ser-mahi; which signifies the same thing. Calystrii seems to be derived from the Sanscrit Cauleyaca-Siras, or CauleyáSiras, 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 faces, 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: but, I believe, he is rather in too good case, for a man living upon so scanty an allowance.

The next place in Prolemy, is Abragana, placed by him to the S. E. or nearly so, of Paliana, and Aspacora. This I conceive to be the large district of Bregion, 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 word, from Ser, the name of China, to this day, all over Tibet, and implying a country subject to Ser. This Serí is, much more probably, the ancient and famous city called Dsiri, Siri, and Sera, to the S. E. of Lassa. 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 Tiberoboas, or Taberuncus. This river was to the eastward of the Ganges; for Dandamis, or Dama'damis, says, how can Alexander be called the conqueror of the world, whilst he has not yet crossed the Tiberoboas, or Tyberaboas: let him only go beyond the Ganges, \&c. The country of these sages was probably Tirhoot, in Sanscrit, Tribucta. This word has been distorted various ways, which have very little resemblance with their primitive and original form. The district of Tirhút consisted originally of three divisions; the first of which is called to this day Tirhát, or Tyroot ; the second is denominated Ti-Ru-hut; and the third, Ru-Ti-hut. These words are also pronounced Ti-Ru-buct, Ru-Tibuct. Thus Sri-hut, is now called Silhet, and by Arabian authors, Sarirat. Tribucta is derived from Tri, three, and Bucta, from a verb implying to foster; either because there were three Rájas, fostering the whole country, or one Rája, who alone fostered the three districts, and we may say either Tribucta, or Tribhuc.

Its capital city is Durbungah, by many derived from Tir-bucta, or Tirbhuc. From Tirubucta, and Tirbucta, the name of the river Tiberobous, or Taberuncus, may, possibly, be derived. Some learned Pandits derive the etymology of Dur-bungah from Dwára, or Detwar, 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 Dwára-bangah, Dewára-bangah, synonymous with Dewar-báha, 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 Bracmania of the anonymous geographer: for the greatest part of Tribuct is in the Indian Serica of that author, and, of course, belongs to the Rajáship of Napál. Mr. Danville was induced to suppose, that the country of Bramsong was the Bracmania of the anonymous geographer of Ravenna; because the French say, Brámes, instead of Brahmens; Tir-hut, called also Mithila, and Mait hila, is famous, from the most remote antiquity, for the learning of many Brálmenical families, residing there even to this day. The appellation of Bramsong 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 Mahá-Bhárata, Varma-désa, and placed in the east, seemingly, in opposition to Sarma-désa, or Ethiopia. The names of Magad'ha, or Mabed, have been distorted, by Persian and Arabian authors, into Maber, 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 Mábed were called Birdowal; which
may be a corruption from Vrish-bala, or Vrijabala, pronounced in general, Brijbala', and Birjwallá. This was also one of the many names of Balin, the founder of the Dynasties of the And'hras, and And'hra-bhrityas.
VII. From Gaud'dêsa, Gaudi-oarsha, or Gaudrearsha, its inhabitants are called Gadrosi, by Arria n : their country Gandaris, by Drodones the Sicilian, and Goryandis, by Nonnus in his Dionysicas *, and this last comes nearest to Gaúri-désa. This passage is really curious and interesting. The poet is enumerating the various nations which joined Deriades, or Duryód'hana, and Morrieus, the Mahá-Rájá, 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 Utcala, now Orissa: formerly inhabited by a warlike race, at last extirpated by the Carn'as, or kings of Magad'ha, according to the inscription on the pillar at Buddaul. Ut-cala, or Ud-cala, implies the great, and famous country of CALA : and, in the spoken dialects, as well as in Latin, Udcala, may be pronounced Uc-cala, as Ac-currere, for $A d$ currere. Nonnus gives to Gaura-désa the title of divine, from its capital city, which was originally a place of worship, in a forest, dedicated to the goddess Gaúri. From this circumstance, it is called Corygaza, by Ptolemy, from the Sanscrit Gaúri-ghosha.

The country of Oita, or Oëta, is that of Oude, with forests in the northern parts, still abounding with

[^16]elephants. The town is situated on the Gagra or Sarjew, called after it, the river Ö̈danes, 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 Athénagara, or the town of Athe, 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. Danville'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 Prolemy, being very little disfigured, may be easily brought again into their proper order and situation. The town of Athe (or Oeta) is Oude ; Suan-nagura, for Suan-nagara, is the Nagara or town of Sewan, in Sircar Sarun: Cassida 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 Dhaca. S'clampura, from the Sanscrit S'ailam-pura, or the Stone-town or fort ; and in the spoken dialects, Pat-tar-ghar, is near Hardwár. The kings of Gaida were not known till the declension of the empire of Magad'ha: until then they were vassals and tributaries. They extended, afterward, their dominions as far as Allahabad, and assumed the titles of Mahárájas : and Bengal is called Maarazia, or country of the Mahá Rajá, by Nicolo de Conti, who visited it in the fifteenth century.

Tradition says, that Buddha-sinha, emperor of Gauda, was in possession of Benares, at the time of the invasion of the Musulmans; and this is con-
firmed by an inscription found near Benares some years ago, and inserted in the fifth volume of the Asiatic Researches, but without a translation. It was written in the year of Vicramaditya 1083, answering to the year 1026 of the Clristian cra. There it is said, that Sthirapa'la, and his brother Vesantapàla, the sons of Bhupa'la, king of Gaura, had erected a most sumptuous monument, still existing, at a place called Sarnáth, near Benares. This monument of Bhaudd'hist kings is mentioned by Tavernier, who mistook it for a sepulchral monument of the kings of Boutan. S'thirapaila is mentioned under the name of Dhirapaiaa, in the list of the kings of Bengal, in the Aytn Acberi; by which it appears that they pretended to be descended from $\mathrm{BH} \AA$ gadatta, the son of Naraca, king of Prágyotisha, now Gauhati, beyondGualpara, on the borders of Assam.

Naraca was put to death by Crǐshna; but he restored the kingdom to his son Bhágadatta.
VIII. The country of Magad'ha was thus cafled from the numerous families descended from the sage Maga, the offspring of the sun, and the grandson of the venerable Twashta'h in the west. They came into India in the time of Crishna, at the request of his son Sa'mba. They settled in the province of Cicaita, now south Bahar. There are two tribes of Bráhmens in India: those of Canyáculja, or Canoge; and the S'acas or S'acalas, thus called because they came from Sácam, or Sáca-dwipa. 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 Bráhmens in India are called Canyácubja, because that was their first settle-
ment on theirarrival in India. It is universally acknowledged, that the kings of Magad'ha 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 Magad'hi, Báli, or Páli 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 Jina: 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 Jainas 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 Magad'ha is become the Sanscrit of Ceylon, Siam, and the Burman empire, where it is called indifferently Báti or Magad'hi. Captain Mahony writes that word Magedee; and Mr. Buchanan, in his learned and interesting Essay on the Religion and Literature of the Burmahs, calls it Magata. Both say that it is the same with the Báli, or Pali, 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 Pali is written in Aracan, Palit, where the letter T has a very peculiar sound. The country of Pali, or of the children of Pali, or Balt, the same with Maha-nanda, according to the Puráras, included all the country to the south of the Ganges, from the banks of the Soane to the western brauch of the Ganges.

The Báli characters, either square or round, are
obviously derived from the Sanscrit; but 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 decypher 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 Sutas, 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, Bhát, vulgarly pronounced Bhat. It is not a Sanserit appellation, though asserted to be derived from it. But the original name, as it was pronounced several hundred years ago, was Bárdái or Bárdáhi, though some think it a different name, applied to the same class of people.

Bhát, or Bhat, is derived from the Sanscrit Virta, or Bar'tù; and which is the same with the English word and the German wort, a word. In the west, Bhats were equally called Bardi in Latin, and Bhardha in Welsh. They were also called Vates, from fari, fatus sum in Latin, the same with Vártá, 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 Ubacha, 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 Värttá ; but my learned friends are of opinion, that it comes from Bhar-danam, 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 Gurjarat ; being next to the Prad'hím, or prime Minister (called Pardon by Mr. Lord), though independant of him.

The famous Chandra, or Chanda-Bárdäi was Bard to Prïthu-Ra'Ja, King of Dilli, 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-Acberi. He was a favorite of Devi, and was Tri-Cála, knowing the past, present, and future. The title of Bárdäi is translated musician by Abul Fazil*. His functions, both in the field, and at home, were exactly those of the ancient Bards 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 Prĭthu-Ra'ja, 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 Cárticéya-Swémí, in the fort of Sancara ghar in Sinhala, or Ceylon: which place is resorted to, equally by orthodox Hindus, Bauddhists, and even Musulmans. He was accompanied by Carna-Daharya, king of Magad'ha. Prĭthu-Raja 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 Prïthu-ra'ja's wars with

[^17]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 Sid'dhas, the Charan'as, and the Cinnaras are the three classes mentioned in the retinue of the Gods, besides the Puróhita, or high priest: the regent of the planet Ju piter enjoys that high office, among the Gods; and S'ucra, who presides over Venus, among the giants. The Sidd'has are priests, and persons of uncommon learning and deep knowledge, to whom nothing is impossible. The Cháran'as are really the Bards of the Gods : and were probably the same with theSaron class of Druids, called also Saronides. The Cimnaras are historians; and the Charran'as are also acquainted with the genealogies of the Gods, and of mankind. The bards of mortal men were also called Cháran'as, according to Abul-fazil. Every great man in India, had Bhats in his retinue: the practice is still kept up in Gurjarát ; where they are highly respected to this day, according to my Pandit, who is a native of that country. The Bhats or Bhactas, and Cháran'as, are mentioned by Abul-fazil, in his description of Subah Gujarat. Their employment, says he, is to sing hymus, 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 Cháranias : but my Pandit says, that he never knew of any, Chàran'a being really the Sanscrit word for Bhat or Bhactu. Charana, their ancestor, is said to have sprung from the sweat of Mahade'va, who intrusted him with the care of his Ox Nandi, who resides in the white Island. But I am told, that, in the Puránas, it is said, that they were born from the churning of the right arm of Ve'na, father of Prïthu or Noar. Bards, in this part of India, being with-
out employ, are become a most despicable race of men. They are more respected in the Deccan, according to Major Mackeazie, who says, that they are generally called Cavisars, from Cávyéswaras, or the Lords of the Drama.

The Merchants of Magad'ha formed not only a peculiar class, but also a particular tribe, called the Magad'hi tribe. It scems, 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 wartiors by the mother's side, according to Mr. Colebrooke's account of the Hindu Classes. According to the Vishnu-pura'n's , the kings of Magad'ha originally resided at a place called GiriVraja, or Giri-Braja. Vraja is synonymous with Ghosha, a herdsman, also the abode of a herdsman: and being situated in the hills, it was called Girivraja. From that circumstance, the kings of Magad'ha were, till a very late period, called V raja-balas, or rather, in the spoken dialects, Vraja-wàlics, or Braja-walas, distorted afterwards by Musulman writers, into Birdaoval, according to Herbelot, and Birdawal according to Abulfeda; whosays, that it was also the name of their metropolis. Giiri-Braja was situated in the province of South Bahar, among the mountains of Sivira, now called the Rajia-gir, or the Royal mountains: but more probably the real name was RA'JAGRǐha, 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 throne was at a place called Asana, above Gáyá, on the river Balga, now Fulgo, called Cacuthis, by Arrian. Asana signifies a Royal seat, or throne: and Ptolemy mentions, also, a place of that name, Asana mára, or the destroyed thone. It is called Pràcjyotisha in the Puránas, and its remains are near Go-háti, on the frontiers of Assam.

There, among the Raja-grǐha mountains, the unfortunate Jarasand'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 Pújá is there performed, first in honor of Crishna, and the five Pándavas: then with flowers in honor of old Sandiha, and his son Sahadéva. 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-Sandha is represented there, and also from other circumstances, he is fully entitled to the epithet of Hercules or Hara-cula, given to him by Nonnus in his Dionysiacs.

The 'Sinhálas, according to Capt. Mahony, say that Budd'ha was born in the country of Maddadesa (Magadha-desa) in Dumba-deeva (Jambu-dwípa,) at a place called Cumbool-wat-pooree, (Camalá-vatípuri) : and that he died at Cooseemapooree (Cusumápuri) in the same country. Camalávatí-puri is the same with Padmávatí-puri, or the city of the Lotos; which we have seen is the same with Cusumápuri, now understood of Patna. It is added, that he
died at the court of king Mallatel, which should be Mahá-ballala, or Má-vallala, a very common name for kings. I have shewn before, that Cusumápuri, Padmáoatí, Gamalá-vati-purí are epithets, and not proper names of places; and applicable, and generally applied, to the place of residence of great kings. Páa-tali-putra is never mentioned in the Puránas, 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-vatí-puri given to it ; every transaction mentioned, as having happened at Padmávatí, 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.

The Magas in Bengal are mentioned by Pliny under the name of Macca-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 Cuttaca 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 Modo-Galica and Modo-Galenca, from the Sanscrit Madhya-Calinga, or middle Calinga: then came the Macco Calingas, or the Magas of Chittigong, from Maga-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 Rajas of Tipera, about the beginning of the stxteenth century, as mentioned by P. Munserrat*. Through the Bur-

[^18]man 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.

## ESSAY III.

Of the Kings of Magadha; their Chronology.
I. 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; Sonth Bakar 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 Cáliyuga; which consists of 432,000 years. This, the Hindus have divided into six unequal postions, or subordinate periods, calked 'Sacas, because they derived 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 $\cdot$ Sacas, with their periods, is thus explained in the Jyotimoddabbharina, an astronomical treatise. Whatever man kills $550,000,000$ Sacas (a mighty tribe of hereties), becomes a Saca; and whoever kills this Sace only, becomes a 'Saca also.

The first was Yud'hish tira, born on the Saba-

Sringa, or mountain with an hilndred peaks, at the extremities of the world; beyond which no body can go ; his period lasted 3044 years. Then came the Era of Vicrama'ditya, the second 'Saca, which lasted only 135 years. He was born at Támrá-odatínagari, or the town abounding with copper. It is called Trambú, or Tambá-vati, in the spoken dialects. It no longer exists, having been overwhelmed with a deluge of sand.- It was near Cambát, thus called from a place of worship, denominated St'hamba-tirt'ha, or with a St'hambe or pillar, called, in the spoken dialects, Camba. From St'hamba, the Greeks made Asta: and from Támra, (Tramba,) they made Trapera, Campra, and Copra, Copper: and, as these two places are contiguous, they said Asta-Trapera, AstaCapra, Campra, \&c. Sometimes they represented them as two distinct cities.

The third 'Saca was Salivahana, born at SaleyaDhára in the Deccan; and his period will last, 18,000 years. The fourth 'Saca will be ViJaya'bir Nandana, who will be born at Su-Chitra-cút'a: his period will last 10,000 years. Then, at Rohita (or Rotas, will be born Nagarjuna; whose period will last 400,000 years. Then will re-appear the antediluvian Bali, who is to be born at Bhrigu-gosha, Barigaza, or Baroach: 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 Rishis, or seven stars of the wain, which are supposed to go through the Zodiac, in a retrograed motion in the space of 2700 years. They are at present in the Lunar mansion of Sčúticà, 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 Sástras, and by holy Munis; 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 Sa'calya muni, their yearly motion is of eight, liptas, or minutes.

In the Varáhi-sanhita, the Vishnu-Purána, and alsoin the Bhágavata, I believe, it is declared, that, at. the birth of Paricshita, the seven Rishis had been in Maghà for four years, or 4905 years ago; and they. were in Purváshará in the time of Nanda.

But in the Brahma-Siddhhanta, it is declared, that they were then in 'Sravan'a, which makes a difference of fifteen Lunar mausions, or 1500 years: so that according to that author, the Cali-yugá began 2405 years ago, or 1600 years B. C. supposing the seven $R i s h i s$ to be now in "Swäticá, in which they are to remain ten years more; but, if they are in Anurádhá, the Cal-yugá began 1400 years B. C. The author of the Garga-Sanhita, according to Bhattotpála. in his commentary, seems to be of that opinion, when he says, that the seven Rishis were in Maghá, in the twilight between the Dwápar and the Caliyuga. In the Lalloctád'hi-vridd'hi, it is declared, that they were then in Abhijit, or in the first of 'Sravana.

The names of the seven Rishis, shining in the wain, are Pulaha, or the star $\alpha$; Cratu, $\beta$; Atri, $\gamma$; Pulastya, ${ }^{\delta}$; Angiras, ${ }^{\imath}$; Vasisht'ha, $\zeta$; and, close to it is a small star, representing Arundatí his wife; the seventh is Marichi, or n. My friends insist that their motion is perceptible; and they shewed them plainly to me in Sicáticá. Of this they wanted to convince me, by drawing a line, from that mansion,
through the stars $\beta$ and $\alpha$ of the great bear. When they are in Maghd then the line passes through this asterism and the stars ${ }^{\delta}$ and $\alpha$. By these means they could see them in every part of the stary heavens. When Nanda was born, they were then in Purvaishádhá, 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. Bailler, we may safely conclude, that no body ever saw them in that propitious moment.

The period of the seven Rishisis 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 Dhruya, 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 Dhruva or immoveablestar. Be this as it may, Dhruva, with his relations, shines in the lesser bear. In the Yantra-satna-cilyam, this constellation is called the fish of Dhruva-brahma'na'd'hica'ra. It consists of thirteen stars: Dhruva is in the mouth, and Uttanapa'da his father in the tail. The mouth is turned towards Bharani, and its revolution is the same.

The wives of the seven Rushis are the Pietades, 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

Arund'hati', the consort of Vasis-ta, on account of her extraordinary holiness and sanctity. Soon after, some scandalous reports prevailed, and the six other Rushis dismissed their consorts, and drove them out of their places, within the Arctic circle. They were intrused with the education of young Ca'ritCE'YA, 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 Cárticeiva) ; 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*; and this is the Arundhatí of the Hindus.

I have not been able to ascertain whose daughters the consorts of the seven Rushis were : neither did the western mythologists agree about it; though they supposed, in general, that they were the daughters of Atras; but, as they never existed, it is a matter of little consequence. Thus we see, that, according to some, Yudhishtír, or Judhishter, lived 3100 B . C. and began his reign immediately after the Pralaya, or flood; like Xisuthrus, or Sisisthrus; whilst, according to others, he lived between the years 1500 and 1570 B. C. like Sesostris.

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

[^19]In the Vishnu, Bralhmánda, and V'ánu Puranas, it is declared, that from the beginning of the Cali-yuga, to Maha-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 Vicrama'ditya: and this is confirmed by an observation of the place of the Solstices, made in the time of Para'sára, and which, according to Mr. Davis, happened 1391 years B. C. or nearly so. Para' $S_{A}^{\prime} \mathrm{RA}$, the father of $V_{\mathrm{Y}^{\prime} A S A}$, 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. Bailly.

In the same Purainas, it is also declared, that, from the Dymasty of the Nandas, to king Pulima'N, there would elapse 836 years. Puloma, or Lomadi, called Poulomien, Oulomien, and Oulomiento, in the annals of China, died in the year 648, according to De Guignes. This passage fiom the Brahmán'da is, obscure, being in a prophetical 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 Pulomá 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 reekoned, 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 Puránás; which, added to 836 , give exactly 975 , the number of years required.

The accuracy of the annals of China, and the carclessness of the Hindu chronologers, are equally known; and, of course, the former must be our guide.

According to the Baudd'hists, the ancient Buddha, or Dharma-Ra'Ja, probably the same with Yudhishtira, manifested himself, or began to reign, 1367 years B. C. as mentioned in the Ayin-acberi. It will appear hereafter, that the Dharma-Ra'Ja, the subordinate Menu of his Calpa, was really the Minos of the Greehs: that Crishna, or Ra'd'ha'móhana, was the same with Rhadamanthus, or Radhamanes. 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 1820 years before the same Era. If the taking of Troy happened I200 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. Yudhishtíra, 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 Dharma-Ra'ja of the Bauddhists lived 120, and Minos 120 also, or 125 years, according to others. Nonnus, in his Dionysiacs, shews that JARA'-SANDHA, literally old SANDHA, Mahá-rája, of India, and whom he well describes, when he says, that Morrheus, the Emperor of India, who was called Sandes, was contemporary with Minos; and his Bacchus is the same with Bhagava'n, in the character of Crishna. Thus we have tivo Eras of the same event, (an inferior, and subordinate Ca taclysm, 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 they made use of the same
computation nearly with the Pauranics, 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 Devcalion. 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 C'ali-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 Yud'hishthira, Crîshna, 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 Vicrama'ditya; and even lower down, for the space of 3044 years : but what was my astonishment, to find in perusing the Puràn'as, 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 Vicramiaditya. 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 36 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 Brahmánda, and the second from the Váyu-purána. In other Puran'as, the number of years, during which each prince reigned, is omitted; but the sum total of the seigns of each dynasty is recorded. From the first year of the Cali-yuga, to the death of Puranjaya, 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 Budn'Ha they reckon also 1002 years, including 23 generations: now Buddha was born 618 B. C. This places the first year of the Cali-yuga 1564 before the Era of Vicramáditya.

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

From the Bha'gavat, From the Vishnu Purána,



It appears, that the Sunacas and Si-sunacas were two braaches of the same family: the first sat on the throne 128 years; but the sum of the reigns, in both dynasties, amounted to 362 . Maha'-nanda and the Sumailyádfeas reigned only 40 years, instead of 100 : and the whole may stand thus corrected, from, the first year of the Cali-yuga, down to 1000 ) the accession of Chandrragupta, or 315
362
40 years B. C. There are 52 generations and
1402 reigns mixed together, 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 Cali-yuga from the Puránas, 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 begimning down to Vicramáditya, to three or four years. This regular decrease is equally inadmissible.

The first king of Magad'a was Jara'-Sand'ha; for that country began to be known under that name in his time, being before denominated Cicata. But Jara'Sand'ha was not the first king of Cícaia; his ancestors had ruled over it for many generations, at least from the time of Vrĭhadratha, or VríhatRatha; from whom the whole dynasty, as far down as Puranjara, or Ripunjaya, is denominated the dynasty of the Bàrhadral'has, in a derivative form. They were descended from Puru, the fifth son of Yaya'ti, the son of Nahusia. We are told in general, that Yaya'ti 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 Crishna, he gave the south, by which they understand the Deccan or Peninsula. The north to Anu, the east to Druhya, and the west to Turvasu: but this division does not agree with what we read in the Harivansa. Besides, as the Bráhmens 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 Turvasu, so far from settling in the west, is declared, in the Harivansa, 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 Pandya, Cérala, Cóla, and Chóla; and this division obtains even to this day. Co'sa lived in the northern parts of the Peninsula, and his descendants are called Coles and Colerers 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, celled Diopethusa, who was also a Calaurian, or native of India, or country bordering upon the Calaurian river*.

In the same manner, we find the posterity of Anv 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 Crishna and the Pa'ndavas came from the west, and their first settle-

[^20]ments were on the banks of the Hydaspes or Vitastá, the country bordering upon which is called, by Prolemy, the country of the Pandovi or Pandavas. Chrǐshna had a small estate near Dwáraca, in Giurjarát, where he generally lived.

The first kings of the Dynasty of the Bárhadrat'has being omitted in the table, are given here from the Harioansa. The famous Uparichara was the sixth in lineal descent from Curu ; and his son was
Vrìhadratháa
Cushiagra
Vrǐshabha
Pushpara'n
Satyasahita
URJA
Sambhava
Jara'-Sandiha.

Jara'-Sand"ha, literally old Sand'ha or Sand'has, was the lord paramount of India or Mahá Rájì, and in the spoken dialects Mà-Raj. This word was pronounced Morieis by the Greelis; for Hesychies says, that Moricis signifies king in India, and in another place, that mai in the language of that country, signified great. Nonnus, in his Dionysiacs*, calls the lord paramount of India, Morrheus, and says that his name was Sandes, with the title of Hercules. Old Sandiha 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 Gayá, in south Bahar. It is called Raja-Griha, or the royal mansion, in the low hills of Rajja-giri, or the royal mountains; though their name I suspect to be derived from Raja-Grìha. The Diomysiaes of Nonnus are really the history of the Maká Bhàrata, on great war, as we shall see hereafter. A certain Dıonysius wrote also a history of the Mahábhárata in

[^21]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 Bassarica. These- two poets had no communication with India; and they compiled their respective works from the records and legendary tales of their own countries. Nonnus was an Egyptian, and a Christian. The Dionysiacs supply deficiencies in the Mahá-Bhárata in Sanscrit ; such as some emigrations from India, which it is highly probable took place in consequence of this bloody war.

Jara'-Sandiha 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 Jara'-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 Chan'dra-gupta to the throne, and more particularly the famous expiation of Снаnacya, after the massacre of the Sumalyas, is a famous cra in the Chronology of the Hindus; and both may be easily ascertained from the Purínas, and also from the historians of Alexander. In the year 328 B. C. that conqueror defeated Ponus; and as he advanced*, the son of the brother of that prince, a petty king in the eastern parts of the Pamjab, fied at his approach, and went to the king of the Gangaride, who was at that time king Nanda of the Puran'as. In the Mudra-richasa, 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

[^22]Vicatpalli, beyond the Vindhyan mountains, called Chandra-dása, who, having been deprived of his kingdom by the Yavanas, or Greets, left his native country, and assuming the garb of a penitent, with the name of Suvidna, 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 re-animated by the soul of some enchanter, who had left his own body in the charge of a trusty 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 Chandraguppa was excluded, being born of a base woman. They agreed, however, t $*$ give him a handsome allowance, which he refused with indignation; and from that moment his eight brothers resolved upon his destruction. ChandragUPTA fled to distant countries; but was at last scemingly 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. Ponus's relation made his escape
to Palibothira, 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 conquerors 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 *. 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 Chainacya. It was Chandragupta and Cha'nacya, 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 siguifies 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 theCumáricí-č handa, it is said, that it was the wicked Cha'nacya who caused the eight royal brothers to be murdered; and it is added, that Chánacya, after his paroxism of revengeful rage was over, was exceedingly troubled in his mind, and so much stung with remorse for his crime, and the effusion of human blood, which took place in consequence of it, that he withdrew to the Sucla-Tirt'ha, a famous place of worship near
the sea on the bank of the Narmadá, and seven coss to the west of Baroche, 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-Tirt'ha; 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-purán'a, 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 Cha'nacya, of the atrocity 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 Carsha'gni. There was present a crow, who, from her friendly disposition, was surnamed MitraCa'ca: she flew immediately to Chánacya, 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 Vol. IX.
nature, that no mode of expiation for it could be found in the ritual. Cha'nacya immediately performed the Carsha'git, 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 Sancaráchárya. It seems that Chandragurta, after he was firmly seated on the imperial throne, accompanied Cránacra to the Suclatirt'ha, in order to get himself purified also.

This happened, according to the Cumúricá-c'handa, 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 epocha 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 'Saca (or Sa'liva'iana) 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 Caliyuga, 3100 save 300 and 10 years being elapsed (or 2790), then will Chánacya go to the Suclatirt'ha."

This is also confirmed in the 63d and last section of the Agni-purana, in which the expiation of $\mathrm{CHA}^{\prime}-$ nacya is placed 312 years before the first year of the reign of 'Saca or 'S'Aliva'hana, 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, whe is a native of that country, informs me, that Chanacya'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 Pargáb. Tradition says, that he built a city in the Decam, 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 Sri-Salam, or Purcutum, on the bank of the Crishna; but nothing of it remains, except the ruins. This accounts for the inhabitants of the Deccun being so well acquainted with the bistory of Chandragupia. The authors of the Mu-drà-Rácshasa, 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 ordier 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 lais son, he made peace with the emperor of India, relinquished his conquests, and renounced every elaim 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 many an Indian princess; besides, Chandragupya, who was H 2
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 Mudrá-Rácshasa.

It appears, that this affinity between Seleuces and Chandragupta took place in the year 302 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 Báli-putras, the most illustrious family that sat afterwards upon the imperial throne of India, was that of the And'rhas. From the Báli-putras, the inhabitants of the Gangetic provinces were denominated Páli-bothras and Páli-potras: in the same manner they were called, after the And'hras, the And'hra Indians; these are the Andre-Indi, which lived along the banks of the Ganges, according to the Peutingerian tables.

The And'rha dynasty lasted 456 years; in the Vayu-puránia, 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 deducted from 648 , there remains 192 , or 190 , for the year of the inauguration of its first king, called Ba'lin, Balihita or Ba'leya, Csheshmaca, Sind'huca, 'Sipraca, Sudraca, and 'Suraca. In the Cumáricá-c’handa, it is declared, that after 3300 years, save 10 , of the Cali-yuga were elapsed, a great king, called 'Sudraca, would reign in Chárchita: the name of his metropolis is, however, omitted in many copies,
'Sundraca, 'Sipraca, or Sind'huca 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 . C. there are 505 years; but during this period the chronological particulars, fromi the Puránas, are not to be easily reconciled with the general outlines which I have traced out. According to the Puránas, there were ten Maurya kings, who ruled 139 years: these were succeeded by the Sunga dynasty, consisting of ten kings also, and Vicramamitra was the eighth of that dynasty.

The next was that of the Canzoas, 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 Canzoas only, to fill up a space of 246 years; which is impossible.

These Cantoas, 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 Andifras, mentioned in the Brahmánda, Vayu, Bhágavata, and Vishnu Purán'as; but out of its place. In some Purán'as, the And'hra 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 Andihra dynasty; and its kings were considered as pure and genuine And'hras. The second dynasty is that of the And'hra-Ja'ticas, or of the family
or tribe of the And'hras, but a spurious branch of it. The third is that of the And'hra-bhiftyas, or servants of the And'hra sovereigns; who, after the death of Pusoma, seized upon the kingdom, and divided it among themselves. Sipraca, or Suracca, was the first of the And'hras'aticas; and the venerable Puloma was the last. In the Puránias no place is assigned, in the chronological lists of the kings of Magad'ha, to the first dynasty of the genuine And'hras : except in one, in which they are placed immediately after Pulonss', who, it is well known, was succeeded by the servants of the ANd'hras, not by the seven genuine And'hras. In the Bhagavata, we read only, that the seven AnD'hras would reign over the land. In the Vishmupuran'a they are not mentioned, unless they be the same with the Cos'alas or Causalas. In the Brahmánida, they are introduced between Pulomá and the And'hra-bhityas in an obscure manner; and there the nine And'hias with the And'hra-ja'ticas are joined together in an immediate order of succession; and it is added, that there were thirty-six of them, nine genuine And'hras, and twenty-sevem 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 And'hrabhrityas succeeded Puloma; ; and the fact being testified by the annals of Chiza, no doubt can remain concerning this circumstance; and the seven or nine genume And'hras must of course be placed before the spurions branch, and immediately after the Canzoa dynasty. Thus we shall have eithev 18 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 Andihra and And'hra-jatica dynasties, were prime ministers, and both put their masters to death, and usurped their throne. That Siruman, the last of the Canwa dynasty, was put to
death by his prime minister, an And'hra, is acknowledged by every historian; and in the Mahíbhráta*, it is declared, that Maha'-carn't, or 'Sudraca, usurped the throne from his master, the king of Magad'ha; 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 'Sri'-car'nna-de'va, in his grant, lately found at Benares, declares that he was of the Haihaya tribe, who lived originally on the banks of the Narmadá, in the district of the western Gauda, or Gaur, in the province of Málava. Their residence was at Chauli-Mahéswara, 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 Bráhmen, called Sandila; who, for several generations, acted as prime ministers to the emperors of the And'hra 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 $R_{A^{\prime} G A}$, or mode, called Málaza, is denominated Gaidi, from the country of Gauda, which was part of the province of Málava.

They afterwards were called And'hras, from the country of And'hra, 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 And'hras in the time of the Canwa dynasty, about

[^23]the begimning of the Christian era. At that time, says Pliny, the And'hra, Andarekings, were very powerful in India. They had no less than thirty fortified cities, with 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 Rájah-Dharma) to whom Jara-sandha gave the city of Malini, with the country round it, now the district of Bhaglepoor, called from him, the country of Carna. Malini, in lexicons, is said to be the same with Champá-nagari, now Champá-nagar in that country. This Carna was the son of Cantí, the wife of Pandeu, 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, Cártavirya, 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 De'va, as in 'Srí-Car'na-De'va, the fortunate and divine Carina, and in 'Sri' De'va-Pala-Deva', whose original name was Deva-Pála, answering exactly to the GreekTheo-philos, in which the word Philos is taken in a passive sense, as well as PA'LA, in Sanscrit, in the word Deo-Pa'za. In the compound 'Srí-Déva-pa'la-De'va, the second De'va, 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 Asiatic Researches, in the family
of Murabagosseyn, whose descendants add the epithet of Déva to their proper names, and the chief of the family is considered as a god. There is then every reason to believe that 'Srí-De'va-Pa'la-De'va claimed equally a divine origin: and as he was originally from the same country Gauida, in Mátwa, 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 Gaidi from the goddess of that name, who was worshipped there: hence it is with propriety called Gaurigosha (Corygaza) by Prolemy. But Gaida, as the name of a country, does not seem to be in the least connected with that of the goddess Gaidí.

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

The Halhaya tribe, to which the And'hra family belongs, claims for their ancestor Haihaya, the son of the godlike Yadu, and the grandson of Nahusha, or Noah: Mahishma'n, the fourth in descent from him, built Mahishmat', now Chauli-mahéswara on the Narmadá. The fourth descendant of the last mentioned was Crǐtavirya, whose son was the famous CA'rtavírya, to whom divine honors are paid to this day.

There is a dynasty of Hamayas, mentioned in the Purán'as, 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 $A n$ -
dhra in the Deccan. A powerful tribe of these Hathayas, according to the Purán'as (as I have been lately informed,) lived in the countries on the banks of the Ganges, in the time of king Sagara; 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 Párasicas, Asvamuc'has or horse-faced, and that of Asoa pati for the title of their kings. This traditionary legend originates probably from their name, Haimaya, implying horses, or horsemen: Pliny mentions a nation in Persia called Hyr.

The Carn'a of the Mahá-Bharata, to whom Jar'a-sand'ha gave the country of Bháglepoor, cannot be the same, who dethroned the king of Magad'ha; for this king was blind and deaf, and the usurper was his prime minister: but Jaríasand'ha was in the full enjoyment of his bodily faculties, when he was put to death by Crǐshna, or rather Bhima. The first is called Carn'a, and the usurper Mah'a-Car'ni. 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 Maha'-Carn'a, and a lion possessing surprising powers, and shooting arrows at him. This lion they call Singa-sactef, (Sinha-'sacti,) and Singa-rajoon (Sinha-RA'ja*). 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 Bho'ja, in his address

[^24]to Raja Munja, considers him and Vicramáditya as the two most powerfu! kings that ever existed. He is, for that reason, called Aditya, and also Ra'ja-Vicrama: and in the Agni-purária Vicramáditya, the son of Gandiha-rupa, is positively declared to be Ca'rnánsya, or descended from Ra'já-Caun'a. This is, of course, the Vicramaditya 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 Vicramáditya, but this; and some missionaries, who have fixed the death of Vicrama and the beginning of his cra, in the year 250, must have been misled by legends wholly relating to this Vicrama'ditya.

He is mentioned in the Vrihat-cat'há, under the of name Sudraca, or 'Suraca, among the several worthies, dignified with the title of Vicramaditya. In another section he is introduced as the prime minister of an emperor of Pátali-putra, or Patna, who was labouring under various infirmities; when he was advised, by a mischievous Bráhmen, to avail himself of these circumstances, and usurp the throne; which he did, aecording to the Puránás and the Mahábhárata.

In the Bhágavata, he is called Balihica, or rather Balifita: in the Vishmu-puráná. 'Sipraca; in the Brahmánda, Ch'hesmaca; in the Váyupuráná, Sind'huca: he was the first of the And'hra-ja'tiyas. In the Cumárica c'handa he is called 'Su'draca, and in some copies 'Su'raca; and the first year of his reign was the 5291 of the Cali-yuga. In the MaháBhárata, he is called Maha'-Carn't, king of kings; and the name of his sovereign, whom he de-
throned, but did not put to death, was Ambu-vícha. In his grant, found lately at Benares, he called himself 'Srí-Carn'n'a-De'va, king of Tri-Calinga, 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 engraven 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 $\mathrm{Pa}^{\prime} \mathrm{Rv}$ atí, with four arms, sitting, 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 Pa'rvatí and the bull is written 'Srí-Carn'nj-Déva. 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 Purán'as, he reigned twenty-three years, and was succeeded by his brother Crishna, who reigned eighteen; and his son was 'Srí-Sat-Carn't, or 'Srí-'Sat-Carn'a, who reigned 56 years. This surely could not be his name, as it signifies the prosperous seven Carn'is.

The ancestors of 'Srí-Carn'n'a-De'va, mentioned in the grant, were, first, his father Ga'nge'vaDéva, with the title of Vijaya-Cantaca: he died in a loathsome dungeon. He was the son of Co-calla-Déva, whose father was Lacshmana-Raja'Déva. Maha'-Cafint, according to tradition, resided at a place called Jangirah, near Sultangunj, and about half way between Mongír and Bháglepoor. There some remains were shewn to me of his palace,
on the site of which an indigo factory now stands. He is called there 'Suí-Carne'swara, or simply Carnééswara, perfectly answering to Srí-CarnaDe'va. The opposite rocks in the Ganges were known by the name of Carnagiri, or the hill of Carna'. There liyed the old king of Magad'ha, 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 'Smí-Carna-Déva 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-vícha, or he who resides in the middle of waters.

There was also another king of Magadha, called Carn'a with the surname of Daha'riya; because he generally resided at a place called Dahara, between Mongir and Surujgwh; and inserted in Major Renneli's atlas. This Carn'a is mentioned in an Epic Poem, entitled the wars of Prït'hu-RA'JA, in the spoken dialects ; and part of which is in my possession. Prǐthu-Ra'sa waged war against Sultan Gori, in the year 1192 of the Christian era. The king of Magad'ha is called there, Carn'a Daha'ra, and he accompanied the Emperor Jaya-Chandra, in his expedition against Ceylon, which he undertook, under pretence of a pilgrimage to worship the famous statue of Ca'rticéya-Swa'mi. At the head of a numerous army, he marched from Yógini-pura, or Dilli, for thus the last is spelled throughout the poem. The general rendezvous of the vassal kings was to be at Govál-chanida, said to be Gowel-ghur, near Ellichpoor. He then sent a message to Víra-bhadra, king of Singala, (or Ceylon,) to prepare every thing for his reception; being a vassal of the empire. Víra-bhadra submitted with good grace : and Jaya-Chandra went to Ceylon, worshipped Cárti-

CE'YA-SWAMI, and visited the famous fort of San-cara-griha, near the sea shore, and saw there the statues of $R_{A^{\prime}}$ ma and $R_{A}{ }^{\prime} v a n a$. I am also informed, that this Carn'a had a daughter, who lived in one of the royal seats near Colgong; and was seduced by the poet Chauda, whose works are still extant. I have mentioned before, that the Andhra princes, who ruled on the banks of the Ganges, are divided into three classes, the dynasty of the genuine And'hras, consisting of nine kings: then the And hra-játiyas, or of the family of the And'hras: and lastly the And'hra-bhrittyas, or servants of the And'hra princes, who seized upon the government. It is not an easy matter to ascertain, whether the $\Lambda$ NDimra dynasty is to be placed before, or after the Andhra-jutiyas. I have placed it before, first to fill up a chasm in the Iist of the emperors of India: in the second place, it is universally agreed, that the And'Hra-bHrĭtyas usurped the throne, immediately after the death of Puloma, the last of the And'hra-játiyas: and this last circumstance is corroborated by the testinony of Chinese historians, according to Mk. Deguignes. Besides, in the Brahmánda, the Andhras and Andinra-ja'tíyas are considered but as one dynasty, consisting of thirty-six kings, from which, subtracing the nine Andhras, remain twenty-seven kings, which is the exact number of kings in the dynasty of the And'hra-Jatisas, resulting from four lists compared together.

Nothing is related of the kings of this dynasty, except of the last, called Puliman, Puloma, Lomádi, and Puloma'rchif, or Pueom'a the pious Rǐshi. He was a great conqueror, and put an end to his life in the holy stream of the Ganges.

In an inscription found at Budd'ha-gáyá, and inserted in the first Volume of the Asiatic Researches,
mention is made of three kings of Magad'ha, emperors of India. The first called Yajnya-varma, 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 brillant career, by the voluntary deed of death, near the uprising ocean; probably at old Ságar behind Fultúa near Moorgatcha, in Major Rennelle's atlas. His son was also a pious prince, called Ananta-Varmá. Yajnya-varmá appears to be the same with Yajn ya'sri in the accomparying lists, and the great grand-father of Puloma'. His name Yajnyas'ri, as mentioned by the Pauránics, implies that he was fortunate, through the constant performance of the Yajnya. 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 Yajnyasmi', in the Puranas, where Ananta-Varmá is called Chandra'sít, because, being a religious prince, he was probably addicted to the worship of the moon. The Chinese historians mention an emperor of India, called Yeugnat, 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. Puliman, Pulomá, or Loma' is called Poulomuen, Houlomien, and Houlomiento, by the Chinese. According to Mr. Deguigafs, he conquered all India, in the year 621 , and died in 648 . From him India was called Poulomuen-Koué, or the country of Puliman by the Chinese: and the And'hra princes were so famous, that the inhabitants of the Gangetic
provinces were called, in the west, the And'hra Hindus, or André Indi, according to the Peutingerian tables, in which they are placed along the banks of the Ganges. After the death of Pulima'n, the whole country was thrown into confusion, according to Deguignes. Olonachun, one of the chief officers, (perhaps Calyana'-chandra,) seized upon the Gangetic provinces, and hearing that the embassadors, from Taitsong, Emperor of China, to king Puliman, were coming with Hiuentse, 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 Pulimain 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 Mahárájás, 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 Magad'ha, (or south Bahar;) Maithila (now Tirhoot;) Sáceta (Oude,) and Benares : the kings of Carna-des'a formerly Anga (Carna-Dahativa, 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 Tanmouielicou, 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 15 th century. It was then, that the town of Gaur (or Gaida) became the first city of that part of India: and this certainly accelerated the fall of Páli-putra; if it
existed then : and two rival cities, so near, or rather close to each other, could not exist together; and the vicinity of Gauida probably induced the kings of Magad'ha 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 Srí-Déva-Pá la-Déva boasts of his having humbled the Hun'as, 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 Tusháras or Parthians. These are the Morunde of Ptolemi, who were masters of the whole country to the north of the Ganges, from Delhi to Gaur in Bengal. They are declared in the Puránias to be Mléclihas, impure tribes, and, of course, they were foreigners. The same are called Maryanthes by Oppian in his Cynogetics *, 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 elephauts 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 Jesselmere; 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 Carn'as, in despite of the Bráhmanical tribes, are still famous all over India; and their memory held in the greatest veneration, and their fame

[^25]Tol. IX.
reached even as far as the Peninsula of Malacca, where they have still poems mentioning Carn'A, the MaháRájá, or emperor of India, according to Mr. MarsDEN *. These poems, if procurable, might possibly throw some light on the history of those kings. Among the And'hra priaces 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 Bodhe-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 Buddнa. It is foretold in the Cumáricá-c'han'da, that after the year 3600 of the Cali-yuga, answering to the year 500 of our era, a BuDD'Ha would be king of Magad'ha, of the house of Hema, and a Chandra-vansi; and that after reigning 64 years, he would ascend into heaven. This Bod'hi-satwa, or subaltern incarnation of BudD'Ha, or, in other words, Budd'Ha himself, the D'harma-ra'Ja, went to China, in the year 515 of our cra, where he is called D'harma: at Siam, and in the Peninsula, he is called Pouti-sat, and Potisatu.

We may consider Pulimín as the last king of Magad'ha at the same time emperor of India. After him appeared a powerful king called Visvasphatica, Visvasphurji, and Visva-sphan't. His real name was Puranjaya. He expelled the Cshettris or the barons, as being too troublesome; and exalted the lowest classes, such as the Caivarttas, boatmen and fishermen, the Pátics, the Pulindas, \&cc. 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 Nágás, or Nácás. These were an obscure tribe,

[^26]called for that reason Gupta-oánsas ; there were nine families of them, who ruled independent of each other, over various districts in Anu-Gangam; such as Padmávatí (Patna); Cantipurí (now Cotwall, nine coss to the north if Grealior); Magad'ha (or Bahar); Prayagá (or Allahabad); Sácéta (or Oude); and Benares. There is still a powerful tribe of the Nácás on the banks of the Jumná and the Betriá-nadi. The Causalas or Pund'hracas ruled in Tamralipta, near the sea-shore, according to the Vishnu-puranú. In other Puran'as, we read the Causalas, or And'hras, which is inadmissible. The kings of Maithila (or Tirhut) are often mentioned; but the kings of Gaur (or Bengal) are never noticed, unless they be the Bángavas, once mentioned in the Brahmánda. The kings of Bengal are not mentioned in the book of the wars of Pritimwira'ja in the twelfth centary; whilst those of Oude, Tirhut, Bahar, Napal are noticed, as well as Bhos'a king of Ud'ya-desá, now Orissa.

## A COMPARATIVE TABLE

of the

## KINGS OF THE ANDHRA DYNASTY,

fROM THE


A TABLE of the KINGS of MAGAD'HA, EMPERORS of INDIA.


## 117

## ESSAY IV.

## VICRAMA'DITYA and SALIVAHA'NA:

THEIR RESPECTIVE ERAS,

With an Account of the

## BALA-RAYAS OR BALHAR EMPERORS.

THE two periods of Vicramáditya and 'Sa'li-va'HANA 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-Divátrins'ati, and the Vetála-pancha-vins'ati, which have been translated from the Sanscrit into all the dialects of India; and the two last tracts are sections of the Vrühat-cat'há. 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 Ra'ja' Bho'ja. Somésuppose that'Sa'liva'hana was one of them, and that the fourth was the son of Bro'ja; whilst others insist that this last was either Jaya-chandra, or Prírhwi'-Ra'ts, who, fell in the great war against the Mahábhátadicas, or Musulmans, in the year 1199. Every Vicramáditya

## 118

is made to wage war against an antagonist called 'Sa'liva'hana, Sa'laba'n, and often denominated Nrǐsinha, Na'géndra, \&c. except one, whose opponent's name was Maha-bнлt, and that of his follotwers Mahábhátadicas, that is to say MUHagtmed and the Muhammedans.

Vicramáditya made a desperate tapasya, in order to obtain power and a long life from CálíDE'VI', and as she 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 sons of the great Tacshaca, carpenter or artist; would seprive him both of his kingdom and of his life. Such are thee words of the Vicrama-charitra: and in the Cumine-riola-chanda it is said, that this would happen in the year of the Cali-yuga 9101; answering to the first of st the Christion era. Thus, Vierama'dmed reigned for 1000 years nearly unmolested, in the enjoyment of every rational pleasure, and never troubling himself about his latter end; till, recollectifg the prophecies about this wonderful child, and athat the time for their being fulfilled was near at hand, he grew, very uneasy, and sent people all over the work, 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 divinie child, who was then five years of age.

The history of these nine worthies, but more particularly when considered as a single madividual, is a most crude and undigested mass of heterogencous legends, I taken from the apoctyphal 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 Sássánian 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 Ujjayini. One of these Vicramas was really a Sassanian 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 Sanscrit, Sinhásana, or the seat supported by lions. We read in the oétala-pancha-vinsati, that it was through the assistance of the great Vétala, or Devil, that tivo Vicramádityas obtained the empire of the world, a long life, with unlimited sway. They performed the pújá 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 Thamuráthnameh* ${ }^{*}$ that the div. Argenk had likewise applied to the devil, to become the Solomon or Vicrama of his age. Zohac 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.

[^27]But let us return to the extract from the Vicramacharitra, by Major Mackenzie. Then came Balarǐishi, Vicramárca, Bali and Bhartrǐhari, four brothers, from four mothers, of the four different classes, and sons of a holy Bráhmen of Benares. The last, or Bhartryhari, 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-dwár. He was succeeded by Vicramárca, who made a sacrifice in honor of the goddess CA'LI', 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 Ujjayiní 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 Rambhí' and Urvas'í dancing, and there was presented with the famous Sinhasana, or seat adorned with lions.

He chastised the Ve'ta'la-de'va, or the king of the devils, made bim his slave, who then related to him twenty-five curious stories, to be found in the T'étala-pancha-vin'sati. 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 Tacshaca, or the Carpenter, in the original,) while she was in her cradle. They
informed him also, that this child, named $\mathrm{Sa}^{\prime} \mathrm{LA}-$ va'hana, had attained the age of five years; and that his grandfather had made numberless clay figures of soldiers to amuse him.

Vicramárca 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 VicraMA'rCA and his army, and defeated him. Sa'la$\mathrm{va}^{\prime}$ hana cut off his head ${ }_{4}$ 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 Málava; and the same voice ordered the Sinhásana, or the imperial throne, to be buried in a secret place. 'Sa'la-va'hana, 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 the chronological list, Vicramárca 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 Musulmans penetrated into the more inland parts of India; probably under Manmood, about the year 1000 of our era.

The year 5044 of the Cali-yug a is looked upon by many as the year of Vicrama'rca'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 Tadlherát-Assalatin, as cited by Bernouldf, to have lived 1100 years, before he re-appeared and reigned at Dilli.

This Vicramárca, called also Vicrama-séena and Vicrama-sinh, is supposed to be the most ancient; yet his brother Bhartrihart (also named 'Sucáditya or Sucara'ja), 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, $V_{I-}$ crama-s'ena, to whom, and his daughter-in-law PrabH'Atí, the Parrot relates these amusing slories. 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 rearly to cut off his own head, and throw it at the feet of the goddess Ca'tíl, who interposes and grants his boon. Hence it is said, that the first time he cut off his own head, Ca'sí 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 Vétála, replaced it upon his shoulders. This he did ten different times, when the Vétála, or the devil, informed him that this could be done ten times only, and no more, as in the case of RA'VANA, as ceery body linows.

We read, that there was a king of Pátuliputrapura, called Vicrama-tunga, who was like a lion, sinha: hence he is called Vicrama-sinha through the whole legend. He happened to be in the holy city
of Pratishtária, when fifty of his relations (the heads of whom were Maha'bha'ta, and his four confidential associates, Maha'-víra-ba'hu, or Maha' ${ }^{\prime}$ báhe $^{\prime}$, Su-ba'hu, Su-bha'ta, and Pretá pa'ditya, all mahabalas, strong and valiant men), surrounded him with a numerous army of Mahábhatadicas, or Muhammedans. He effected his escape with much difficulty, and fled to Ujjayint, where he concealed himself in the bouse of a rich merchant, who with his wealth enabled him to raise another army, when he attacked the Mahábhatádicas, and gained a complete victory. In the mean time, his wife 'Sa'sile'c'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 Patali-putra-pura, or Patna. It is said, in the third story of the Vetala-pancha-oins'ati, that Maha'-bhatá, or Maha-ráhu, was from Anangapura, in Ananga-de'sa, or country of Ananga; the same with Ca'madera, which Pandits suppose to be toward the west. Muhamareed is said to be the grandson of a king of India: hence he is called a relation of Vicramajitya.

In the seventh section of the Vrihat-cat'há, we read, that there was a king of Patali-putra-pura, called Vicramáditya, who, hearing of the growing power of Nrisinha, king of the consecrated city, or Pratishtán'a, called to his assistance the Gaja-pati, (lord of the elephants, or king of Tibet), and the $A$ svaprati (liord of horses or horsemen, or the king of Persia). The confederates took the field; but were defeated by Nrisinha-nripa or Sa'diva'hana, with an incredible slaughter. Vicramaditya fled with the utmost precipitation to Patulh-putra; but meditating vengeance, he disguised himself like a carpati, or man who carries all over India the holy water of the Ganges, and went to Pratish'tán'a. There he was
kindly received by a rich merchant, in whose house he remained a long time. King Nrisinha, or Sídiva'hana, happening accidentally to call at the merchant's house, they recognised each other; and Nrisinha, admiring his comely appearance, and also his courage and confidence, acknowledged himself overcome by him; when Vicramaditya advanced, and they embraced each other most cordially. Nrisinha carried him to his palace, where, having entertained him in a suitable manner, they parted in peace, and Vicrama returned to Pátali-putra-pura, having seemingly settled every thing concerning their respective eras, at least it is so supposed.

In the tenth section of the Vrihat-cat'ha, we read that Vicrama-ces'art, was prime minister to Mriga'ncadatta, king of Pátali-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 Brama-st'hala, he saw a Bráhmen, sitting under a tree, near a well. Vicrama-cés'ari approached the holy man, who forbade him to come near, as he had just been bitten by a venemous snake: but Vicrama, who was well acquainted with the medical art, soon cured him. The Bráhmen, willing to shew his gratitude, asked him why he did not aspire to power and dominion. Vicrama-ce's'ari seemed willing enough, and asked him how this could be effected. The priest replied, perform the pújá in honour of the great Vétála, or the devil, and you will obtain from him whatever you wish; and you will become like Vi-sama-saila, with the title of Tri-Vicrama, who had the sidd'his, or power or working miracles.

At Pratishitaná, says the Bráhmen, on the banks
of the Godácerí, reigned Tri-Vicrama-sena, the the son of Vicrama-s'ena. He was thus called, because he possessed acrama, pracrama, and vicrama, three synonymous words, implying energy in a great degree. A Bráhmen used to come very often, and presented him every time with a flower, in which was concealed a jewel of great value. The king respectfully 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 Bráhmen 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 Bráhmen 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 placed 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 Bráhmen 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-s'ena being satisfied with the truth of this information, put the Bráhmen to death; and Mahádéva appeared to him, saying, thou wert
before Vicramáditya, a portion of my own essence. I have now generated thee in the character of TriVicrama to destroy the wicked; and ultimately thou wilt be Vicramáditya 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 Millenniums of Vicramáditya. This legend is a little obscure, and the compiler seems to have jumbled together the legends of Vicrama'ditya and Sa'liva'mana; though of the latter no mention, by name at least, be made.

As Vi-sama-s'lla was at first king of Pratisht'ínú, he was, of course, the same with 'Sa'liva'han'a; and the first part of the legend has an obvious reference to him in that character. Vicrama-cesa'm appears to be the Srí-Carná-deva-Ra'Ja-Vicrama, with the title of A'ditya, who dethroned his sovereign, taking advantage of his infirmities; and this Vicrama-ces'ari, in the third story of the Vetála-panchavinsati is declared to be king of Pá-tali-putra-bhú-mandàlam, or country and region of Pátalí-putra, as every body knows: and his wife's name was Chandra-prabhá-magadhí, being a native of Magadha.

It is said, in some legends *, that three male children were born the same day : one, the son of a Bráhmen, the second, a Cshettri, and, the third, a Vaisya: some add a fourth of the Sudra 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 Bráhmen, hearing of this, easily circumvented the Vais'ya, who was a Tail, or oilman, with whose body he wanted afterwards to perform a most abominable sacrifice to Vétála, or the

[^28] devil, in order to destroy Vicramáditya. Mahádeva became incarnated in the person of Tri-VicraMA, at Ujjayini, or rather Pratisht' an'a, on the following occasion. The gods, that is to say, the Bráhmens and Hindus, being rexed by the Mlécl'has, or foreign and impure tribes, went in a body to Cailása, to Maha'de'va, to whom they said, you and Vishnu have destroyed the Asuras, or Daityas, but these are born again on earth as Mléchihas. They vex the Viprus, or Bráhmens, 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, Tripura'ri, or Maha'-deva, was incarnate, in the house of Sura-Mahéndráditya-Jagatsaya, at Ujjayiní, 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 Vicramáditya 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 mill, or White sea. His general, Vicrama-s'acti, conquered Dacshin'a-pat'ha, (or the Deckin,) Mad'hya-desa, (or the inland parts of India,) Cásmir and Saurashtra, (or Soret,) and the countries to the east of the Ganges. He forced Vira-se'na-Sinha'tes wara, or the king of Sinhula, or Ceylon, to sue for peace, and to give him his daughter, and Cut́aca, (or Cuttaca,) was obliged, at last, to submit. He extirpated several tribes of Mlectikas, and others surrendered at discretion. He married, at Ujjayiní, three wives, Gunavatí, Chandra'vatí, and Madana-sunda'rí: wishing to marry
a fourth, he saw, in the house of Visivacarma, a beautiful damsel, daughter of Calinga-s'eni, king of Stambhasta, (now Cambát, or Cambay, ) in Calinget des'a. He sent a trusty man to demand her of her father, who refused his consent: but Vicrama'ditya sent one of his attending spirits, who soon obliged him to comply.

This is, it seems, the Vicramáditya who obtained a famous boon from Indra, in favour of his favourite country Málaoa, that it should never be visited by drought. In his time there had been no rain for twelve years, owing to San'f, (or Saturn,) passing into the house of 'Sucra, (or Venus,) in Vrisha, (or Taurus,) through the S'acata-bhéda, (or section of the wain,) in Robhiní, (or the stars near Aldebaran). In the time of Da'sarat'ha, Saturn, the offspring of the Sun, attempting, to go through this path, was prevented by Dasarat'ma, and hurled down into a country which he set on fire, and it was, from that circumstance, called Barbara.

In the Sinhásana-dwátrinsáti, the twenty-fourth statue is introduced, giving to king Bhója an account of Vicrama, and of 'Sa'liva'han'a. There was, in Purandarpura, a rich merchant, who, before he died, gave to every 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 afterwards to Pratisht'an'a, 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 Bráhmens, who had a sister, who lived with them in a state of widowhood, her husband having died whilst she was yet very
young. She conceived by a Naga-cumára, (or Tacshaca;) and the brothers ashamed of this seeming disordenly behaviour of their sister, left the country. The unfortunate young widow, thus deserted, found an asylum in the humble cottage of a pot-maker, where she was delivered of a male child, whom she? called 'Sa'liva'hana. 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 amrït 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. Vicramáditya, 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. Vicramáditya, 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 Nagacumára, or son of the great serpent, stupified Vicrama's army ; who, finding his soldiers asleep, implored the assistance of the serpent VAs'ucr, who gave him some amrit, with which he revived his troops; and 'Sa'liva'hana, 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 Vicrama'ditya's unbounded generosity.

Vol. IX.

The next Vicrama'ditya, and whose history is best known all over India, was the son of Garddabha rupa, or he with the countenance of an ass; and an account of him is given in the Vicrama-upac'hyána, or first section of the Sinhásana-dwátrinsati.

The next Vicramáditya was the famous king Bhója, who recovered the Sinhásana, and going to the $W$ hite island, dived into the infernal regions, where he saw the apartments of Crishna, or Vishnu ; and close to them those of BaLI, who received him kindly, and bestowed upon him the title of Vicrama'ditya; and his son, called Jaya'nanda, was stiled also Vicramáditya. According to others, Jaya'nanda was only either the adopted son, or the son-in-law of Raja-Bhósa, having married his daughter Bhánu-matí.

The principal feature of the history of these Vr cramadityas, as I observed before, at whatever period they lived, is their quarrels with a certain king, called Sa'liva'hana, with the title of Nrisinha, Na'ga-cumára, Na'géndra, \&cc. except one, who is introduced as contemporary with Muhammed, and waging war against him, and his followers, the Mahábhatúdicas. Even in the time of Jaya chañDrA, the last emperor of India, we find, in Persian records, a 'Sa'lba'han, king of Dill': and in the district of Budhaon, in that province, there is a small town, the capital of a Pergannah of the same name, called Cote-'Salbáhan, or the fort of 'SA'LBA'HAN, 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 Jast sections, or rather supplements to the Agni and Bhavishya-puran'as, the list of the kings of Mákwá, in
the Ayin-Acberi, the Vansíoáli, or Rajauadli, written by Ra'sa' Raghuna'tha, of the Cach'hroa tribe, at the command of the emperor Aurengzebe; and, lastly, a list of the Bala-Ráyas, or Balhara emperors, and of the sovereigns of Malwá. The last section, or rather supplement or appendix to the Agni-purania, is the best chronological list that has come to my knowledge. It is seldom found annexed to that Puraria; 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-purán'a, 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 Purán'a, and the owner most kindly made me a present of the last leaf, which contains both the end of that Purán'a, 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-purán'a. The numbers do not correspond now, though it be acknowledged, that the division of the Purán'as, 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-purán'a, it is obvious that it never made part of that Purán'a, at least in its present state: but, as it treats of futurity (Bhaoishya), 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 Jyótirvidábharána. It is supposed by some, that it is a short extract from the second part of that Purán'a, which either no longer exists, 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 K 2
an account of the emperors of the west in India, of whom little or no notice is taken in the Purán'as. The chief object of the compilers seems to be to establish the chronology of the western parts of Indir, since the expiation of Chánacya, down to the death of Pithaurá, 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-Acberi, 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 Vansívali, or the genealogies; but more commonly called Rájavali, or reigns and successions of kings. It was written in the year 1659, by Ra'ja' Raghuna'tha, of the Cach'hwa tribe, at the command of Aurengzebe. 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 Khulásetul Tuwáric, and the Tadkerátussalatín. The latter treatise is a most perfect specimen of the manner of writing history in Indita; for, excepting Raghu$\mathrm{NA}^{\prime} \mathrm{TH}$ '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 any where 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 disingemuity is but too obvious.

This is, however, the case with the sections on futurity in the Bhágavat, Vayu, Vishmu and Brahmándapuran'as ; which, with the above lists, constitute the whole stock of historical knowledge among the Hindus; and the whole might be comprised in a few quarto pages of print. These I have collected togeK 3
ther, 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-Acberi, in the state they were in at that time. I have some copies, in which their chronology is brought down to the reign of Aurengzebe: and, lastly, some, in which the arrival of the English is foretold, under the name of Tamra-varria, foreigners, the offspring of Maya, the engineer of the giants, and the son of Twashta, Tamra-oarn'a literally signifies copper-coloured, but is interpreted Arúna-oarn'a, or of the colour of the morning dawn; and, in lexicons, the Greeks, or Yavanas, are said to be Támra-varria. In Raghuna't'h's list, it is remarkable, that no obvious notice is taken, either of the elder Vicrama'ditya, or of 'Sa'liva'hana; they are however concealed under the names of Aditya, ridiculously written Adhescht by Tieffenthaler, and under that of D'hananjaya, which last is meant for 'Sa'liva'hana. 'Aditya is obviously meant here for Vicrama; in some copies he is called HAra-bha'ga, 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 Sacés'wara; and whatever man kills a Sacéswara only, obtains that exalted rank, as did 'Sa'liva'hana.

Dhananjaya, or Dhanid'hara, as he is called also, is supposed by Abul Fazil, to have been the grandfather of 'Sa'liva'hana *: but, as there are se-

[^29]veral kings and legislators called Vicrama; in the same manner we find also several Sa'liva'hanas. This grandson of Dhananjaya is made contemporary with another Vicramáditya, who is supposed to have begun his reign A. D. 191; but, according to others, either in the year 184 or 200 . In $\mathrm{RA}^{-}$ ghuna'tin's lists, current in the western parts of India, which have appeared in print, instead of 'SA'LIva'hana, we find Shmidda-pa'la, 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 Vicrama'ditya, we read 'Suraca, or 'Sudraca, a famous emperor of India, mentioned in the Puráras, and of whom it is said, in the Cumárica-c'han'da, that he would ascend the imperial throne, after 3290 years of the Call-yuga were elapsed, that is to say, in the year of our Lord 191, and that he would reign in the city of Charchitá, 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 A'ditya: but in the eastern lists no mention is made of Samudra-pála. Tieffenthaler takes notice of him, and Bernoulli has given us the whole legend, such as it is in the MSS. copies.

When Vicramáditya was ninety years of age, then came Samudra-pa'la, 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 miraćles, 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-pála 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. Vicrama'ditya did so, and the young man revived immediately, to the great astonishment of the multitude. In the mean time, Samudra-pa'la 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 'Sa'liva'hana, in the Delihin; for, in the northern parts of India, they reckon only 135 years. This new 'SA'Livahana, 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 Cumá-ricá-c'handa, ascended the Imperial throne in the year of Christ 191: but in Raghuna't'h's list, this event took place in the year $£ 91$. That there is an error of 100 years is obvious, on the authority of the above section of the Scanda-jurán'a, 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 4216; 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 Maha'bali's accession to the throne, 355 B. C. down to the year 1016 of
our era. The reason why these 100 years, and a few more in another place, were introduced, is that the correctors of this list confounded the final overthrow of the Hindu empire, in the year 1192, by Sahebuddeen, with the mortal wounds given to it by Sebecteghin, and his son Mahmud, in the beginning of the eleventh century. In all the copies which I have seen, of Raghu nath's' list, an obvious notice is taken of the famous emperor Bиósa: yet the learned insist that he is concealed there, under the epithets of Deva-Dha'ra'sinha, as he is called in some lists, and 'Saila-Dhara-sinha in others: but in many copies these names are written erroneously Danio-Dhara-s'ena, and Jala-dhara-sena. In the Bhója-prabandha the epithet Déva is always prefixed to his name, thus Déva-Bhósa; and in the room of these various surnames, we find in some copies Diva'yana-sinha. As Bhója was king of Dhárá (now Dhár) he might certainly be denominated Dha'ra'sinha. This famous city is called also Sáila dháráa, and Bhója is called 'Sa'ila'ditya, or Vicramaditya, who resided at 'Sàila-dhárá, in the Satrujaya-mahatmya; and in the same manner, 'SA'inva'hana is denominated Pattan-sinha or 'Se'na, from the town of Pratisthána (or Pattan) where he is said to have residerl. If so, the new modellers of these lists have introduced many obscure, or rather fictitious names, in order to fill up the space, between that emperor and the downfal of the empire in 1192 , by Sahebuddeen, which they have confounded with the catastrophe under Mahmud-ben-Sebecteghin. In various lists, which I have seen, Sebecteghin's name is written Sebectekin, Sanectekin, Nectekin, \&e.

As Bhósa 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 lists, the principal eras are, the accession of Maha'-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 Chanacya, 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 'Sa'livahana and the eldest Vicramáditya: this the compilers and revisers have wrapt up in such darkness, and I believe designedly, that it is almost impossible to recognise these two famous kings. In some, 'Sa'liva'hana is called Pattan-s'inha; in others Dhananjaya, Dhanadhara, \&c. 'Saca, Sacti-s'inha; and in the Vrïhat-cathá, Sama-síla, and Vi-sama-síla, and lastly $\mathrm{Ha}_{\mathrm{i}} \mathrm{la}$ and Sa'la, Háli and Sa'li, Nrìsinha and Nara vahana. Vicbamadítya is sometimes called Aditya simply; in other places Vicrama, Vícramamitra, Vicrama-tunga, Vi-crama-S'inha, Vicrama-séna, Vicrama-cesári, Vicramárca, \&c. whilst he is sometimes left out entirely; which is immaterial, as they say, when SA'liva'hana, his antagonist, is mentioned.

The third epoch is that of king Suraca, called
also Aditya, and Raja-Vicrama, who began his reign in the year 191.

The fourth era is that of Vicramiaditya the som of Gandharupa, whose reign began in the year 441.

The fifth is the appearance of Maha'-bhat 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 $\mathrm{Pr}-$ thaura in 1192, 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 Bhavishyapuránas, and also in the Ayin-Acberi. In the Bhapishya, 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 purín'a, 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 seemingly implied by his name, who made himself independant, and resided in the town of D'hára. He lived 190 years; that is to say, his collateral dynasty lasted so many years, and this dynasty was very properly omitted in the Ayin-Acberi. Then comes Suc'h-s'ena, or Sumuc'h-s'ena, with another king called C'ha'dga or C'harga; and these resided at Chitra-cút'a in Bundelc'hand, as asserted in that sec-
tion or appendix. Sumuciha-sena is called Kenecksein in the Ayin-Acberi; and in that treatise, Chitracúta, 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, Mahéndra-pála and Kurrum-chund, in the AyinAcberi, should be written in this manner, RA'machandra, who did not reign : his son was Chat-tra-pa'la, who was elected emperor of India after the death of Jaya-nanda. His son and successor was Ma'ha-chandra-pa'la; but I conceive that the true name of the latter was Mahe'ndrapála.

From Cha'nacya's' expiation to the first year of Vicramáditya, the son of Gandha-rupa, 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 Vicramáditya, the son of Gand-ha-repa, or Harsha-mégha, which last is a ridiculous epithet for an ass, to the first of Bнósa. 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 Marabali, or Nanda, who ascended the throne of India 355 years before Christ. From his accession there elapsed 299 years, according to Raghuna'tr's list, to the death of Vicramaditya, which happened 56 years B. C. Then appears Dhananjaya, who put to death'Aditya: these are 'Sa'livaihana and Vicrama'ditya: the times coincide, and the name of one of them. Dhananjaya is also the name of Absuna in the Mahá-bhárat, 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 'Sa'liva'haya in the Cumáricá-c'han'da, and
the Agnii-purín'a. This second Dhananjaya, called also Dhanandhara, is reckoned as an Utpata, or prodigy; and some account of him is given in the Ayin-Acberi*, and also in traditionary legends. He sprang suddenly from the middle of a temple at Prat-shtảna in the Dekhin, in a human form, and with a divine countenance, holding a bright sword. He attacked A'ditya, 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 Vicramáditya, under the name of Sacadwishi, the foe of Saca or 'Sa'liva'hana; and it is not improbable that the prime minister, in the inscription on a pillar at Buddaul, is compared to 'Sa'liva'hana, under the name of Dhanan-jayat.

There were undoubtedly many Vicrama'dityasg but which of them instituted the era denominated after lim, is by no means obvious : for there is hardly any instance, I believe, of any sovereign or legislator 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 Vansáváli, and in general all those who have attempted to new model his list, say, that the era of Vicramaditya was instituted by his brother Bhartrìhari, or Sucaditya, who is called Sacwanta on that account. He reigned fourteen years; and after his death, Vicramáditya took it up, made some corrections, and had it called after his own name. This circumstance is noticed by

[^30]Bernouillt, 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 Vicrama'ditya in its corrected, and the same in its original state. This 'Suca'ditya is called also Vicrama'ditya 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 Bhartrìhari, in the collection of tales attributed to him, alludes to another Vicramáditya, 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 'Satrujaya-mahatmya, we read, that after 466 years of the era are elapsed, then would appear the great and famous Vicramáditya; and then, 477 after him, 'Saila'ditya, or Bhóa, would reign. In the Ayin-Acberi, the various dates, from the era of VIcramáditya, are to be reckoned from his accession to the throne, in the middle ages of the Christian era.

The third epoch in my list, and in most of the lists in the eastern parts of India, is that of 'Suraca, who was succeeded by his brother Crǐshna, according to the Puran'as. He began his reign in the year 191, and was also considered as a Vicramáditya, 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 Vicrama'ditya, the is called in the list Gandhanpa'La, or fostered by an ass. This prince is omitted in several copies from the west; and between Gandha-pa'ta and Vicramáditya, or Vicrama-pa'la, as he is called in these copies, there intervenes a king called SA'DATpa'la. 'This Vicrama'ditya had two sons, one called Tilaca-chandra, who reigned only two years, and was succeeded by his eldest brother, $\mathrm{VI}_{\mathrm{I}}$ crama-séna, or Vicramáditya; and this TilacaChandra appears in the character of BhartrlHARI.

The next period is that of Maha'bhat'-Sriman' Maha'ra'ja', or Muhammed the blessed, or fortunate, the great commander of the faithful. In various copies he is called Maha'b ${ }^{\prime} A^{\prime} \mathbf{t}^{\prime} \mathrm{T}^{\prime} \mathrm{A}^{\prime} \mathrm{RaCa}$, and Maha' bhat'tárica. In Mr. Harington's list, the epithet of Paras'u, answering to Seffullafi in Arabic, or the sword of God, is prefixed to his name. In all the copies from the west of India, he is called Maha'Prema, for Maha-Pramára, the great destioyer; and to the names of his four confidential associates, the epithet of Prema, or Prema'ra, is also added. Instead of Prema, we should read Pramára, or Parimaira, the destroyer; for, in the SatrujayaMahátmya, a favourite tract of the Jainas, he and his friends are called the Pancha-máras, or the five destroyers. It is said there, that $\mathrm{JINA}_{\text {, }}$, in his last incarnation, as Gautama in the shape of a white elephant, and therefore denominated 'Srí-Hasti-sena, having obtained eternal bliss, then, three years, eight months, and fifteen days after this event, there would appear 'SACHA-PANCHA-M'ARA, who would put an end to all Dharma, or religion *s

* \$acra, or the mighty chief.

144 ESSAY ON
Thus the death of Gautama happened in November 617; and his death, in the Purán'as, and according to the Japanese, is placed either late in the sixth, or early in the seventh century. Pramiara, the great destroyer, or Pari-míara, 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 PanchaMáras, or the five destroyers. Mr. Harington's list, which was brought from Assam by the late $\mathrm{D}_{\mathrm{r}}$. Wade, seems to have been new modelled by the Jainas; as Gautama is introduced there, waging war against a certain Manu.

The next subject of inquiry is the Cumáricác'harida, a section of the Scanda-purán'a. The copy in my possession was written in Gujjarát two hundred and thirty years ago, or in the year of Vicramaditya 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, 280 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 Puránia 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 Vicramáditya is mentioned in the Ct-máricila-cihanda*, in which it is declared, that after 3020 years of the Cali-yuga had elapsed, then would Vicramairca 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-yıga, to be found in the Bhágavata, Brahmainda, Vàyu, and Vishmu-purán'as, 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-RA'Ja, or the king of thickets, which is another name for Gandharura, or Gadua-raja in the west. This looks like an interpolation; and the more so, as it will appear hereafter, that Ghosha-Ra'ja died in the year 440 of our era.

This is the Vicramáditya, after whom the present Samoat 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-fazil, 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 Cumáricí-c'handa $\dagger$, in which it is declared, that after 3100 years of the Cali-yuga were elapsed, then would 'SACA, or 'Sa'LIVA'HANA, appear. By

* Paragraph. 42d. Vol. IX.
this first year of 'Sa'ma'hana, 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, Vichama'rca lived 56 years; his death happened then in the 57 , or the first of the Christian era, the very year in which 'SA'LIVA'HANA, the lord and master of Rome, made his appearance, and after whom the era, in use through that empire, is denominated.

The second Vicramáditya is the same with 'Srí-Carn'a-De'va, called also S'udraca and S'uraca; and is mentioned in the Vétálapancha-vin'sati, under the name of Vicrama-ce'sabi, prime minister of the E'mperor of India, at Pátall'-putra-ipuram. It is he, to whom a Bráhmen gave strong hints, to seize upon the throne, and avail himself of the infirmities of his master. He is the Vicramáditya mentioned by Feitshta, in his history of India; and whom he makes contemporary with Sapor, king of Persia. He is also mentioned in the Bhofja-charitra; for, when Ra'ja'-Munja wanted to destroy secretly young Внósa 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, "Srí-Carna-Ra'ja-Victama 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 'Srí-Carn'a-Ra'ja-Vicrama was conferred upou Виója 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 eras were soen doomed to oblivion.

The third Vicrama'ditya was the son of Garddabharupa, or Rashabha-se'na, or the man with the countenance of an ass. That name is pronounced Gadha'rupa, or Gandha-rupa, in the spoken dialects; and he is called also Gadhendra, or the lord of asses, and Ghosha-ra'ja, or the king: of thickets and bushes.

In the list of the emperors of India, in the annexed table, he is called Gandha-pa'la; and, at Ujjayiní, his name is Gandha-ruffsena, according to Dr. Hunter of our Society *. A. Roger writes it Veneroutrsi, or Gueneroutfsi: but says, that it was the name of the sister of Vicramáditya, who, they insist in the Deccan, was himself the son of a Bráhmen of Benares, called Chandra-gupta; and there is a fulsome account of the birth of this Vicrama, in the first section of the Sinhásanadwátrin'sati, called Vicrama-Upác’hyána. "In Gurj-jara-manidalam are the Sábharamatí, and Mahí rivers: between them is a forest, in which resided Tamra-afpta-hisht, whose daughter married king Tamras'ena. They had six male children, and one daughter, called Madana-reciha'. The king had two young lads, called Deva-s'armá and Hari-s'armá, whose duty chiefly was to wash, every day, the clothes of their master, in the waters of the nearest river. One day, as Dévas'arma' went, by himself, for that purpose, he heard a voice saying, tell king 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 Hart-s'armá to the 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,

* Asiat. Research. Vol. 6th. p. 35.
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 Gand'harva, or heavenly choirister; whe, 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 Cumbhacára, or potter, in your capital city; and I am daily roving about in quest of foorl. 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 to-morrow. 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 Gandyarva's name was Jayanta, the son of Brahmá. 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 Vicrama-Upac'hyàna, that the mother of the damsel 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, informing 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 hep
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 Bhartrì-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 Máliń, or the wife of a gardenet, 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 Málini went to LJjayini, with the maid; and from the signal preservation of the child, in that city, it was also called Avanti, from the Sanscrit ava, to preserve.

In the Agni-purin'a, the father of the damsel is called Sadasvasema, in the Bhávishya-puráría Vasud'ha': Ferishta says that his name was Basdeo; whom he represents as emperor of India, and residing at Canouge; but the author of the VicramaUpáchyína 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 Gurijairusht'ra (or Guijar'át', ) with some adjacent districts. In the Ayin-Acberi he is called Sudhrowsheneh, and at Ujjayiń, Sundersena, according to Dr. Hunter, who says that this incarnation took place in the time of that prince *. This is obviously the history of Yesdejírd, son of Bahram-Gór, or Bahram the ass, king of Persia: the grand features are the same, and the times coincide perfectly. The amours of Bahram-Gór, with an Indian princess, are famous all over Persid, as well as in India. According to D'herbelot, there is still a romance in Persian, called the amours of Bahram and GulExdam, the Indian princess.

[^31]This Vicrama'ditya ascended the throne of Má* lava, in the year 441, reckoning from the first of 'Saliva'hana; and 753 years after the expiation of Chánacya, according to the Agni-purán'a, answering equally to the year of Christ 441. In the Bha-vishya-purán'a, in which the years are omitted, VIcramaditya 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*, 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 $\dagger$.

This Vicrama was the son of the man with the countenance of an ass ; but his grand father was AtiBrahma', in the Ayin-Acberi, and whose father was Brahmá. Now Yezdejírd, called Isdigertes by the Greeks, was the son of Bahram with the nick name of Gur or the ass. His grand father was another Yezdejird, called also Vahames or Baram, with the title of Athim, and answering to AtiBirmah; and whose father was called Bahram, the same with Brahara, Birmah, or Bahram, as his name is spelt by Tieffenthaler, and in many MSS. lists. The Greeks pronounced it Varames, and even Baram, as it is written by Theophylact Simocatta $\ddagger$. Jayanta, the son of Brahmá, incurred the displeasure of Indra, king of the elevated grounds of Meru, or Turkestan; and was doomed, by him, to assume the shape of an ass, in the lower regions. Bahram-Gur, or the ass, likewise incurred the displeasure of the Khacan, or mortal king of

* Du Fresnoy, Vol. 2d. p. 408. + Anc. Univ. History, Vol. 9th, p. 278. $\ddagger$ See Photii Bibliotheca. p. 87.

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 caresses 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 Gad-'hendra-puri, or the town of the lord of asses. The present name is Gosherì, or Ghojárá for Ghosha-ráya or Ghosha-raja: for, says my Pandit, who is a native of that country, the inhabitants, being ashamed of its true name, have softened it into Ghoshera, which has no meaning. Bauramt, the ass, had 12000 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 iutrusted 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 beloyed by his troops, the emperors of Constantinople 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-purán'a, he is declared to be Carríunsya, or of the family of 'Sri-Carn'a; which is possibie on the maternal side.

This is the Vicramaditya, whose younger brother was called Bhartriynari; 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 Málaca, 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 countries; 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 thereby obtained a boon from him, to sit upon the throne for 100 years.

It is the general opinion, that Vicramáditya put his brother 'Suca'ditya, or Bhartrǐhart, 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*.

Bhartry̌hari, according to the Hindus in general, withdrew to Chun'ar near Benares, where he remained some time; when his brother gave him a purganah, or small district, called to this day Bhartari, and

[^32]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 Mahá-Bhárata : 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 river Burriá, to the north of the city, exactly in the shape of the hill of Chunár, on which he resided. It is a work of great magnitude ; and near it is a small village, called, from that circumstance, Páhár-pur, or Hill-burgh.

In the lists of the kings of Grealior, both MSS. and printed, it is declared, that Su'rya-se'na, or Su'rya-pa'la, called also So'ma-pa'la, built the fort of Gzalior, in the year 332 of Vicrama'ditya, by whom we must understand the son of BahramGo'r ; and thus, the building of this famous citadel took place in the year 773; and probably, on account of the astonishing progress of the Musulman 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 prophetic chapters of the Váyu, Brahmánida and Vishnu-puran'as: but the latter is more explicit, on this subject, than the others. After the death of Pulo'ma', in 648, there appeared, in Anu-Gangam, or the Gangetic provinces, a king, called Vis'vas'piatica, or Vis'va-s'phurjr ; who drove away the Bráhmens and Cshettris, and raised to that dignity persons of the lowest classes. After him came the Nágas or Nácas, who divided among themselves Anu-Gäng-
am, and the countries to the westward: some resided at Padmároatí (or Patna; ) others at Prayága, (or Allahabad). There was a branch of them who settled at Cánti (now Cotwall near Gwalior, ) and another at Mathurá: and there were nine families of them. There is still a tribe of the Nágas, or Nácas, on the banks of the Jumná, about Calpi. They seem to form a singular tribe, but I am otherwise unacquainted with them.

Thus Su'rya-pa'la, or Sóma-pa'la, built this fortress, in the year 773, and of Vicrama the son of Bahram-Gu'r 332 ; which computation is further confirmed by another epoch. AJA-pa'la or Gebal, is said by Ferishta', to have been assisted in his wars against Mahmud, by Tandepaila king of Gwalior. There is one Dhand'hupa'la, 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 Súryarála consisted of eightyfive princes, according to the prediction of Gópa', chala the hermit, (called in the Persian list Gua'mipa';) and ended in the person of Teja-ca'rn'a, 103 years before Gwalior was taken, by Shamseddin, or Firoze the 2d; (who ascended the imperial throne in 1259;) having lasted above 410 years, which is certainly too little for 85 reigns: but these inaccuracies are not uncommon with Hindu chronologers. Lieut. Wilson informs me, that a Bráhmen, in the service of Ca'ndu-jee, has sometime since written a history of Gzealior, in Sanscrit, in which he places Su'ryatpála, or Sómapa'la, in the Dwapar age: and the author declares, that his account is conformable to ancient inscriptions, still exjsting on the rocks of Giwalior; and
that the chief circumstances in his history are entirely taken from them. If so, neither the inscriptions, nor the work itself deserve much eredit. BAHRAM, with the epithet of Gûr, in Sanscrit Gardabha, or the ass, is the founder of the Garddabhina dynasty, mentioned in the prophetic chapters of the Purán'as. The Hindus say, that when Garddabira 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 RaghuNa't'h's list, we find, that the son of Gadha' Pa'LA, or Garddabha, was Vicramaditya; who had two sons Talaca-chandra, who reigned only two years, and another called Vichamáditya also, who succeeded him. According to Persian history, Garddabha had a son called Yesdejird, who succeeded him. This prince had two sons Firoze, the eldest, and Hormuz the youngest, sirnamed the wise; whom, on account of his wisdom, he appointed for his successor; and, to Firuze, he gave the government of Sigistan and Mecran. The account of these two brothers has much affinity with what they relate, in India, of Vicramaditya and Bhartrîhari. Some say that Vicramáditya 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 abocie in Gujjarât', at Ujjayini, and near Benares. The dynasty of the Gardubhinas is probably that of the descendants and successors of Bahram Gûr 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-Gûr 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 Oudypoor, and the Marhattas, are descended from them and their followers, as it will appear in the appendix. In many copies of Raghu-na'th's list, instead of Gadhá-pala, we read Cshéma-pála, or some other name. Next to him, a prince is introduced, called Sadat-pa'la; probably for Sada'siva-pa'la, the name of the father in-law of Gadha'-pala, or Bahram-Gûr.

As the famous emperor Вно́Ja is not noticed by foreign writers, the period in which he lived is involved in much obscurity. In the Ayin-Acberi*, Bhója is said to have ascended the throne, in the year 541 of Vicramáditya'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 'Satrujayamahatmya, we read 477 instead of 541 , and this will place Bhósa's accesssion 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 Vicramáditya, who reigned 108 years; and 477 years after, appeared 'Sala'ditya, in A'súrápura. The era is that of 'Sa'liva'hana, and as

[^33]the Jainas reckon from the death of Vicra'maditya, the whole will stand thus, $466+79-108+477=914$, for the year of Christ, in which Bhója ascended the throne. Major Mackenzie, in his extractscommunicated to the Society, says, that in the Delihin it is recorded of Buósa, that he reigned fifty years five months and three days; and that the famous Ca'li'-dása lived at his court. Accordingly, Bhója died in the year 965 or 969 , if we place his accession in the year 918. The author of the Satrujaya-mahátmya places the accession' of Vicrama'ditya in the year of Christ 437, instead of 441; and when we read, in the Ayin-Acberi, that Bhbja ascended the throne in the year of Vicramáditya 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, ia 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 Jaya-nanda, who died without issue, when Chaitra-pála, or Jyte-pála of the Tozara tribe, was raised to the throne. After fighting several unsuccesful battles with Sultan Mahmood, he pue an end to his own life, in the year 1002, and was succeeded by his son Mahéndra pala. This. Chaitra-pála or Chandra-pála, and in the spoken dialects Chaitra-pála, Jyte-pála and Gepal, 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-pa'la or Chandra-pála. He was a most powerful prince, and his authority was acknowledged all over India; and he is mentioned in the Ayin-Acberi*, under the name of Chandra-pa'la: but he is placed erro-

[^34]neously before Ra'ja'-Bhója. This is the Victa* máditya, who is made to wage war against Mahabhatt and the Mahábhatádicas, Muhammed and the Muhammedans. No Hindu prince could have waged war against Muhammed; 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 'Sa'liva'hana. The Hindus have confounded Sultan Mahmood with Muhammed, whom they claim as their own countryman, as well as 'SA'LIVA'HANA, whilst 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-Gûr, and his descendants; and in the same manner, they insist, that Acbar 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 Bráhmen, 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 Tapasya, 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 Acbar, who, as soon as he ascended the throne, went to Allahabad, and easily found the spot where the brass plate was buried. Thus the Hindus claim Muhammed 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 Maha'bhat, or Muhammed.

The Hindus say, that the son of a certain king of India, being disgusted with the world, turned pilgrim, and went to Mócshe'swarastha'na, (or Mecca). In his way thither, and in Arabia, he stopped at the house of a Bráhmen, who received him kindly, and ordered his daughter to wait on him, as usual. Whilst asleep, the eloth, 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 courses suddenly making their appearance, she was much distressed, and lookingevery where for some cloth, she spied the bundlein 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 Bráhmen.

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 Candáhár. This Mediná 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 Muamamed with Sultan-Mahmood, whose sumptuous Mausoleum is close to that city. Thus we see, that the account they give of Muhammed is a mere rhapsody, retaining some of the principal features of the history of Ishmáel, Hágar, Muhammed himself, and Sultan Mahmood.

This Samvat, or era, of Maha'bhat, was early introduced into India, and the Hindus were obliged to use it, as they do now in all their civil transactions; and thus Muhammed became at least a Sambatica or Santica. According to the rules laid down by the learned in India, Mohammed is certainly a Saca and Sacéswara, 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 'Sacéswara, or the ruler of a sacred period, still in use in India. For these reasons, the Pandits who assisted Abul-Fazil, did not scruple to bestow 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 Vicramaditya's appearance,
coincide with the era of Muhammed, they have most shamefully distorted the chronology of the appendix to the Agri-puránia.


Ayin Acberi,
'Sáliváhana, $\cdots \cdots . . .1$ or 0
Naraváhana, . . . . . . . 100
Putra-rájas, ........ 100
200
Aditya, ............. . 8673
184 Birınáhraj, . . . . . . . . . . 30
At-Birmáh, . . . . . . . . . . 90
\{Sudhrowsheneh, for
\{Sadásva-sena, ....... 80
Heymert, ............. 100
Gundrup, . . . . . . . . . 35
1st. of Vicranáditya, $\quad .6217$ s
In the MSS. copy of the Ayin Acberi used by Tifffenthaler, the days and months were omitted. In several we find seven months, and three days once only; and the repetition in other MSS. is owing probably to the carelessness of transcribers. Here one year only is allotted to Sa'livaihana, and 100 to Nara-va'hana, who is the same with 'Sa'liva'hana, 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 'Sa'liva'hana, but not of his era, was the 3101 of the Cali-yuga, answering to the first of the Christian era, according to the Cuma-ricá-c'harida; and consequently, thisV icrama'ditya's accession, to the throne, happened 621 years after Vol. IX.
the birth of Christ, according to the MSS. perused by Tieffenthaler; and 621 years 7 months and 3 days, according to others: and the Hejra began, when 621 years 6 months and 15 days, of the Christian era, were elapsed; the difference is surely trifling. That the Pandits, who assisted Abul-Fazil, pointed to Muhammed, under the name of Vicramáditya, is confirmed also from two dates in the Ayin Acberi, in which the years, said to belong to Vicramáditya's era, are really to be teckoned from the beginning of the Hejrá. 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 Aureng-Zebe, the most intolerant of all princes, when Raghu-n'atia wrote the Vansícall, at his command, he introduced Muhammed by name, with the title of 'Sri'ma'n-Maha'ra'ja. In this attempt, the Pandits, who assisted Abul-Fazir, most shamefully ${ }^{*}$ disfigured the chronology of the supplement to the Agrai-purańa. Of S'áliva'hana and Narava'hana, they made two distinct persons; as well as of Bahram, with the title of Gurr, in Persian, and Hamane, or the wild ass, in Arabic. Thus they introduced Harmar or Haymert, and Gur or Ganda-rup: to the former they allotted 100, and to the latter 35 years; and they had the assurance to teil Abul-Fazil, that it was declared, in their sacred books, that Hamar having been killed in battle, his soul passed into the body of GandanUP *. 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 Vicrama'ditya, the son of

* Ayin Acberi, Vol. 8. p. $5 \%$.

Bahram Gûr, to the throne, is placed, in the supplement to the Agni-purín'a, A. D. 437; and the same date is given, in the 'Satrijaya-mahatmya, as we have seen before *. This event is placed, however, in the year 441, or 442 , by chronologers in the west; and in the appendix to the Agni-purina, the accession of Aditya is placed in the year of Christ 185; but, in the Cumárica-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 Muhammed, or Mahmood, is generally written, and pronounced, by Hindus, Ma'habhat', which implies a great warrior: hence he is called also Maha' Ba'hu, Víra-báhu, and Mahá-Víra-ba'hu. It is written also Maha'-bhat'táraca, Mahábhat'táárica, and Moha-bhat'tiár. In the Vansácáli, he is styled 'Srima'n-maha'-raja, 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 Bho'sa is dignified with the title of Srí-Carna-Ra'Ja-Vicrama, in the appendix to the Agri-purán'a. In the Vansávali, as new modelled by the Jainas, the epithet of Parasu is prefixed to his name, and not improperly; because, like another Paras'u, he and his successors destroyed the kings of the earth. Paras'u signifies a sword, or scimiter; and here, perhaps, alludes to the epithets of Seisullah, (the sword of God,) and of Zulfecar, so famous among his followers.

It is said, in the Vrihat-cat'ha, that he was from Ananga-désa, or the country of Ananga, another name for Ca'madéva, and supposed, by Pandits,

[^35]to be to the westward of India. In the Vanstroali, instead of Ananga, it is written Benga, or Bengal. The Ha'mire, or Homar', introduced as his successor, $_{\text {a }}$ 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 Нa'mir is the famous Ha'mík, $^{\prime}$, general of Moavyeh *, who waged a long and bloody war, with the Hindus, in the countries bordering upon the Delta. Moavyeh began his reign in the year 661, and died in 679; and the wars of Hamir, with the Hindus, took place about the latter end of his reign. In the Vansáráli, he is called Ha'mírsinha, and Ha'mír-séna: but, in many copies, the first syllable of his name is clropped, and we read Mir-séna, Dírsíína, and even Dísena; and, in some copies, he is said to have been a native of Ananga.

The title 'Srima'n-maha'-ra'ja was probably bestowed upon Maha'-bhat', in compliment to Au-reng-Zebe, by whose order the Vansáváli was written. The Hindus, in general, never speak ill of Muhammed; 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 Muhammed, neither he, nor his followers, ever troubled themselves about India: but soon after his death, and in the year 636, Oma'r began to devise means for the invasion of that country; and the first step he took, was to build Basrah, or Bussorah. He then sent Magai-reh-abul Aas, according to the Ayin-Acberi $\dagger$, who, setting off from Baharein by sea, invaded the west-

[^36]erin 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 . Оthman, 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. Moavyeh sent twice his general Amir, or Ha'mir; but, after long and bloody conflicts, he was forced to desist. Under the Caliph Wa'lid the conquest of Sind was at last effected by Muham-med-Casiai, A. H. 99, or of Christ $717 \dagger$.

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 Mahábhat'adicas, Muhammed their chief, and the intolerant spirit of their new religion.

Let us now pass to the second part, from the first year of Vicramáditya, to the death of Pritheíi-ra'ja, and of Jaya-chandra. In this part, the appendix to the Agni, and also to the Bhavishya-puran'as, agree pretty well with the AyinAcberi, in regard to the number of kings, and the order of succession. There is, however, in the AyinAcberi; a material difference; for three kings, who are placed after Bho'fa, in the two first lists, are transposed in the Ayin-Acberi, and put before Bho'sa, and in an inverted order of succession. These are Ra'ma-chandra, (called there erroneously Kurrum-

[^37]cuid) Chandra-pála, and Mehe'ndra-pála. The reason of this transposition is, that the Pandits, who assisted Abul-fazie, having placed the accession of Bhoja 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 Bно'ла, particularly as they found there a king, called also Man'endra-pa'la, the grand-father of Bho'sa. Another mistake, in the Ayin-Acberi, is the introduction, not only of a collateral dynasty, but the metamorphosing 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-purán'a.
Vicramáditya - - 100 years
Chandra-se'na, - - 50
Su'rya-séna, - - - - 8.5
Chandra-s'ena is omitted in the Ayin-Acberi,
SActi-sinha, - - - 85
In his time the era of 'Sa'liva'hana prevailed over that of Vicramáditya.
Chádga-séna, - - 85
he resided at Ujjayiní,
At that time Ataca, called Va'taca in the Purän'as, reigned at Dharránagara, for the space of 190 years, or rather his dynasty. Suc'ha-s'ena or Sumuc'heséna, and after him Chadga-sena reigned at Chittracuta (in Bundelcund). The first reigned 88 , and the second 86 years; and these appear to be collateral dynasties.

Then came Mahéndra-pála, called Vijayananda in the Ayin-Acberi, and these two epithets imply a great conqueror. It is said, that he reigned
1.00 years at Yóginí-pura, or Dilli; but it is a mistake, for the Mahéndra-pála, who reigued in that city, lived after Buósa. After his death, Munja was appointed regent, during the minority of his son Bhósa. He resided at a place called Sonitpura, and reigned 86 years. After him, Beósa 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 Vicramáditya, the son of Garddabha, to the throne; or in the year of Christ 1480; thus confounding together this Vicramáditya, with the one after whom the era is supposed to be denominated. In this manner, he has carried back the first year of 'Sa'liva'hana, 441 years before Christ; and the expiation of Cuánacya and Chandragupta, 753 before the same cra. His idea however, was, that Jaya-nanda died in the year 1095 of Vicramáditya's cra, answering to the year of Christ 1039: and as Bhóra reigned only 50 years, instead of 91, a further correction will place the death of JAYAnanda in the year of Curist 998, whieh is pretty near the truth. These inconsistencies and contradietions, so frequent among Hindu chronologers, are disgustful in the last degree, and must greatly retard the progress of historical research.

He was succeeded by Chaitra-pála, the son of Ra'ma-chandra, a powerfal zemindar, in the country of Gauda, in Málaca, and of the Tomára tribe. In the Ayin-Acberi* we read, that, when Jaya the son of Bhóra died, there was not found any one of the Pomára or Powár tribe, worthy to

[^38]wear the crown; on which account, Chytepat, an eminent zemindar, was chosen king; and he founded the Tomára dynasty.

In these three lists, we find two dynasties introduced, the Tomára and the Chauhán: but these were collateral, at least for some time; as is obvious from the context of the appendix to the Agni-puran'a, in which it is declared, that Jidahána, called Prïth-wí-raja in the Ayin-Acberi*, was defeated, and killed in battle, in the country of Sambhala, by the Chauháns, who thus became kings of Yógini-pura, or Dílĺ. This happened, says Abut-Fazil, in the year of Vicramáditya 848 (it should be 488); and as the first year of Vicramáditya is made in that section, to correspond with the first of the Hejra, the death of Jidaha'va happened in the year of Christ 1110. This is further confirmed by another passage from the same author $t$, in which he says, that the dynasty of Bala-deo, or Bildeo, the Chauhán, lasted 83 years, and seven months, that is to say, from the death of Príthwíraja, who was slain by Baldeo, to the death of $\mathrm{Pr}-$ thaura', in the year 1192, or of the Hejra, 588: and from the beginning of the Hejra, to the year 1110 of Christ, there had elapsed exactly 488 Hindu or Lunisolar years $\ddagger$. Accordingly, these two dynasties will stand thus:
*Vol. 2d. p. 118.

+ Vol. 2d. p. 115.
$\ddagger$ Vol, 2d. p. 118.

The Toma'ra Family.
Ràma-Chandra, Zemindàr
of Gau'da did not reign.
Chaitra-pála his son, emperor
of India, had two sons;
Mahéndra-pála, Raya-séma, called also Chaun'ana Family. emperor


In the account of Subah Dilli, by Abul-Fazil*, the list of the Chaukán princes, who reigned aftet the year 1109, is erronenus; but in the account of Subah Málwat, it agrees with the appendix to the Agni-purána.

Musulman writers inform us, that after the death of Gebal, or Chatt-pála, the Balharakings, in Gujjarát', became lords paramount, or emperors of India: and, in the Agni-puránia, we find that Char-tra-pála had two sons, Mahá-chandra-pála, or Mahéndra-palia, who proved at last a weak and foolish prince, and his brother Raya-séna carried away his wife, and built Dilli. He was called Ananga-pála, or befriended by love, and Ratípa'la, or fostered by Ratí, the goddess of love, and the consort of Ca'ma-deva; perhaps in allusion to the above transaction: hence the founder of Dillí is called by some, Ananga-pa'la, and by

[^39]others Raya-s'ena. He is noticed by Tiefferithaier, who calls him Rasena, and says that he built Dilli*. Abul-Fazil, in his account of Subah Dilli, places this event in the year of VicramáDITYA 499: and in a former section, he makes the first year of that era to correspond with the first of the Hejrat. It happened then in the year of Christ 1050 ; and this is confirmed by another passage from the same author $\ddagger$, in which he places the building of Dillt, or the beginning of the Tomára dynasty, in that city, 142 years before the death of Pithaura', in 1192; and this gives the same result.

After the defeat and death of Príthwí-pa'la, or Jida'hana, in the year 1110, his son Vigahaina returned to Gaud a, his native country, according to the Agni-puránia; but we find still three of his descendants, reigning at Dilli, Sanca-pa'la, Cirttipa'la and Ananga-pa'la. In the Agnipuráría it is said, that Ray-sena conquered the Antar-vedi, or country between the Jumná and the Ganges; and also the country about Dilli, and settled there. The Chauhanas possessed at the same time, Sam-bhala-des'a, or the country of Samblala, to the north of Canouge.

Anaga-paida, the last king of Dilli of the Tomára dynasty, being withont male issue, adopted Prithiwí-ra'ja, or Pithaura', the last of the Chauhán dynasty. This account is to be found in the history of the wars of Pirthí-ra'ja, or Pithaura', in the spoken dialects, part of which is in my pos-

[^40]$\ddagger$ Vol, 2. p. 115, 118.
session. There it is declared, that Ananga-pa'la had no male issue; and that he gave his only daughter in marriage to the Chavifa's king of Sambhala-des'a; who had by her a son, called Prthaurá. Ananga-pála adopted him for his own son, and appointed him his successor to the throne of Dillí; recommending him, at the same time, to Jaya-chandra, emperor of India, and residing at Canouge. This happened, says the author of the above treatise, in the 120th year of king Anangapala; but more probably 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 Chohan 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 Chohán family; and of course, that it was the province of Pithaura', who had absented himself, because he thought that the usurper 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 Sinháladwipa, or Ceylon, the hing 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 Pithavra'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 Dilli, and recovered also the imperial throne. But he did not enjoy it long; for Sahebuddin 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. Prthaura' fell in the plains of St'hánu-sar or Thaniu-sar; and it is said, near a village, called Naráyana pura. The league, between Jaya-chandra and Sahebuddin, did not last long; and in an engagement, in the year 1194, between Chandwár and Etárwáh, Jayachandra was completely routed, and obliged to fly; and, in attempting to cross the Ganges, in a small boat, he was drowned *.

After the famous expiation of Chanacya, which I mentioned before, in my essay on the Gangeticprovinces, the author of the appendix to the Agnipurínia proceeds in the following manner. "Ambura'Ja, (or the king of the waters surrounding India), Maha'-pati (the great sovereign lord), Bhumí-pa'la, (the fosterer of the world), reigned a hundred years. After him came Ra'ma-chandra, who reigned twelve years; and was succeeded by Bha'rata, who reigned in Ujjayiní, 200 years."

Ambu-ra'ja is obviously Chandra-gupta, whose reign here is made to begin, and not improperly, immediately after the expiation of Cha'n'Acya; when every thing was settled, and Chandra-gupta acknowledged paramount of India.

Thus, from that famous expiation, to the end of Bha'rata's dynasty, there are 312 years, ending the year preceding the first of the Christian era: but according to the Cumáricá-c’kanda, this expiation took place 310 years B. C. and the difference is trifling.
"Then," says the compiler of the appendix to the Agni-puran'a, " at Pratisht'ina in the Deccan, through the mercy of S'Iva, will appear 'Sa'liva'hana, Mahá-bali, great and mighty; D'harmátmé, the soul and spirit of righteousness and justice; Satyaváca, his word truth itself; Anasíyaca, free from spite and envy; Rajyam-uttamam-critaván, whose empire will extend all over the world; Nara-váhana, the conveyer of souls (to places of eternal bliss): and he will reign 84 years."

Nara-oíhana 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 vector in majore navi, the conveyer of souls in the larger boat.
"Then will come Nara-va'hana (in the Bharishya pur'́n'a Nri-sinha) who will reign 100 years." Nara-va'hava and Nkìsinha are two well known epithets of 'Sa'liya'hana, 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 Narava'hana and Vansa'vali." In the Ayin-Acberi*,

- Subah Málwah.
in the room of Va'vsavaet, we read in one copy Vans'a-raja, and in another Putra-raja, and the former is retained by Tieffenthaler. Vansiara'ja, signifies the royal offspring, Putra-rajoa the royal children, and VAN'SA'VALI, offspring or descendants, and also an account of them. The two former are generally pronounced RAJA-PUTRAS, and $R_{\text {ajta-vansa's ; and they are introduced here, }}$, because there are some families of $\mathrm{RA}_{A^{7} J A-P U T S}$, and Ra'ja-vansas, who really pretend to be 'Sa'lavansas, or the offspring of Ha'la or 'Sa'la-vahana. To these, very properly, no years are allotted in my copy of the Agni-purária; but, in that used by AbulFazil, 100 years are given to them; and none to 'Sa'livaha'na, or if you will, one year only.

Thus in my copy we read,
'SA'LIVA'HANA,

Naravahána and the Vansa-halis?
or Vapusávoulis . . . . $\} 100$
184
But in the Ayin Acberi we have,


$$
200
$$

Hence it appears, that originally ${ }^{\prime} \mathrm{SAL}^{\prime}$ 'IVA'HANA and Nara-va'hana, in this place, were considered but as one individual.
"Then will come 'Aditya, who will reign 55 years." His reign began the 185 th year of 'SAL'IvA'HANA, and of the Christian era, according to my copy; but in the year 201, according to the Ayin Acberi. 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 Sinhúsana dwátriushati. He is mentioned under the name of 'Sudraca, or 'Suraca in the Vrihat-cathá, and under that of Vicramacesari in the Vetalapanchavinsati, as we have seen before*; and according to the Cumáricáachhanda, began his reign in the year 191 of the Christian era. After him came Brahma'-rása, who reigned 87 years in Vidharbha-nagari. His successor was Att-Brahma', who reigned at $U j$ jayini: 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 Sada'síwa," called Vasudha in the Bhavishya, and Basdeo by Ferishta: " he reigned 84 years."

In his time appeared Marsha-mégha or Rashabha, called Gandha-rupa in the Ayin Acberi, and Bahram-Gór in the history of Persia.

His son was Vicamaditya, (in the Bhavishyaz two persons are mentioned, Bhabtrihari and SríVicrama'ditya;) who began his reign accordingly in the year 441, reckoning from the first of 'Sa'Liva'hana, and answering of course to the same year, (441,) of the Christian era: and the son of Bahram-Gór ascended the throne in that very year. 'Srí-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 Paitánas ; that is to say, the inhabitants of Pátína. in the Deccan, but not the Patans, as Bernoulla

* Page 107, 146. reigned 50 years: then came Su'rya-s'éna, who reigned 85, and died of course 135 years after VIcram'aditya. S'urya'-s'ena seems to be corruption for Su'rya'nsa, or 'Srí-su'rya'nsa, another name for 'Srí-Sa'liva'hana, as I shall shew in the next essay: and, like 'Sa'liva'hana's death, his is placed exactly in 185th year of Vicramáditya's era, and the same number of years after his death, and in the yearr 676 of the Christian era. But it does by no means follow, that there existed at that time a prince called either 'Sáliva'hana or Su'ryantina; 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-sinia, and in the room of Vicrama'rca, the Saca-bandhi,) "'Sa'lav'ahana will be chief of the Saca, or sacred period;" or, in other words, his era will prevail over that of Vicra'marca.

Vicramarca't param chaica 'Saca carttá bhavishyati. 'Sa'lava'hana námnaioa prasidd'ham punar asya tu.

Then, after Vicranaírca, 'Sálavaiána will be the maker (ruler) of the S'aca.

The famous Bhója was the son of Ra'ja-sinpula, 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 Punsa, was therefore intrusted with the regency.

Munja wrote a geographical description, either of the world, or of 1ndia; which still exists, under the name of Munja-prati-desá-vyavasthá, or state of various countries. This voluminous work was afterwards
corrected and improved, by Ra'ja-Вно́ja; and this new edition is called Bhọja-pratides $a-v y a v a s t h a$, and still exists in Gujjarát.

When Bhósa ascended the throne, he found the famous Sinhásana, or lion-seat, which had been buried since the days of Vicramaiditya, and thereby became entitled to that epithet, which was confirmed to him by Bali, when ie visited the infernal regions. He is also called 'Srí-Carn'a-ra'ja-Vicrama, with the title of Aditya, which last is used often separately, and was also a title bestowed upon 'Srí-Carna-De'va, whom he alluded to in the stanzas he sent to Munja*, and which afterward, from that circumstance, was bestowed on him. When he died, the goddess Sarasvatí, presiding over the sciences, wept bitterly, saying " where shall I find now a place to dwell in." Bhósa ascended the throne, as we have seen before, in the year of Christ 913; and he resided at Dhárárnagar, commonly called Dhár, in the province of Málava. He had an only daughter, called Banumati, whom he gave in marriage to Jaya-nanda, who conquered all India, and is reckoned as the last of the worthies dignified with the title of Vicramáditya, though some reckon Jaya-chandra as the last; and indeed Jaya-nanda and Jaya-Chandra are often mistaken the one for the other.

In the appendix to the Agni-purlinia, the author concludes with declaring that some bundred 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 'Sweta-dwipa, or the White Island in the west, to implore Vishnu's protection, in their own name, and also in the behalf

[^41]Vol. IX.
of men. Vishmu comforted them, as usali, and promised that he would appear in the character of Calci-avatarba, when he would exterminate all their enemies." If so, the Hindus must wait no less than 429,917 years for relief. Every Vicrama'ditya had a certain number of learned men at his court; the chief of whom is, in general, called $\mathrm{CA}_{\mathrm{A}}-$ rídasa. According to the supposed appendix to the Bhavishya-puriónc; Vicramáditya the son of Gardabha had sixteen of them. Rája-Bhója had nine, among whom Dhanifantari and Baranuchi were the most famons. These two learned menare called Dhunpa'l and Beruse in the AyizeAsberi. Another Vicrama'ditya had only five; and these leamed 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 Cálidasa lived at the court of king Bнoja. This is confirmed by the extracts commmicated to the society, by Majore Mackenzae, and also in the 8th vol. of the Asiatic Researches*; and 'Sa' ${ }^{\prime}$ 'hathanas is even supposed to have had a poet of that name at his court.

The next list, coming under examination, is from Gujjardét, and was given to me by a Pandit, a native of that country. It is entirely confined to the ancient zulers of that time, and of the arljacent countries; and comes down no lower than the year 1309; and I was happy to find, that it was the same list which was used by the Pandits who assisted Abul-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 Gujjarát', which began A. D. 746.

This list, called also Vansávali, contains the names of the rulers of these countries, under the title, either of Bala-rựás, or Ráyas, or Mahá-Rájás, 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 slifting from the one to the other. Unfortunately, the compiler has not pointed out those who were Rajéndras; 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 Cali-ynga, 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 re-ascend to the beginning of the Cali-yuga, whenever they fancy they can do it with propriety; otherwise, these farmilies would be looked upon as a new race, and their princes as men of yesterday. But these nine and twenty reigus cannot carry the origin of the Bala-Rayás beyond the begimning of the Christian era. This idea, however, is by no means novel; for, among Musulman writers, some make Dabshelim the first Bala-Rááá, contemporary with Hushenk, the second king of the Pishdadian dynasty in Persia; but, according to Masoudr he must have lived a little after the beginning of the Christian era.

The title of Bala-Räja, Bala-Ráyá, or Bala-Raw in the spoken dialects, signifies the great king, and is unknown in India, as belonging to the ancient sovereigns of Gujjarat'. According to our compiler, there were two sorts of these sovereigns, some were

Rájí-Culas, or of royal extraction, such as Vickamáditya and Bhósa; others were descended from: powerful Zemindars of different tribes, the names of which were the Cha-uhána or Chauhína, Chaùdá and Gohelá, to which we may add, from the context of the list, the Solanei, and the Bághelá tribes. According to Musulman writers, the first Bala-Ráyá was Dab-Selim, Dab-Seim, Di-Salem and Di'Slam. These are strange appellations, and unknown in India, at least in that shape; and are hardly reducible to any standard, either Sanserit or Hindí. My inquiries, concerning this ancient and famous king, have proved unsuccessful, unless his real name were Saila-déva, according to learned men from Gujjarát'. This 'Saila-deva, 'Saila-deo, DebSaila 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-Acberi, under the name of Syel-deo *. The word Deva is pronounced Deb in the eastern parts of India, Deo, De' and Dí in the western parts of India; and, in the present list, such proper names as end in De'va, or Deo, in the Ayin-Acberi, have constantly $\mathrm{DE}^{\prime}$ ' in the room of it. This word is seldom prefixed to proper names, yet there are several instances of it, as in Deb-Pai-Deb, a famous emperor, mentioned in the imperial grant found at Monghir, and in Déva-Nausha, pronounced DiNissi in the Deccan. In our list, the first BalaRayá is called Di-SAcA, or De'va-Saca, which I suppose to be meant for Dr-Sàia, Di-Saila or Sail deo.

His descendants are known to Musulman writers under the appellation of Deb-Sallimát, according to D'Herbelot $\dagger$; and their sire is represented as a

[^42]most virtuous and powerful prince, and king of the country of Sóma-nátha, or Gujarát'. Pilpas was his prime minister, and at his command, wrote the famous testament of Hushenk, 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 Crishna. Masoudi, who wrote about the year 947, and had been in India, throws some light, in his golden meadows, upon the time in which De'va-Saila lived.
"The dynasty of Phour, who was overcome by Alexander, lasted 140 years: then came that of Dabschelim, 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 Hindí, is Já Líya', or Ya'líya', the name of a descendant, or successor, of DevaS'aila.) "The next dynasty was that of Couros," (a corruption, from either Carná, Cura'n 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*."

Now, it is acknowledged, that Deb-Salim 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

[^43]dynasties of Puru, Yálifa' and Cunu, lasted aecording to him, either 390 or 350 years. We cannot fix, with precision, the begining of the dyasty of Puru; but at all events, the division of India into four empires, happened in the first century after Cbrist; and according to Arrian, in his Periplus, the city of Minnagara or Mankir, was the metropolis of that part of the conntry. The city is placed, by Prolemy, upon the banks of the Narmadú, and is now called Manhazeer. 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 Acberi, as a town of some note in the district of Mandow, in the province of Malwah.

The dynasty of Déra-Sailim, in Manhawer, according to Masoudi, lasted 120 years; that is to say, bis 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 transterred to lljayimi or Ozene; and he wrote in the beginning of the third century. In his time, the BalatRayais were no longer lords paramonut of India; bat were either vassal, or independeat kings, residing in some fastnesses ainong the mountains, at a place called by him Hippocura; and now Pay-gurra or Pawá-gurra. 'This was, says he, the place of abode of the Bater-curos; or rather the gus, curos, fort or abode, of the Balher kings. According to the appendix to the Agni-purraida, the supposed dynasty of 'Sa'liva'hana lasted 184; but according to the Ayin-Acberi, 200 years.: After it, came A'ditya, of the Pomára tribe, called also Vicramáditya, 'Sudraca and Suraca; he was Visvapati, that is lord paramount of the world, or rather of that part of India. According to the

Cumanicá-chandia, he ascended the imperial throne in the year of the Cali-yuga 3191, and of Chirst 191. The appendix to the Agni-purín'a places his accession in the year 185, and the Ayin-Acberi in the year sol of owr era, and he reigned at Ujjayint: By Prolemy, the king of that famous city, is called Tinstan; a strange name, and not reconcileable to the idiom, either of the Sanscrit, or Hindi languages. I strongly suspect however, that it is a corruption of Adityasthán, which may have been misunderstood, by travellers, who knew very little of the country languages. I suppose that either these travellers, or Prolemy, who conversed with many Hiadus at Alexandria, asked what were the names of the metropolis of that country, and of its king. The answer was İjjuyini-Rigja-Alitya sthán; 'Ujjuyint is the residence of king 'Aditya:' which was erroneously rendered 'Ojené is the metropolis of king Tyastha'v,' or Tinsthand. In the same manner he has distigured the name of the Buther kings, saying that Hippocuros was the place of residence of king Baler-curos, which is obviously a corsuption for Bather-ghur, the fort or place of abode of king Balher. Thus Strabo, in speaking of the country of Tej, in Cacliha calls it the kingdom of Tessaruostus, theyeby implying, that this was the name of the king; whilst Téssariostus is a corruption from Tejaráshtr, or Teja-rasht, which signifies the kingdom of TeJA, an ancient king, who bailt the town of Teja, to the eastward of the Indus. As king Déb-Saila, or Dé-Saila, is called, in our list, Di-Saca, or Deva-Saca, which is also one of the titles of 'Sa'Liva'hana; this would induce an opinion, that Dab-Shelim, or Di-Salim, is the same with Saliva'hana. But such is the confusion and ancertainty 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 Jävidan-khird, or eternal wisdom, called also the will or testament of Hushen e, 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 Cal-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 Hindí, is Burra-Houza, or Burra-Gouza, and has such affinity with Bary-Gaza, or in Sanscrit Bhrigu-Caclihá or Bhrigu'Cula, Bhrigu's shore or beach, that I strongly suspect, that Masoudi mistook Baroach for Manhawer; and that the blunder originated from a want of knowledge of the Hindi language: Manhawer. is also called Mahoura, by other Musulman writers.

Our compiler says, that there were, in all, 36 kings, from Déva-Saca, to the year 802 of $V_{1-}$ cramáditya, answering to A. D. 746 ; but we can make out only 29 from the list; for the five Pramàras must be rejected, as they do not belong to India. They are called in this list, Ch'hárui-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 Chár-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 'Savala', Cerberus or the infernal dog: another, Prama'ra or Parimára, is here meant for Muhammed, and signifies Yama or Pluto, the infernal and universal destfoyer. Cu't'apai'a, he who was fostered by Ma' Ya', or worldly illusion, otherwise the impostor, and perhaps intended for Moavyeh. Muhammed was originally introduced into this and other lists, 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 those lists, 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 'Sa'liva'hana and Vicramáditya; and this is by means a new idea, for it is noticed in the Raja-Taranginí, which is a work highly esteemed in India, and of some antiquity: for it was presented to tire emperor Acbar, in his first visit to Cashmir, by learned Pandits, who considered it as containing the most authentic doçuments of the history of their country.

About the time of Muhammed, the descendants of Déva-Sailim, who for a long time had lost their rank of Visva-páti, lords of the world, Rájendra, lords of kings, Rájáarájás, 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 Málica, in the vicinity of Ujjayiní, where they lived in retirement, and entirely given up to devout contemplation, still very much esteemed and respected. There, at Lijayini, we find one of them called Saila-de'va; who found, in the wilderness, young Vana-rása, and sent him to Rád hanpur to be brought up; and this happened in theyear 696; for Vana-ra'sa, when fifty years of age, built the town of Narwáleh A. D. $746^{*}$. In the

[^44]year 1025, we find another of them, living also in obscurity, and equally called Déva-Saila, or Dabshelim ; and who was raised to the throne of his ancestors, by Sultan Mahmud. The list of the Bala-Ráyás, from Vadia-Ra'ja to Ra'ja CarNA', was originally the same with that to be found in the Ayin-Acberi, excepting some variations; for it is hardiy possible to find two lists in India exactly alike. The number of kings, in both, is twentythree; and the aggregate sum of their reigns agree within 1 wo 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 list supplies also deficiencies, which occur in others. Owing to the uncertainty of Persian orthoyraphy, several names are strangely disfigured, both in the English and German translations; which last is by no means to be neglected, as there are particulars in it, not to be found, either in the manuscript list, or in the English translation of the Ayin-Acberi. Thus, for instance, Ra'Ja'-A'ditya is called Reshádut in the English translation, and Ra-Schadat by Treffenthaler. Vana-RáJa is called Bansra'je by the former, and Braj by the latter. The summary history of the Hindu princes of Gujarát', in the Ayin-Acberi, contains many interesting particulars, not to be found in our list. Vana-ra'ja, according to our list, was of the Chaudáa tribe, still extant in Gujrát'. Abul-Fazil says, that his father was called Samanta-Sinha; and the word Samanta implies, that he was a petty king, probably in Gujrat'; but being of a base and turbulent disposition, he was put to death, by order of 'Srí-Bhuada'-de'va, emperor of Canoge; and his family was plundered, as usual. His wife fled into the forests, or Vana, where she was delivered of a son, called, from that circumstance, VANA-bAJA

A holy man, called Saila-Deva, Deva-Saila or Deb-Sailim, happening to pass by, on his return, from Lijayini, to Ridhana-pura, in the northern parts of Gujrát, 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 Narwáreh or Narwáleh; and his friend Champa, a market man, says Abul-Fazil, and of the Bhil cast, (a very low tribe, according to leamed Pandits from Gujrát, ) built the town of Champa-nagara or Champa-nere.

The neat 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 Sanscrit, and vassal princes are thus debominated. Thus we read, that Prîrhwí-ra'ya had with him one hundred Samantas* or petty princes, commanding their own quota of troops. His name was probably DhíadiA-DEva, the immediate predecessor of Mula-ra'Ja in our list, but the fourth only in the Ayin-Acberi. He gave his daughter to Sri-Dhendhaca of the Solancí tribe, after whom the town of Dhundhaca, in Gujrít', is denominated.

King Jamund, in the Ayin-Acberi, is omitted in our list, prohably because it is a corruption from Samanta, and a title belonging to Mula-mása. In his time, Sultan Mahmed Ghaznevi conquered Guigrat'; and, in the year 1025, replaced, upon the

- Ayin-Acberi, vol. 2d, p. 118.
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 Vallabia in our list, Beyser and Bipla in various copies of the Ayin-Acberi*. Being a weak man, and blind, he reigned only six months, and was succeeded by the two sons of his brother, Durlabha and Bhíma'-rájá.

Then appeared the famous Visala-déva, with the title of Carna-Raje'ndra, that is to say, powerful and magnificent like Carn's, and lord paramount over many kings. He is said, in our list, to be a Chait'urá, that is, of the Chit'ura tribe, still extant in Gujrát' $\dagger$; and after which the famous place of Chaitur or Chaitor is denominated. He was therefore a native of Mewír, now called the Sircar or province of Chaitór. This induces me to believe, that he is the same with Vísala-deva, mentioned in the inscription upon the pillar of $\mathrm{FI}_{-}$ roze, at the hunting seat of the emperors near Dilli, and called Stambhacamandira in the appendix to the Agni-purána; that is to say, the palace with the pillar. There he is said to be king of 'Sacambhar', which is probably the town of Cambher or Cambhernere, in the province of Mewár. At all events, it was certainly in that country, as I shall shew hereafter. His father Vélea-déva was originally a petty king of that country, and his son Visaladeya 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 Ghazni, and drove the Mlech'-

[^45]has, or Musulmans, out of Aryávarta, or the land of virtue, thus making it, once more, what it signifies aecording to the inscription. Aryávarta includes all the north of India, from the snowy mountains, down to the Vindhyan 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 Sácambhari, 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 measures. He is mentioned also in the 'Sárngad'ha-ra-paddhati, written by 'Sa'rngad'hara, grandsobs of Raghu-de'va, spiritual guide of Ha'mmíra, king. of Mewár, or 'Sácambhari-désa, nearly in the same words with the inscription, which was written in the year of Vicramaditya 1220, answering either to 1164 or 1154 of Christ; for in that country they reckoned the era of Vicramaditya ten years earlier than in the eastern parts of India. He was succeeded by Jaya-sinha, called also Siddharaja, Siddha-raje's'a, and in the dialect of Gujarát, Siddha-rajés'saga-dé for Déva. It seems that Vis'ala-déva 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-sinha was, is unknown; but it seems that Cunhwar-pa'fa, a near relation of his, was the lawful heir; at least Abul-Fazis 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 Aja-paila, the son of Jaya-sinha.

- The next is Luc-mula-Ra'ya, mentioned in the Ayin-Acberi, but omitted in our list, unless he be the same with Bafu-mula, or Báluca-mula, called Birdmool in the English, and Hardohn in the

German translation. They are probably the same individual; for what is asserted of Luckatus in the Ayin-Acberi, is affirmed of his supposed successor in our list; namely, that after his death the nobles elected a prince of the Bhaggela tribe, called Bradmool in the Ayin-Acberi*, and Bhala-Bhima-deva in our list: the latter's name is split into two, and two princes made of them in the Ayin-Acberi, under the names of Bell-deo and Bhli-deo $\dagger$. Be this as it may, Lacmul-Raya, whose real name was Lac'han-mula-raya, or simply Lachan-raya, from the Sanscrit Lacshana-Raya, is well known to Eastern writers, under the name of LaghamRa'Ya' $\ddagger$. He was born of obscure parents, and raised himself by his own merit, and ultimately became emperor, or Bala-ráyá. 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 Mahmu'dBactyar Ghilis general of Sultan 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'Herbelot say that he effected the reduction of the country, yet Abul-Fazil says, that it was a mere incursion §.

The reigns of Siddha-Ra'jes'a, of his cousin Cunhwar-pala, and of Aja-pala, son of the former, are obviously too long; for they amount to

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\text { * Vol. 2, p. 91, } 95 . \quad+\text { Ayin-Acberi, Vol. 2d. p. } 95 .
$$

$\ddagger$ See D'Herbelot v. Lagham-ra'ya'. § AyinAcberi, Vol, 2d. p. 92. 75 years in the Ayin-Acberi, and to 113 in my list, which is hardly possible; and it is not unlikely that Lachan'raya was the prince, minister of VishalaDEva, mentioned in the inscription; for he was above 80 years old at the time of the invasion of Gujrát, by Mahmúd 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. Visalanéva was not a native of Gujrát; and though a Bala-ráyá, or losd paramount, he was not king of that country, but of the Mêwar, or 'Sácambhari; and, of course, his supremacy did not in the least interfere with the order of succession of the kings of Gujrát. He belonged to no dynasty, and reigned, as well as his prime minister, collaterally with Sid-DHa-raja and his relatives; and after the extinction of that family, Lac'han-rative was not only Bala-ráyá, but became also king of Gujrát', 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-rágúa was Carna the Gohilá, who fled into the Deccan, when Sultan-Allá-uddín conquered Gujrát. This happened, according to our list, in the year of Vicramadifya 1365, or A. D. 1309 .

At that time, the famous Ratna-sinha was king of the mountainous country of Méwar, and resided at Chaitór. He was descended from Khosru-Perviz, called also Nushirvi'n; and his amours with the beautiful Padma'vatí or Pedmańń, are the subject of a poem, both in Hindi and Persian. Her beauty was the innocent cause of a bloody war, be-
tween the Rája and Sultan-Alláuddín, which ended in the destruction of her lord, and his son-inlaw Rawul-Arsi, a Chauhán. Ha'miíra, 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 'Sácambhar' the metropolis of his little kingdom. Mewár is divided into three parts, Chaitor *, Cambher (or Cambher-nere for Cambhernagara) and Mandala (or Mandalica) built by king Mandailica of the Bhil tribe, and who lived about the year $796 \dagger$. Cambher is probably the same with Sacambhari, which was certainly situated in Mewár.

Sultan Muhammed K'hunt, or the murderer, gave the government of Chaitor, and Mewár, to Mála-deva, a Chauhán, and king of Jalór: but the latter was unable to reduce Hammíra, though he had defeated him, in a bloorly engagement, near the sea shore, according to the appendix to the Agni-purána. He then made peace with him, and gave him his daughter in marriage $\ddagger$; but, after his death, Hammíra murdered all his sons, and usurped the kingdom. This happened, according to the appendix to the Agni-purááa, in the year of Vicramáditya 1490, which is impossible; and we must read 1390, or A. D. 1334 ; for Sultan Muhammen 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, goverbor of Gááá, Jala'la, governor of Dilli, and a body of Yavanas (Turcomans or Mogols) commanded by Uluc'Ha'GA', perhaps for Ulughkhán, a title of honor sometimes

[^46]bestowed upon noblemen, by the emperors of India. In the English translation of the Ayin-Acberi, H'Mmíra is erroneously called Jemeer. The dynasty of the princes of Málwah was a collateral one with those of the Bala Ráyás, though it be placed between Nrịpati 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 Matwah 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 Múlava, Gardabha and his son Viciramáditya reappear; and, in the room of Surya-Siena, or S'ríSúryain'sa, we have S'áliva'hana; 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-ra'sa, 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, JA'LiYA', the name of a king, implies only that he was a J'A'íyA', or of the Jatim 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* It was in a country belonging to the Chauhán tribe, the chief of which generally resides at Alimohan $t$ : and it became the metropolis, when that tribe

[^47]usurped the rank and power of Bala-Ráyás. It is declared in our list, that the Chauhíns were, at some period, rulers of the whole country, as BalaRáyás; but our author has forgot to point out, in the list, the princes of that famous and ancient tribe.

In the fifth century, Tamra-nagara, or Cambút, was the metropolis of the Bata-rayás; 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-inlaw of Gardabha, or Bahram-Gúr, called Sadás'va, Sadas'va-pála, Vesudha and Ta'mrasen'A, from his metropolis, Tamra-nagara, or Tamra-pura, signifying the Copper city, which is supposed, accordingly, to have been intirely built of that metal. It was near Cambát ; but tradition says that it was swallowed up by the sea; and Cambát was a famous place of worship, called, in the Puránias, Stambhast'ha-T'it'ha* from a Stambha or column, close to the sacred pool. Now, a column is called Camba in the spoken dialects; and from. Cambasta, is derived its present name of Cámbát: Stambhast'ha and Tamrapura are called Asta and Traperá, by the author of the Periplus; but ProLemy, considering these two places as one only, for they were close to each other, calls it Astacampra or Astacapra; and instead of Tämra, which signifies copper, he writes Campra or Capra. The reason why he has carried this place so far inland, on the banks of the Mahí, 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 $t$.

* Cumáricá C’handa.
+ Cola signifies only a Creetos

Osorto, a Portugueze writer, says, that when Francis D'Almeida landed, near Cambat, 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 Cambút, but at a place called Cavi or Cavi-gauzw, to the south of Cambat, 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 Sanscrit name is Capilagram, from which is derived its present one.

The promontory of Asta-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 Pápicá, 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, Bhaucí-derá, Bhauki-derá, Bhaui, or Bhávicáaderá, that is to say, the house or dwelling place of Bhau or Bhaur, an ancient hero of that country, who built the town of Bhau-nagara, or Bhavi-gazw, and probably the same with Bhau-ki 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 Bhaui, or Bhau-nagara, on the river Bhaui, 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-nesos, or the island of Bhau or Bhazi.

This place, says our author, is difficult of access, ot 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 government, according to Abul-Fazil, who calls it Birum *. Opposite to Bhávi-gazte, 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 Cammoni or Camané. This reach is the sea coast between the Narmadá and the Jambusser river. My Pandit observes, that the country between these two rivers, and along the sea coast, is called to this day Camum ; 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 Araniya, which signifies a thick, but not impervious forest.

Ptolemy has confounded the points of Swalley, Diut 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 Weylanoo in Major Rennell's map, from which Balaion or Valaion seems to be a corruption. The island called by him Baraké is Dwáraca, as obvious from its relative position; and Baraké may be only a mistake for Dwáracá. Besides, these two denominations 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,

[^48] though improperly, for the door itself. It is used in that sense only in the west of India; yet the werb derived from it, barna, in the infinitive, and bar in the imperative mood, is used all over India, except in the peninsula. Twasht'a', the chief engineer of the gods, having built a palace there, for Ran'achurjí or Crǐshna, (that is he who fled from the field of battle,) and Tricumaí 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 Dwára-chánh? where is the door? and others bawling out Bhárco-col, open the door; hence the place was ever since denominated Dwáracá; and this ridiculous etymology is countenanced in the Puránias.

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 Narmadá, with which it is made to communicate, through a short canal ; and then afterwards to fall into the gulf of Cántha, or Cach'ha. We were guilty of as gross an error, two centuries ago; for we made the Indus to fall into the gulf of Cambát. The Makt is a celebrated river, and the daughter of the earth (Mahi,) and of the sweat (ushna,) 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 Ushnmahí and Ushmahi, and is probably the Axuamis or Auxomais mentioned by Prolemy. The author of the Periplus* says, that
at the mouth of the Narmada, they used boats, which they called Trappaga and Cotymba; and we read in the Ayin-Acberi, that in Gujar at' the cargoes of ships are put into small vessels, called Tahwery, and thus carried ashore*. My Pandit informs me, that the true pronunciation is Táberi, and in a derivative form Tabericá, 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 Sangará, (from the Sanscrit Sangraha an assemblage; ) but in Gujarát' they are called Júrá, from their being coupled together. The king of the country about Calyán and Bombay was called Saraganes; but the true Hindu name was Saranga, or Sarange'sa. He was very friendly to the Greeks: but, his kingdom having been conquered by Sandanis, they were no longer allowed to trade there $\dagger$. He was king of Aviaké, the country of the Argyás; who were foreigners, according to the Brahmánda-purária t, and were denominated Sadinor, according to Ptolemy, from the Sanscrit Sádhana, lords and masters. Thus, the Portugueze were, and are even to this day, styled, in Bengal, Thácurs. The English, in the spoken dialects, are called Sáheb-logs; but, by learned men, Sadhana Engriz; and all these denominations signify the lords and masters. Thus, the famous Bнósa is generally styled, in the west, Sa'dhana, or Sa't) hana Bhóa. Such probably is the origin of the name of Sandanes, king of the Sadinoi, or Sádhanésa. I shall speak more fully, in the next essay, of these 'Aryyas, in whose country was a famous and great was its fame in ancient times; but my inquiries concerning it have hitherto proved fruitless.

In the eighth century, Yana-ra'sa built Narwaleh; and his friend Champa built also the famous town of Champí-nere. In the tenth century, according to Masoudi, Manhazwer became again the metropolis of the Bala-rayás; but in the latter end of the eleventh, and in the beginning of the twelfth centuries, they returned to Narwáleh or Narwáreh; and in the year 1022, Sultan Mahmud passed through it, and was much delighted with its situation. The princes of Málwa resided at first at Ujjayiní, but Munsa transferred the seat of Empire to Sonitpura in the Dekihin, according to the appendix to the Agni-purána, and now called, after him, Munja-pattana. It is situated on the banks of the Gódaceer'; but whether it be the same with Pattana, or Pratishtán'a, where 'Sáliva'hana 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 Siri-Polematos, the nearest denomination to which, in Hindi, is 'Srí-Puloma', or 'Srí-Pulima'na. 'Sonitpura 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-Acberi*. The old city of Benares, north of the river Burn'á, 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 lexi-
cons, 'As'árapura, 'As'ára-gř̌ha or 'As'ára-gur; which is probably the town called Zerogere or Xerogeri by Prolifiy. Bammogara, mentioned by the same author, is probably Bamun-gawe, or Bamun-gur, on the northern bank of the Narmada, about thirty miles S. W. of Mandow, and noticed in a route from Sultanpoor, on the Tapti, to ITjayini.

The immediate predecessor of VANA-ra'Ja, at least in the corrected list, is styled Nry-pati, the lord of men, or the emperor; but there was an interregnum; for there were, at that time, neither Bála-Ráyás nor emperors in Gujarat't; and the whole country was subject to the emperors of Canoge; for Vana-ra'ja' seized upon the royal treasure, on its way from Gujarát to that metropolis.

In these lists, and also in those from the Puránius, 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 Chauhúna, Chazed a and Gohíla tribes." Drs'aca, the first emperor was a Yádava, or from the Yadu tribe. After the eleventh king, called DA'нima', " then will appear the following tribes, the Cshâlás, Macwóñas, Hun'as, Bhounas;" all names in a plural form: and these tribes, except the Hunás, belong to Gujarát, 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 Nicumbina, the Jáliá," or of the Jálim tribe. "His successor was Tháca; when the Chhärui-vi-haláa appeared:" in some copies we read "Ch'háruada-vi-
hahhe, and the first part is to be pronounced nearly Cliháruara, answering to the Persian Chár-é-aur, or the four associates.
The third table contains Raghu-na'tha's list, as current in the eastern parts of India. It begins with the Cali-yuga, or rather with the Mahâ-Bhárata, or great war: but I have omitted the first part, prior to the times of Maha'-Balf, as it has not the least affinity with the lists from the Purána's, and throws no light on that part of the ancient history of India, $M_{A H A^{\prime}-b a l i}$, according to the present list, reigned forty years and eight months; which is conformable to the Purana's, in which he is said to have reigned 40 years, including the 12 years, during which his sons, the Sumályádicas, reigned together, and which are generally ascribed to him. From the first of his accession, to the first year of Vicrama'ditya's era, the present list allows 298 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 Maha'bali was Chandra-gupta, or Chandra-pa'la, fostered or concealed by LuNUs; and who lies here concealed under the name of Ambitc-pa'la, for Lunus is but a mess of Amrǐt, which Chandragupta 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 Cumáricá-c'handa, 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 Vicrama'ditya; and here is the most material difference, between the various copies of the Vansávali: for in those current in the west, instead of Sudraca, we read Vicramáditya, whose predecessor was Bhar-trì-hari, or Sacwant and Samudrapa'la his successor.

From the first year of Sudraca, to the first of Vicramaditya the son of Bahram-Gur, there are 343 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 Vicramáditya, to Mahabhat and the first of the Hejra, there elapsed 196 years; which is about 16 years too many. From this period, to Déva-Dhárá-sinha or Вhója, 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 Bhója, in the year 9\%0. From Bhója to Trai-Lócya-paila, or Jaya-chandra, 192 years. 'Súdraca, 'Suraca, called also Aditya, 'Srí-Carn'aDeva and Srí-Carn'a-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 Pragyotisha, in Assam; and to whom Ca'neva' the black, or Crishna, restored the kingdom, after he bad killed his father.

In that list, he is supposed to have lived 1367 years after the Mahá-Bhárata; which will place him about the beginning of the Christian era; but, according to the Jainas, who place the beginning of the Call-Yuga about 1000 years B. C. this will make his reign coincide nearly with the period assigned to it by the Paurañics.

The last king of Bengal was Lacshmantiah, who was deprived of his kingdom by Muhammed Bakthyar, the general of Cotub-uddin, about the year 1207; for, in 1209 the same general was in Gujarát', and the emperor died also in that year. From the first of Sri-Carn'a-De'va, or Sudraca, to 1207, there elapsed 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 Pala, which every one of them added to his own name or title. The first of that dynasty was Bhu'-pala, who was still alive in the year of Vicramáditya 1083, answering to the year of Christ, either 1017, or 1027. Bhu'palda had two sons, Sthíra-pala and Vasanta-paila, who erected a singular, and at the same time sumptuous monument, in honor of Budd'ha, at a place called Sarnáth, near Benares. This was in the year of Vicrama'ditya 1083, as recorded in an inscription found there some years ago, and inserted in the fifth volume of the Asiatic 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 arclres and vaults of the greatest part of the buildings which are now buried under ground, still retain the supports of sundried bricks, over which the arches were turned. In the year 1017 Sultan Mahmud took Benares, and the town of Casam, or Cusuma, now Patna, and went even as far as the country of Ouganam, or Unga, to the west of the Cossim-bazar river. The next year, he overrun again these countries, and penetrated
as far as Kisraje, or Cachha-Raja, in the northern parts of Bengal, called Koge by Ferishta, and Couche by European travellers of the 15th and 16th centuries, (such as R. Fitch:) and Cug or Coos-Behar 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 Buddhas'ENA, an epithet which implies that this king, whosoever 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 Chirist 1027, on 1017; because formerly the cra of Vicramáditya 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 RájaTarangin'. 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 'Sa'liva'hana 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 carly period, to be equal to as many solap
years*: 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 Vicramáditya 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 Bhar trïhari, or rather teferred to his time; and which was said to have been the length of his reign.

In that case, the demolition of the momument, 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 Musulmans. Monud's invasion, in 1043, was directed toward the south; and in that direction only, he penetrated further than Mahmud, as recorded in history.

King Binu'pála is called also Mami-pa'la, in this inscription; but these two epithets are synonymous, and signify he who fosters the earth, or world. Sthírapa'la, called Dhír-pa'la in the Ayin-Acberi, had a son. called Deb-pa'la, or déva-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 Buddál. His father was Dharma-pa'la, which probably was the title given to him, when he succeeded his father Bhu'pa'la, called Gó-pa'la in the grant. The Hindus always have two names, one of them answering to our Christian names, and used in the

[^49]206 ESSAY ON
performance 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 Bho'ráta and and Mahípaila. The son of Srí-Déva-pa'la was Ra'ja-pa'la, perfectly synonymous with Bhu'patipa'la, as he is called in the Ayin-Acberi; for all Rájas are equally denominated Bhí-pati.

As the Hunás or Huns, are mentioned in the inscription at Buddál, Srí-Déva-pa'la 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, Ballih 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 Abtelis, Abtelites or Enthalites. It is the opinion of several well informed men, from Cabul. and the adjacent countries, that the Abdális existed, as a nation or tribe, long before Muhamand; and that the demomination of Abdáli is not derived from the Perslan word Abdál, the servant of God. In that case, they may be a remnant of the Abtalis, or Abtelites. It was about that time, that the dynasty of the Huncis in India began, and which is recorded by the Pauránics. There were thirteen kings of them, and eleven more under the name of Mauras, 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 Maun'a is a contraction from Mac'hreán'a or Mahá-Hurias; for, in the west of India, they say Maga, and write

Macha, for Mahá; and instead of Munammed, they say, Mac'homat and Mac'hobhat, as we used to do formerly in the west*. The Macwann'is are noticed in the Gujarat list, and also in the lists from the Purinias, 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 Renaudpt, in the ninth century, remark, that the Hindus did not, like the Arabs, use a general era, but reckoned the years from the accession or 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, Vicrama'ditya's era was considered as Sace for the space of 135 years, and himself was then a Sac-wanta: but his era is now Samvatsara, or Samrat, and himselfonly a Samvatica; and the present 'Sacwanta, or 'Saca, is 'Sa'liva'hana. The Pandits, who assisted Abul-Fazie, took particular notice of that circumstance, and carefully pointed it out to him $\dagger$. As the date in the Monghir grant is within the 135 years, during which the era of Vickamaditya was Saca, it should have been styled thus, and not Samvat: and hence it may be concludel, that the date has no connexion with that era.

[^50]The reason, why the famous 'Srí-De'va-Pa'ta is not mentioned in the lists from the Puran'us, is, that he lived in ton 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 Mahábhárat, or great war, in 1192, when all the heroes of India fell in the plains of Thán'u-Sar. During that period, Srí-Deva-Paila might humble those of Dravira and Gurjarát' (that is to say the Bala-ráyás), and the Hunas in the Panjal; 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 through the Vindhyan hills, to the west of the Jumna, and then went into the Punjab, as far as the borders of the kingdom of Camboja or Ghazni. The time in which this expedition took place, cannot be ascertained, but within certain limits. After Modud's invasion, in the year 1043, the Hindus recovered some strength and courage, under the weak reigns of Togrui the usurper, and Furruek-Za'd. 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 'Srí-Deva-pa'la took place between the years 1052 and 1059 , during the weak reign of Furruck$\mathrm{ZA}^{\prime} \mathrm{D}$, of whom nothing is recorded.

The list of the kings of Bengal, in the AyinAcberi, was formed by Jainas, who place the beginning of the Cali-yuga only 1078 B. C. but it was afterwards altered by the followers of Brahma, and the beginning of it placed $3100 \mathrm{~B} . \mathrm{C}$. and the reigns of every king prodigiously lengthened, in order to make the whole coincide with the first year of the Cali-yuga. The Rajás of Sirinagur pretend to be descended from.

Bhaga-datta, contemporary with Crishna; but in their pedigree, communicated by the present king, to Captain Hardwicke, in the year 1796, it is acknowledged that for the space of 900 years after Bhaga-datea, nothing is recorded of his successors, not even their names*. 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 Bhúpati-pa'la, or Ra'ja-pa'la. His successor's name is Jayadraca, called Crǐshna in the Purán'as, 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 Vansá-oali, 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.


* Asiatic Researches, Vol. 6. p. 338.

Vol. IX.

| To Nrí-sinha, | - | - | - | 497 | 0 |
| :--- | :--- | :--- | :--- | :--- | :--- |

In this list, Mitra-sinha is meant for Jina, and Nhì-sinha for Gautama; and Yudhishtihir 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 'Saca was born 1207 years* B. C. or 12 years after the Cali-yuga and Crishnat. 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 1036. Others, admitting the same era, say, that he was born in the year 1036, and died A. D. 950; and thus, whether he lived 957 or 77 years, his death equally happened in the same year before Christ.

The next is Nri-sinha or Gautama: Nrí-sinha is a well known title of 'Sa'liva'hana, and in the Gujarat list I mentioned before, 'Sáliva'hana is introduced in the solar line, in the room of Sugata or Gautama. This explains a passage from the

[^51]+ Asiatic Researches, Vol. 2d. p. 122 and 15.

Varaha-sanhita, in which it is said, that 'Sa'liva'hana, or 'Saca, the ruler of the period denominated after him, appeared when 2526 years of the era of Yudhishtihira 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 Brahma', claim Sa'liva'hana as their own, and suppose that he manifested himself several times to the world; and as there are several Vicramádityas, there are, of course, several worthies of the name of 'Sa'liva'hana.

Vrìja-pa'la, or Briya-wa'la, is the famous Ma-нa'-bale: for the kings of Magadha were thus called, as I observed in my essay on Amu-Gangam; and this title was distorted into Birdwal and Berdaul by Musulman writers. He is placed, erroneously, a little before the era, of Vicramaiditya, by the compiler, for reasons which will appear immediately.

From this famous emperor, he passes to SADA'Tpa'la, or Sada's'va-pa'la, father-in-law of BahrameGur, and who gave him his daughter in marriage, about the year 426 ; thus passing over the dynasties of Sudraca and 'Sa'liva'hana. The last dynasty, which he supposes to have lasted 500 years, our compiler has transported and brought down as low as the invasion of Timur, in the year 1398. This famous conqueror is generally called Thaur-lenk, by Hindus, in their Chronological lists, and also in an inscription near Bijigur.

This account of 'Sa'liva'hana's dynasty at Dilli, and at so late a period, however strange, is not entirely groundless. Tieffenthaler, in his account of Subah Dilli, 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 Tomára and Chohan tribes at Dilli, has certainly much affinity with those in the Ayin-Acberi*: and the Kholassey-ul-Towáric 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 Bhats, or Bhattics, who live between Díli and the Panjáb, insist that they are descended from a certain king, called 'Sa'liva'hana, who had three sons Bhat, Maya, or Moye, and Thaimáz, or Tha'ma'z. Moye settled at Pattyáleh, and either was a Thánooí or Thawoni, or had a son thus called. When Amir-Timur invaded India, he found, at Toglocpoor, to the N. W. of Dílli, a tribe called Soloun or Salwan, who were Thanovis or Manicheans; and these he ordered to be massacred, and their town to be burned $\dagger$. 'Sa'líva'hana is generally pronounced Salman and Salban in the west, and Niebuhr calls him Shah-Lewan.

The Manicheans were Christians; and when FAther Monserrat was at Dílli, at the court of Acbar, he was informed, that near that metropolis, and to the S. W. of it, and of course at Togloclabad, near the palace of Pithaura', the usual residence of the ancient kings of that city, there were certain tombs, which were asserted to be those of some ancient princes of Dilli, who were Christians, and lived a little before the invasion of the Musulmans. If these tombs really existed, they did not belong to Hindus, who never erect any : they could hardly

[^52] 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 basso 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*. The foregoing particulars, concerning the Bhats, 'Sa'liva'hana 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 Bhats. 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 kngw very little about 'SA'LIVA'hana, 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 Bhats, was merely accidental, and by no means in consequence of any previous directions from me.

- P. 164.

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 Caggar. The Mesopotamia here mentioned by Archelaus the Bishop, is the five Antarvédis, or Mesopotamias of the Panjál, commonly called the five Bhéds or Bhedies; and Strabu, speaking of the Bhéd or Antaroédi, between the Chináb and the Jellam, says, "in this Mesopotamia," and here the pronoun this has an obvious reference to the several Bheds 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 St'hannu-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*. There were Bhats 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. Bhatnere is the vulgar pronunciation of it; but the present town of Bhatnere 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 Bhattyalch. The other place noticed by Ptolemy is Batan-cai-sara, a compound name; and in the true idiom of the Hindí

[^53]language, Bhatton-ki-sara, or Bhatton-ca-sara, the pool of the Bhats. Bhatton is the plural form from Bhat, and lii or ca the mark of the possessive case; and sara is a pool or lake. Bhatton-ca-sara is according to the idiom of the dialect about Dill ; but at Lahore, and in the Panjàb, they would say Bhatt-yan-da-sara; for as they say there Bhatti for Bhat, the plural form is then Bhattyanh with a nasal n, and $d a$ or $d i$ are the usual marks of the possessive case with them. Bhattyan-da, is als. 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 Bhattinda, to the N. N. E. of Bhat-nere. The Bhattis are shepherds, and various tribes of them are found in the Panjàb; and they also inhabit the high grounds to the east of the Indus, from the sea to Uch. These tribes are called Ashambhetty in the Ayin-Acberi; but several well informed men, who had long resided in that country, say that the true pronunciation is AcshamBhatti: which implies the many troops or bands of the Bhattis; because they go by troops selected from various tribes or families.

Manes gave himself out as the Christ, and had also twelve disciples; and, in the character of Christ, he became 'Sa'liva'hana in India. He had three disciples exalted above the rest, and their names were Budda or Addas, Hermas or Hermias, and Thomas; which I conceive to be the same with Bhat, Maya or Moye, and Thaimáz or Tha'maz', the supposed sons, or rather disciples, of 'Sa'liva'hana. 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 $D_{r .}$. 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 centary. He was succeeded by his disciple, called Terebinthus, who went into Palestine; but was obliged to fly to Persia, where he declared he was another Budda or Buddha, 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 Buthem, in Chaldaic, signify a Terebinth in general ; but the largest and best sort is called, in the former language, Daru-botam, which may possibly have some affinity with the Buddhamgach'h, or Buddham-Teru of the Ceylanese and BaudDHAS in general, and which signifies the tree of Buddha, for Gachh in the spoken dialects, and Teru or Dru, in Sanscrit, signify a tree. For he said, when he entered upon his mission, Se non jam Terebinthum sed alium Buddam cocari, that he was no longer Terebinthus, but another Buddha*. The Terebinth is unknown in India, except beyond the Indus, where I am toid that there are forests, of that sort which produce the Pistachium, or Pistachio, called Pistá, in that country, and all over India.

[^54]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 Bráhmen: 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 Budda or Budphina, 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, whe, 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 regenesated in him; that he was the Paraciete, 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 Lhahédac, or Lhah-dac as suspected by Father Cassiano. This Sergrus, a Manichean, appeared in the character
of Christ, and of the Paraclete; and was in Indid; and at Lhád-dac, in the ninth century, towards the latter end of which there appeared another 'Sa'biva'hana, in the country about Dill', (according to the list brought from Assam, by the late Dr. Wade): Deguignes shows, that Mases propagated his doctrine in Tartary, where he was revered as a god. In the country of C'hegil, 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 Erteng; 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 $\mathrm{MA}^{\prime}$ -ni-ra'ma, Níla-Ma'ni, \&c. It was the general opinion formerly, that Manes was a Hindu, and his father a Bráhmen. He was also called Cubricus. Cubri in Hindí 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 Patekius, and Pát'haca, 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-Cangam, 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 Vindhyan mountains, according to the Pauránicas. The İcshwácavas, or children of Icshzoácu, who ruled in the countries watered by the Indus; and this dynasty consisted of 24 generations. The Abhíras, or Shepherds, in the upper parts of the Indus, ten generations or reigns: then the 'Sacas, under ten kings, and probably kings of Persia. Then came eight Yavana kings, or Greeks of Bactriana; and fourteen Tusháranias, or from Turán; and these belonged probably to the Parthian dynasty. Then came seven Garddabhinas, thirteen Morun'das, or Burun'das, as many Hun'a kings, and eleven Maun'as. Many suppose the Morundas and Maun'as 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 Garddabhinas are the descendants of Garddabha, 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 settled in the Panjáb, in the seventh century. The Vindhya-Sacti is a collateral dynasty, descended from Kosru-Perviz, and which began between the years 820 and 830. Their metropolis was Udayapura, and the Pauránicas have recorded the names of seven of them, who reigned all together 90 years. The Morunde of Ptolemy are the same with the Morunda; Burunda, or Burun't'a of the Puránas. They are only mentioned once, in the prophetic chapters; and are supposed, by some Pandits, 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 Cosa, or Coosy, including North-Behar and the province of Oude. 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 Maraunthes *. The country which they possessed constituted afterwards what was called the country of Canoge, denominated also the kingdom of Bourou, by the earlier Musulman 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 Porout by Deguignes, and which seems to have been the ancient name of Tibot, or Tibet, called also Barantal, in a derivative form, as Bengal from Beng. Its metropolis is called Lassa, Barantala and Putala. Putala, Bootion and Tibot seem to be derived from Buddha, called, in that country, But, Put, Bot and Рот. The natives of that country understand, by Bootan the kingdom of Lassa, and by Tibot the regions to the westward, toward the source of the Ganges; and this was, it seems, the country of Porout; and the idea seems to be confirmed by Deguignes $\dagger$. The kingdom of Tibot, according to Chinese writers, extended as far as the country of the Brahmens, in the year $589 \ddagger$; and in the year 649 , the king of Tibot 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, in an essay, both geographical and historical, on such parts of India as were

[^55] 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 'Sa'liva'hana. 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 Musulmans; 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 Chandoressey, in Rohilcund: but, at a much more ancient and unknown period, they crossed the Ganges, and settled in the district of Buddhaown, and there built a fort, called, after their supposed grand-sire, Cóte-Sálióóhana, or 'Salbáhan, the fort of 'Sa'liva'hana, and which is mentioned in the Ayin-Acberi*; 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 'Sa'liva'hana, in the Purganah of Baisyawárá, about three days journey from Lucknow, and in the district of Khairabad.

These call themselves Vais'yas, or Baisyas, and also the Vais'yas of 'Sad'iva'hana, 'Saca-Rája-vansas and 'Saca-Raja-cumáras, that is to say, the royal

[^56]offspring of Saca or 'Sa'liva'hana. All the members of this tribe insist, that their chief is really an incarnation of Vishnu, in the character of 'Saca or 'Sa'liva'hana, 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, Saca-vansas or 'Saca-Rája-vansas, which signify, and are understood in that country, to signify, the offspring of 'SAcA, or king Saca or Sa'Liva'bana; and in the east, and also in the west, the followers of a deity, or some legislator and institutor, are often called his offspring*. It is but lately that I have been acquainted with this singular tribe of Rája-Cumáras, 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.

- Asiatic Researches, Vol. 8. p. 507.


## APPENDIX TO ESSAY IV.

1. 

PTOLEMY places Ujjayiní 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 Uijayinit and the sea, stand thus. From the mouth of the Mahi, to its supposed communication with the Narmadá, 60 G. M. to Tiágura 50: to Mimagara 50: to Zerogere, now Dhár or 'As'ára-gur, 55: and to Ujjayiní 40. The two last towns are erroneously placed by him, on the banks of the Narmadá, 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 Narmadá, or some other river mistaken for the Narmadá. Tiágur is certainly a true Hindí 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 Pazea-gur, to the south of the river D'hádhara, mistaken by Ptolemy for the Narmadá; 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 Narmadá. Thus - Payagurra was said to be in the tiram of the Narmadá, which is very true; and to the eastward of a river that runs by it. The D'hádhara river runs afterwards very near to the Mahi, in the vicinity of Brodra; and there might have been formerly 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 Ptoxemy on the Narmadá, I strongly suspect to be out of its place, and to have been originally meant for Nasica or Nassuck, near the source of the Godicoeri, and to the N. E. of Bombay. It is also my opinion, that the Sardonyx mountains are misplaced by Profemy: 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 Narmadá and the river Maht, where to this day they dig for precious stones. In consequence of this erroneous construction, the rivers Paddar, Sábhra-mátí, and Mah' are confounded, and the whole peninsuka of Gujarát 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 Diou*: its inhabitants were called Diveri, Dibeni and Diveni; and it appears that this denomination extended to the whole peninsula. In the same manner, the Musulmans gave formerly the name of Soma-natha, to Gujarat', 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

[^57]we rear in Strabo, that Mevander conquered not only Patalene, but also the country of Sigertis, and the kingdom of Tessariostus, there is a strong presumption, that these countries were contiguous to each other. Patalene is well known; and Sigertis is from the Hindi Seher-des', the country of Seher, or Sehr, mentioned in the Ayin-Acberi, where it is called Seerce, and its Rája Sehris, and by others Sihar*. 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 $U c h h \dagger$.

I have met lately with respectable and well informed men $\ddagger$, 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 Lehereh, and its inhabitants Leheraíz or Lehráí. In the same manner the country to the eastward of the Indus, is called Sehr, Sehereh; and its inhabitants Sehrái or Seherái. These two denominations might be written Lehráhi and Sehráa$h i$; but the letter $\stackrel{H}{H}$ is not to be sounded, and serves only to separate the two vowels.

The country of Lehreh or Lehereh, is called Nedheh or Nedeheh by Ebn-Haucal §, and Nodha by ElEdrissi. The town of Lehrroun 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-woun or Nehrun, Nirun by El-

[^58]§See Major Ouseley's translation.
Vol. IX.

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 Nehrioun, from its capital in former times, is called Nehrwou or Behrwou, in the Ayin-Acberi; 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 Pergumnahs separate in the printed copy *, there is in the original Nehroun-na-Chand, the districts of Nehroun, and Chand. The latter is called Chandu of Bacar by Abul-Fazil in another place $\dagger$, and Sandur by ElEdrissi. The famous port of Lehri or Lehráhibunder is thus called, because it is in the country of Lehreh; whilst another port, on the eastern branch, is denominated, from a similar circumstance, Sehri, or Sehráhi-bunder. It is called Seuheri 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 Bustah-bunder. This salt water lake or bay, (for its entrance is pretty broad,) was by the Grechs called Saronis $\ddagger$, and Eirinos, probably for Seirinos, from Sehrwun or Sehrun in a derivative form, as Lehruin from Lehr or Lehreh. It is called Eirinos by Arrian in his Periplus of the Erythrean Sea; and he says that it is hardly discernable 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 Hindu name of which is Mudán, wherein the letter D has a mixt sound between

[^59]D and R , and signifies a head land ${ }^{*}$. The entrance is said to be about two cos broad, or three miles and a half. From Bustah-bunder, to Abadd, in a N. W; direction, they reckon twelve ens. It is upon the western bank of the main branch of the Indus, and is called Hábáth in the history of Mahmood the son of Sebecteghin, and erroneously Ebját by Abul-feda, who calls it also Mow, which in Hindi 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 Dishád, through an arm of the river; and the point of separation is near a place called Poc'hyári, 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 Bustah-bunder, and the other to the east is very small. East of it is a small place called Lac-putbunder in Cach'ha, which owes its origin to king Lac-pati, the grandfather of the present Raja of Cach'ha. These two openings answer to two inlets, hoticed 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 resorted to by the pirates of the Warrel tribe.

Pilgrims, after having worshipped at Dieárca, be-

[^60]tween Bate and point Jigat, cross the galf of Cach'$h a$, land at a place called Masca-Muidai, 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 Massada in old maps; and Masca seems to be the place called Assarpoor in modern maps. From thence, to that large branch of the Indus, called Bányáni, or Aurunga-bunder, 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 Masca-Midai is a small river, supposed by some to be an arm of the Indus, which branches out above Sehwan. They then proceed to Lacput-bunder, and cross a small arm of the sea; and then, in their way to Bustah, they cross in a boat the mouth of the salt water lake, and proceed to Ghèdá or Ghaindá, about a mile from the sea, and on the eastern bank of the Bányáni, which they consider as the main stream of the Indus, called Meran in the dialect of Cach'ha. Ghédá or Ghaindá, may be pronounced Gherá and Ghainrá. It is a sacred spot, but there is no place of worship dedicated to Cotísiwara-Mahádedva, or with tea millions of Phall. The Musulmans worship there the tomb of a saint of their own; and from this place, the branch of the Indus is also called Gherá or Ghorá. Then they go to Shah-bunder, either by the way of Abád, or Pokyári: and as Shah-bunder is now the seat of government, Hindu pilgrims in general call it Thathá.

They all insist, that, between Masca-Mudai and Ghaindáa, 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 con-
siderably 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, Jhau on the banks of the Ganges, and Ghezz in Persian, 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 *.

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 Asá, from a place of worship, or rather consecrated spot, of that name. The second, called Lac-put, or Polyári, and Puckar, in a map by Major Rennelle. The third, Bustah-bunder, answering to Warrel. The fourth, Bányáni, Ghaindá or Goráh. Kaar is the fifth: then follows the Jumna, which is the Hiijámány of Major Rennell. The seventh is Rishád, or Dishád, called also Divel. The eighth is the Jowd, 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 Cráchi, and which, they say, falls either into that harbour, or into the sea very near it. According to Father Monserrat, who wrote above

[^61]200 years ago, it falls into the harbour *. Through this branch, not now navigable, Nearchus's fleet sailed. Its entrance was obstructed by a bar, on which the sea broke with violence. They cut through it, and entered the harbour of Corestis, which is a corruption from Cáráchi, Cráchi or Cranchi. It is more generally called Rámbagh. 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 Renneli, but none with his last.

When the Greeks sailed 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 Cach'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 $\uparrow$. The Musulmans, bolder, crossed from the western mouth of the Indus, to an island called Avicama, which is a corruption for Auca-mandal, a district near Dwáraca $\ddagger$.

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-ráshtra or Surásht, but now Gurj-jara-Ráshtra, or the kingdom of the Gurijaras. This compound is pronounced Gurijar-Räsht'ra, Gurija-Ráshtra, Gárja-rasht, and more generally Guj-raisht and Guj-rat'. This is the kingdom of Tessariostus, conquered by Menander, according

[^62]to Strabo. Renaudot's two Musulman travellers, in the ninth century, take notice of the country of Haraz, or Geraz, called in the original MSS. Giourz, or Gourz ; for they used to write, formerly, Gieuzerat 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 Muhammed, and he was, at that time, at war with the Bala-Ráya. The Hindi name of the Peninsula is Gurjara, and Gurjar-Ráshtra signifies the kingdom of Gurjara. The whole country, from the Indus to Dáman, is called Su-Rásht'ra, its inhabitants Su-Rásht'rán, from which Prolemy has made Syrastrene, which is now pronounced Soret and Surít. Its metropolis, at a remote period, was the ancient city of Teja, in Cach'h, noticed in Major Rennell's map. Tradition says, that it was founded by an ancient king, called TéJa, or Teja-carn'a. There were three brothers descended from Icshwacu,-Puru, Buj, or Bos, and Teja: the two first are noticed in the Puran'as, in the prophetic chapters, where Puru is generally called Puru-Cach'ha, and the other Buja-Cachina.

The Rájás of Cacliha 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-rásht. 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 *. Plutarch $\dagger$ says, that the

[^63]Hyphasis, or Beyah, falls into this lake or bay, and thence into the sea. Philostratus, in his life of Apollonius, asserts, 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 Jumná and Saresvati; 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 Jumná, called in Bengal, Jubuná, goes to the left, and falls into the sea, in the bay or river of Roymungul. The waters of each river may easily be known; for those of the Jumná are of an azure colour; those of the Saresvatí white; whilst those of the Gangá have a muddy, or yellowish tinge. These appearances, which are owing to various circumstances, such as the depth of the river iw 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. Pattalé, Pattalené, called also Pathalia, seems to derive its name from a famous place of worship, dedicated to a form of the deity, with the title of Pat'há, which, in Hindi, signifies youthful: and from Pathá comes Pathála, as Bengálá from Renga. It is one day's march to the south of That'há, and two to the north of Shahbunder; 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-Pathá, 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 Brah-
minabad, called also Mánhárwar (and Máhaurá, by Persian authors). Bacar is also called Mánházar: but its true name is Bánhawár, the Binnagara of Ptolemy, and the same, I believe, which is called Panooura, by Stephanus, of Byzantium, and Báhaurá, or Bahur, by Persian authors *; situated in lat. $27^{\circ} 47^{\prime}$, as the lower Mansurá is in lat. $24^{\circ} 0^{\prime}$ North. It was afterward called Mansura, which is also the name of another city, lower down the Indus, one day's march from Mánhawár, 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 Thathá.

## II.

ITT is asserted in India, that the Máhrátás are foreigners; and this they themselves acknowledge. The Ránas of Udaya-pura, and their tribe, who are related to the Máhrátás, boast of it; and say, that they are descended from Nushírván. 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 Musulmans, and their persecuting spirit, cannot be doubted; but the emigration of the children of Nushírvan is the most ancient. Some of these emigrants retained their ancient religion, and are called Parsis ; others turned Hindus, and are called Ránas and Máhrátás. Some afterwards adopted the religion of Muhammed, and are called in the Peninsula Nevetehs, new men or converts. Though they all agree that they came from Persia, and are the descendants of Nushirvann, yet there

[^64]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 Nushírya'n ; 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 Muhammed, we may infer that they are descendants of KhosruPerviz, who was also sirnamed Nushírva'n. This last was the grandson of the great or first Nushínva'n ; 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 Nushírvan. 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-kha'n, first magistrate of Benares; and who, about twenty-five 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 RA'NA of Udaya-pur is noticed by Dr. Hunter*, and the origin of the Peshwás from those princes, and, of course, from Nushírva'n, 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.

[^65]The origin of the Máhrátás is also noticed in the Scanda-purana, in the section of the Sahyádri, or mountains of Sahya, for thus the ghats are denominated in Sanscrit, and Sáhyân or Sakyân, on the Malabar coast. Unfortunately the second part of this section, in which the origin of the Máhrátás 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 Máhqátás 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 Mlech'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 Yezdesird; and the last, yhen 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 Ald-I brahim-

KHAN. According to some, a prince of the royal family, 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 Cambát. This prince was a son of Nushirva'in; 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*. 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, $A_{b u-B e c r ' s ~ c o n q u e s t s ~ n e v e r ~ r e a c h e d ~ b e y o n d ~}^{\text {n }}$ 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 Máhrátás 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 Parasu'-Ra'ma, 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 $\dagger$. This induces me to think, that these seventeen persons were the sons of Khosru-

[^66]Perviz, called also Nushírva'n, who were conveyed away privately to India, by the order of their brother Shirovyeh; and having disappeared, were said, as usual in the east, to have been put to death by him. Shirovyeh has been already acquitted of the murder of his father, by the venerable and learned Ebn-Batrick, 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-BAtrick says, that Khosru-Plrviz died of the plague, in confinement; and was soon followed by Shrrovyeh, 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 Рносаs. 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 wàs 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 $i t$, 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 $\mathrm{Zacha}_{\mathrm{A}}$ rias, 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. Khosry 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 Máhrátás: According to the Pauránics, Parasu'-Ra'ma, having extirpated the Cshettris, and filled the earth with blood, wanted to perform a ${ }^{\dagger}$ 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 stand-
ing on the summit of the mountains of Cúcan, he spied fourteen dead bodies, stranded on the adjacent shores below. These were the corpses of so many Mléch'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 state of putrefaction. Ra'ma recalled them to life, imparted knowledge to them, and conferred on them the Bráhmenical ordination, and then bid them perform the sacrifice. From these fourteen dead men is descended the Cucanastha tribe of Máhrátás; thus called, because, since that time, they have always staid and remained in the Cucán.

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 Chitpáwana; and the Ránás of Udaya-pur, with the Peshwath's family, belong to it. The names of the two other tribes I do not recollect. These are probably the seventeen sons of Nushírva' , supposed to have been put to death by their brother Shirovyeh, and the times coincide within two or three years.

According to the Pauránics, there was also the dead body of a camel, belonging to the fourteen brothers : but of him Paras'u-Ra'ma took no notice. There was a magician, who wanted to perform certain magical rites, but could find no Bráhmen, that would assist at these nefarious ceremonies. He took some of the ribs of the camel, pronounced some powerful spells, and made men of them, and moreover conferred on them the sacerdotal cord. From them is descended the Cárárá, another Máhrátá tribe in the Deccan.

The Peshracis family, of the Chitpíwana, wish
very much to be considered as belonging to the Cucanastha tribe, since they reside also in Cucan. We read in the Ayin-Acberi, that the ancestor of the Ráná family, and a descendant of Nushirvan, was styled a Bráhmen, not because he was really so, but because he had been brought up by a Bráhmen*.

This ancestor of the Ránas meeting with no encouragement in the western parts of India, went into Berar, and at length became chief of Parnáleh, In the year of Christ 793, according to AbulFazil, 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 $\dagger$. He was the founder of the dynasty called in the Puránas Vindhya-Sactí, 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 $\ddagger$. There are still some of that family in Berar, who are also called Ránás, such as the Zemindars of Màhaur $\S$.

It is the opinion of the Nawab Ali-IbrahimKha's, and of the Musulmans in general in India, that the children of Nushínva'n were driven out of Persia by the Abbasis, whose dymasty began in the year 749; misled probably by some latter emigration of natives from Persia. To

[^67]this account it is generally added, that the Abbásis sent them away privately in different ships; but none of the posterity of Nushíkvan remained at that time. Firuz, the son of the last Yezdegird, after the death of his father in 65!, fled to Khoten, where he was, kindly received; and in 662 was acknowledged king of Persia, by Kaotsong 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 fortunc; but meeting with no success, he returned to China, between the years 710 and 712, and died at Sigan-fu*.

The Máhrátás are called Mahá-rásht ras in Sanscrit: Mahá is great and illustrious, and Ráshtra, synonymous with Raja-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 Bráhmens. When they came into India, there was a tribe of Rásht'ras or Raja-putras, called Rators in the vulgar dialects, and Oratura by Pliny : there was also another tribe, called Su-Rásht'ra, or the illustrious royal offspring. These are called Syrastre, and their country Syrastrene, by Ptolemy and others; and it is called, in the spoken dialects, Surát and Sorát'. When our new adventurers had obtained power and influence, they assumed the superior title of Mahá-Rásht'ras; and by striking out such letters as become useless, when brought to the standard of the spoken dialects, we have Mahá-rátá Máhráta and sometimes Máhrátor, as Rát'or from Ráshtra. Thus we have Surát from Surásht'ra, and G'ujarát from Gurjar-Rásht'ra.

* Deguignes, Hist. des Huns, Vol. I. p. 57.


## III.

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BY SAMUEL DAVIS, ESQ.
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AlbUMAZAR, an Arabian astronomer, who lived at Ballch, informs us, that " the Hindus reckoned from the flood to the Hejra 720, 634, 442, 715 days, or 3,725 years."

The astronomical rules of Brahmagupta, who lived in the 7 th century, were in use in Albumazar's time (see Asiat. Researches, vol. 2. p. 239) and the term of Brahma's employment in the creation, $17,064,000$ 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, Asiatic Researches, proceed as follows:

| Years expired of the Calpa to |
| :--- |
| the end of the Satya yuga |
| Treta yuga - |
| Dwàpar - |
| To the Cali-yuga |

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 Siddhánta Sirbmani, 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 Súrya-Siddhánta.

In other words, the solar sidereal year, instead of containing ${\underset{D}{D}}_{365}^{P}{\underset{V}{5}}_{1.5} 3124^{\prime \prime \prime}$, was estimated to con| $\operatorname{tain}$ | ${ }^{\mathrm{D}}$ | D | D | P | V |
| :--- | :--- | :--- | :--- | :--- | :--- | tiply $1,577,916,450,000$, 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 Albumazar; 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.

Besides these, nine Ardhachacravartis ruled at different times; their names are, 1 Aswagríva, 2 TA'raca, 3 Méruca, 4 Nísunbha, 5 Caitabha, 6 Bali, 7 Praharana, 8 Ra'van'a, 9 Jara'sa'nd'ha: these were renowned by the title of Vasudécacula*.

The government of these kings was overthrown by a race distinguished by the honorable title of Prati-vasudéva-cula, viz. 1 Triprishta, 2 Dwiprishta, 3 Swayambhu', 4 Purushóttama, 5 Purushavara, 6 Pundaríca, 7 Datta, 8 Lacshmíd'hara, 9 Na'ra'yana.

The title of the other inferior kings was Mandalăd'hisa. These Narachacravartis and Ard'hachacravartis, wresting the sovereignty from each other, ruled at different periods, up to the beginning of the present age.

Narachacravartí signifies entire sovereign, ruling, without interruption, the six parts or divisions of the terrestrial world $\dagger$. Ard'hachacravartí signifies half sovereign; or who ruled three C'handas or divisions of the earth. The Mandalád'his'as were Rájás 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 Vard'hamana Swamí, who was the twenty-fourth Tirthacar, or pontiff of the Jain religion, there was a Mañdalad'his'a, called Srenica Mahára's. In his reign, the religion and people of the Jain sect were protected; he reigned for a considerable time at Rájagrǐhapúr, and departed from this world. After his death, the kings Chamunda'ra'ya, Janantaraya

[^68] $\dagger$ The six Chandas of Bharata varsha.
and other princes (nine Chólarus and nine Ballóls*) governed the dominions of Hindustan, to the time of Bijualraya, who ruled with renown in the city of Calyána. Afterward, the Dacshin of Hiudustan was conquered bythe Sábdapramánst, or those who receive and admit the authority of the Védas. Next, the kingdom was ruled by Prata'p-Rudra, Rájá of Vórangall; and, after his death, by the kings of Bijaynagar, called Ráyil; till the time of Crĭshn'sRa'ya and Ra'ma-Ra'ya; from which period, the Dacshin fell under different Musulman governments.

The Jains are divided into four classes or casts, in like manner as the followers of the Vedas, viz. Bráhmens, Cshatris, Vaisyas, and Súdras; the Bráhmens are the priests, or ministers of religion, for the other three casts; their duty is to study the Purán'as and Sástras, but they have no Védas. However, they have the A'gama Sástra, treating of prayers and other religious duties. They worship the fire, in the ceremony of marriage, and in that of initiation (Upanayana) $\ddagger$. The Jains observe the time of mourning for their deceased relations, according to their casts, as follows: an ascetic or Yati should mourn for the death of his relations one minute; Bráhmens are to mourn ten days; Cshatris, five; Vais'yas, twelve; 'Súdras, fifteen. Their lower or inferior cast consists of the Pariyas or Chándálas.

There are four orders of priests among the Jains, as among Hindus in general, 1 Brahmachári or student, 2 Gríhast'ha or householder, 3 Vanaparasta or hermit, 4 Bhicshuca or mendicant.

[^69]There are sixteen ceremonies, which the Jains, as well as the followers of the Védas, observe. Among which are, 1 (Garbád'hana) the ceremony at the consummation of a marriage, 2 (Simant) adorning a married woman's head with flowers, when she is six months gone with child, 3 (Játacarma) ceremony on the birth of a child, 4 (Námacarma) on naming a child, 5 (Annaprasána) 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 (Viváha) the first marriage, or rather betrothing, 8 (Sástrábhasa) the ceremony observed when the young lads begin to read theSástras, 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 Upanáyana, 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 saints. 2 Venerating spiritual parents. 3 Studying or reading their holy books. 4 (Tapasya) internal or mental devotion, abstracted from all thoughts but that of the deity. 5 Making

[^70]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. Anuorata, Mahárorata, Niroána. To attain the rank of Ansorata, one must forsake 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 (Camarid'alu), and wearing only tawny coloured clothes : he must reside for some time in one of their temples. He next proceeds to the second rank Mahárorata; when, totally abandoning any degree of elegance in his dress, he uses only a rag to cover his nakedness, as a Brahmachárí: he still retains the fan and pot; he must not shave 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 Nirvána; 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's 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 Niroán; 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 Niroáns or Gurus. Yet they say, that these are not the likeness of God; " because no one linows God, or has seen his likeness, that he should be able to describe him." However, they adore these images of their Niroana-nát'hs as gods.

[^71]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 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, Vais'yas, and Súdras, among the Jains, may eat victuals dressed by Jain Bráhmens; but Bráhmens 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, lest $\sin$ 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 liquors, 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 occupations *, will not

[^72]be admitted to the sacred presence of God. 1 In splitting firewood, 2 Forming the floor, and smearing it with cow-dung, 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 is 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, \&cc. when the husband departs from the world, the widow's head is shaved in like manner as the Bráhmen 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 Mangalasútra, (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.

[^73]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 obsequies, 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 be 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 V'das) 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 inconveniencies 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; therefore, they do not believe that God is in the heavens above, "because no one ever saze him," and they deem it impossible for others to see him; but they believe in their Tirt'hacars, as their ancestors have seen and given a full description of the first prophet or Guru, who attained the station 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 the several Gurus, who succeeded him, and were incarnate as protectors of their religion. These naked images they worship in their tempies 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 ; undescribable." 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 Jinés'wara, being incarnate in the shape or body of one of their Gurus, or Tirt'hacars. Therefore, the Jains worship the images of their Gurus, as the means of attaining the following stations:1 (Salóca) a station whence God is beheld at a distance; 2 (Samipa) one in the presence of, or near, God; 3 (Sarupa) similarity to God; 4 (Saybga) union with God. According to these several gradations, he belongs cither to the order of, 1st, (Grihast'ha) a householder; 2dly, (Anvorata) the lowest rank of ascetics; 3dly, (Mahaborata) the second; or 4thly, (Niroána) 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 Naraca.

The Jains of this country never follow any other trade than merchandise. They wear a cloth round the loins, a turband 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 centre of the sandal mark, by way of further decoration.

The following is the formula used by the Jains of the Carnat'ac, 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 centre of the three worlds, in the central world, and in the island of Jambúdwipa, (in which appears the renowed Jambí tree; ) southward of the great mountain of Mahá-Méru, in the land of Bharat, on the good soil of the renowned division of Carnát'aca-Désa, 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 Rájá Vicramárca, (as accepted by many great and excellent people, who observe the gracious laws), and in the present year of 'Sa'liva' Hana, 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 bestows 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 ceremonics of Ashtamí and Chaturdasí, (8th and 14 th of each half month;) he who purifies his head by the drops of the sandal water, in which the images of the Jains are bathed, to such I bow my head," \&c. \&c.

As the Bráhmens, who follow the Vedas, fast or the day called Ecádasí, (11th of each fortnight;) in like manner the Jains fast on the 3th and 14th days. (Ashtami and Chaturdas"'), twice a fortnight: they also worship the serpent Nága, on the festival of Anantachaturdasí, in like manner as other Hindus, and tie over their shoulders a red thread.

At this time, the Jains have four Mathád'hipas, or chief pontiffs, at the following places, 1 Pénugonda or Pennaconda, 2 Canchí or Conjeveram, 3 Collapur, 4 Delhi.

Their Sannyásis, 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 Gotrás, and eat with the disciples of their several priests and casts. 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-Belligola 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 disciples established three subordinate Gurus, in three different places, below the western Gháts, at Mooda, Beedeery, Caroocollom, and Soda. Jain Sanmyásís 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 Bélligóla, named Gómatésiwar Swa'mí.

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 JAINS,

received from
chárucírti a'cha'rya,
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

[^74]

View taken in the Court below.
View taken fiom the opposite Terrace above
 rqpresented at A is designid to shev the comparative height of a man, standing on the opposite tornace 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 Adís'wara, 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 Avasarpiní, and Utsarpini: each of them are reckoned at ten Crơrs, of Crórs of Ságarópamas*. Utsarpiní is divided into six portions, which are named, 1 Atiduc'hamá, 2 Duc'hamá, 3 Duc'hamá Suc'hamá, 4 Suc'hamá Duc’hamá, 5 Suc'hamá Suc'hama, 6 Suc'hamá. The second age, Avasarpiní, is also divided into six parts, by name, 1 Suchamá, 2 Suc'hamá Suc'hamá, 3 Suc'hamá Duc'hamá, 4 Duc'hamá Suc'hamá, 5 Duc'hamá, 6 Atiduc'hamá. 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 Airávatas. These divisions are particularly explained in the book called Trilócasataca.

Among the ages abovenamed, the revolution of four Crórs of Crórs of Ságarópamas was assigned to the first, or Suc'hamá. During that age, men subsisted on the produce of ten different Calpaoricshas, or celestial trees, called Bhójanánga, Vástranga, Bhúshanánga, Málánga, Grǐhánga, Racshanánga. Jybtiranga, Túryánga, and Bhâjanánga. Thus men used to subsist on the spontaneous produce of the trees; and kings ruled not the earth ; all were abundantly

[^75]happy; and the people of that age were distinguished by the name Uttama-bhoga-bhúmi-pravartacas, supremely happy inhabitants of the earth.

On the commencement of the second age, Suchamá Suchamá, which lasted for three Crórs of Crórs of Sagarópamas, 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-bhúmi-pravartacas, moderately happy inhabitants of the earth.

This was followed by the third age, Suchamé Duc'hamá: its measure is two Crórs of Crórs of Sá garópamas. During this period, the people werestill more straitened in the produce of the Calpavricshas, as well as inferior in longevity, color, health and happiness: the people of this age were named Jaghanya-bhóga-bhúmi-pravartacas, or least happy inhabitants of the earth.

In these periods there were born, at different times, fourteen Manus, by name, 1 Pratis'ruti, 2 Sanmati, 3 Cshémancara, 4 Cshémandhara, 5 Srímancara, 6 Srímandhara*, 7 Vimalaváhaxa, 8 Chacshushmán, 9 Yasaswí, 10 Abhichandra, 11 Chandrábha, 12 Marudéva, 13 Prasanna, jita, and 14 Na'bhira'ja. The last Mamu, having married Marudévá, begot a son, named Vríshashana'tha Tírthacar.

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

Before the commencement of the fourth age of the Avasarpiní, when the time of destruction appeared to be nearly approaching to mortals or mankind, through the disappearance of the Calpavricshas or celestial trees, Vrìshabhanátha Tírt'hacar was incarnate, in this world, as son of the fourteenth Menu, Na'bhira'Ja, at the city of Ayód hyá. 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, Masí letters (literally ink), Crishi agriculture, Vánijya commerce, Pásupála attendance on cattle. Upon this arrangement, he became king over all mankind, and composed the four sacred books, called Prat'hamámuyóga, Caranánuyóga, Charanánuyóga, and Dravyánuyóga. Thus Vrishabhana'tha Tírthacar established the religion of the Jains, in its four classes, or casts, of Bráhmens, Cshatris, Vaisyas and Súdras; 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 originat 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 Mócsha, or the state of the Almighty, his image was venerated as Jainéswar, or the Lord of Jains: as he had early subdued, by his wisdom, all worldly affections, and was relieved from restraints and carnal ties.

Before the departure of Vrishabhanatitha Tírt'hacar, his wives were Asasvatí and Sunan dadeví; by the former he had a son, named Bhafata Chacravartí; and by the latter Gómate's'wara Swa'mí. The eldest, Bharata Chacravartí, ruled over the whole of the six divisions of the earth, and named it Bharatacshétra; from that period the earth bears his name. The metropolis of this king was Ayod hyá (or Oude). After he had ruled for a considerable time, he appointed his younger brother, Gómate's'wara Swamí, to the government. Then abandoning the (Carma) actions or affections of mankind, he obtained the fruits of his sacred contemplation, and proceeded to Mócsha, or heavenly salvation.

Gómates'iwara Swa'mí, after he was charged with the government, ruled for a considerable time, in a town named Padmanabh-pur; in the end, he attained (Niroána) beatitude in heaven, and departed thither. Since his death, the people worship him, in all respects, as Jinéswara, or God. From that period, twentyfour Tírthacars have passed, during the age of Avasarpini, up to the end of the Dwápara-yuga.

According to the Jains, there were born other twenty-four Tirt'hacars in the world, during the first age, besides the twenty-four from the birth of Vrìshabhana't'ha Swa'mí. The names of the Tírthacars of Atitacalla or past times, are as follow, 1 Nirma'na*, 2 Sa'gara, 3 Maha'na'tha $\dagger, 4$ Vimalahprabhał, 5 Srídhara§̧, 6 Sudantall, 7 Amalaprabha $\frac{1}{}$, 8 Udara **, 9 Angira $\dagger \dagger$, 10 Sumati,

[^76]11 Sind'hu *, 12 Cusuma'njarí, 13 Sivaganga $\dagger$, 14 Utsa'ha, 15 Gane's'wara, 16 Parame's'wara, 17 Vimalés'wara $\ddagger$, 18 Yasód'hara, 19 Crushta §. 20 Ganamurti \|, 21 Siddhamati, 22 'Sríbhadra If, 23 Atriconta $\downarrow$, 24 Sa'nti.

To the Tirt'hacars, who departed to Mócsha in the times of antiquity, the Jains pay a respectful adorasation, even more assiduously, and with greater veneration, than to their Tirt'hacars, who were incarnate, according to their accounts, in the age, or period of time, called Utsarpiní.

In their prophecies it is said, that the following: are the names of the Tirt'hacars, yet to be incarnate, in the future or next Utsarpiní period: 1 Mahápadma **, 2 'Surade'va, 3Supars'wana $\dagger \dagger, 4$ Swayamprabha, 5 Sada'tmabhútit㧊, 6 Dévaputra§§, 7 Culaputra $\|\|, 8$ Udanca 9 T, 9 Crusta ***, 10 Jayacírti $\dagger 1$, 11 Munisuvrata $+才, 12$ Ara, $13 \mathrm{Ne}-$ pompa $\$ \$ \xi, 14$ Nishcashaya, 15 Vipuláca, 16 Nirmalla, 17 Chitragupta, 18 Samádhicupta HIll, 19 Swayam-bhu 1 बा $\mid T, 20$ Anuvarтаса***, 21 Jaya $\dagger \dagger \dagger$, 22 Vimalla $+ \pm+\dagger$,


Their ancient Tirt'hacars, being endowed with the gift of prophecy, predicted the future succession of these Tint'hacars, for the information of the world.

[^77]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 Dévatás perish, while the Vimánas* endure.

## MISTORICAL AND LEGENDARY ACCOUNT

or

## BE'LLIGOLA,

COMMUNICATED BY THE FIGH PRIEST AT THAT STATION,
IN ancient times, an image was at this place, self formed from earth, under the shape of Gómat I's'waRa Swa'mí, which Ra'vana, the monarch of the Racshases, 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-Ra'ya, 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 Padmanábh-pura, an image of Gómat I's'wara Swa'mí. On hearing this relation, he made a vow, before all the people, not to drink milk, until he saw the image of Gбmat Is'wara. 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

- The abodes of deities of various classes,
went immediately into the presence of Sinvananda ACha'rya, 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 Padmanábh-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 Maha'ra'j, 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 Padmanábhpura, as it was too distant ; and to worship another image of Gómat I's'wara Swa'mí, eighteen times man's height, on the mountain of Indragiri; equal for miracles to the image that was in height fifty-two fathoms at Padmanábh-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, Chamundaráy 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 several proportions of the body resembling the original likeness of Gómat I'siwara Swaimí, in profound contemplation, to obtain Mócsha. 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 Rájás, from the time of Bala'lray down to VishnuVardd'han. 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 Sinva'nanda A'charya, 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 Bélligola is the regular successor, according to the following list of Gurus, from the last of the ancient twenty-four Tirt'hacaras in the fourth age, who was named Vardhamánaswámí, and who attained beatitude (Mócsha) 2464 years before the year of the cycle Durmati (or A. D. 1801) $\dagger$; at the time when SRE'-N'ICA-MAHA'RA'J, having ruled for the space of a hundred years, departed to heaven.

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Image in the fain Pagoda May 1800.


Statue dug up at Conjeveram supposed to belong vo the fain Worship $18^{\text {th }}$ August 1799 .

## LIST OF THE NAMES OF THE GURUS,

From the last Tirt'hacara of Ancient Times, down to the present Guru.

## VARD'HA'MANA SWA'MI',

The twenty-fourth Tirt'hacara of the last List.

1. Gautama *, 2 Sudharmat, 3 Jambúna'tiha, 4 Vírasén A'chárya $\ddagger, 5$ Vrishabhasén $A^{\prime} c h a a^{\prime}-$ rya, 6 Siddihasén A'chárya, 7 Vírasén A'cha'rya, 8 Sinvánand A'chárya, 9 Cunda cund A'chárya, 10 Grĭdhrapénch A'chárya, 11 Mayúrapénch A'chárya, 12 Dha'rasén A'chárya, 13 Bahuse'n A'cha'rya, 14 Ca'liparames'war Swa'mí, 15 Jinasén A'chárya, 16 Gunabhadr A'chárya, 17 Akalonka Swa'mí, 18 Veekalonka Swamí, 19 Abhayachandra Sidd'ha'nt, 20 Srutamunivatárca, 21 Pujyapa'da, 22 Vidya'na't'ha, 23 Jayaséna, 24 Avírase'va, 25 Lacshmísénaba'lárca, 26 Cha'rucírtipandit $\Lambda^{\prime} c h a ' r y a$, the present priest at Belligola: his age is 65 ; and he arrived at his present rank 30 years ago.

Chamundara'y, after having established the worship of this image, hecame proud and elated, at placing this God, by his own authority, at so vast an expense of money and labour. Soon after this, when he performed, in honour of the god, the ceremony of Panchámrita Snána, (or washing the image

[^79]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. Chamundaráy, notknowing 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 Padma'vatí, by order of God, having transformed herself into the likeness of an aged poor woman, appeared, holding in her hand the five Amritas, in a Bélliyagola, (or small silver pot,) for washing the statue: and signified her intention to Chamundaráy, 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 surprize of the beholders, she washed the image with the liquor brought in the little silver vase. Chamundara'y, 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 Bélliyagola) which was held in Padmávati's hand. Sravana (Sraman'a) is the title of a Jain Sannyási; and, as this place is the principal residence of these Sannyásis, the people call it Sravan-Bélligola.

Many years after this period, a king, named Bhattavard'han, reigned at Dwaratípattan; which the people now call generally by the name of Doragul, or Dorasamudram. It is said, that he wanted a finger. 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 Sannyásí 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 Swám', 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.

Bhattavard'han, 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 befal their religion : the Steómé 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, Bhattavard'han, agreeably
to the commands of his mistress, whom he loved, joined her sect, which was that of the Vaishnaves; and, from that time, his name was changed from Bhattavardhan, to Vishnuyard'han. This country was ruled, for many years, by his descendants. On the downfal 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 Anégóndi 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 Sannyásis. 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-Dévara'ja Vadeyar, a Jain, named Annaya Chetty, constructed, at this place, the tank named Calyání.

Formerly Ra'mánuja, 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 worsted the Jains, in their disputations on religion and law; and erected here a pillar, on which were inscribed the symbols of the Sanc'ha and Chacra; and, cutting off a small piece of the finger of the left hand of Gómat I's'war Swa'mí, he departed.

Bélligola is the most revered place of the Jain worship aboye the Gháts. Here are two mountains; one called Indragiri, and the other, Chandragivi: the former is situated on the north-west, adjoining to the village : on its summit stands their famous image of Gómat I's'war Swa'mí*, of the height of eighteen

[^80]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 Tirthacars, 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 cós 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 Matha 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 Mysore Rájús, and of Haider Nayac, certain villages were granted, in Jagir, to the god and the college. There are not any families of any other principal casts, excepting Jains, in the village of Béligola.

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 Mat'ha used to send a written notice over the country, to announce the festival to all Srávacs or Jains. 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, fir 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.

Translation of an Inscription, cut on a Stone, upon the Hill of Bélligola, in front of the Image.

## 'BE GOOD FOR ALL.'

Be success to the famous Ra'manu'ja*, who is lord above the lords of Atithis or Sanmyásis; who, like the mighty fire from the face of Vidavánala, disperses or dries up the water of the ocean of Píshan'das, or infidels; who is chief among the slaves of the Lily feet of Srírangarája; who allows a passage through Vicunta, ornamented with many edifices of precious stones.

In the year of the Saca 1290 t, in the Cilaca year of the cycle, on Thursday, the 10th of the month of Bhádrapad, be success and glory to the honourable monarch, the sovereign and destroyer of envious princes, lord of foreign kings, whose name is BuccaRA'YA. During his reign, on account of the disputes of the Jains and Bhactas, the principal citizens of the new city, or Hasápattan, of Anégóndi, of Pénugóndá, of Caláhatti pattan, and of other places, represented to the prince the injustice committed by the Bhactas: he assembled a court, composed of the following people: Covila Tinamala, Péru Coyila Tirumala Rayana, and other chief $A^{\prime}$ cháryas, judges, inhabitants, and other followers of the Tiruman and Terubadi 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

[^81]$$
\text { + A, D, } 1367 .
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the Jains and Vaishnavas. The Mahárája, 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 Bhactas; and, for the performance of this, he ordered it to be made public, by inseriptions carved upon stones, in the Jain temples, all over the empire, that no distinction, or contradiction, appeared between the religion of the Jains and Vaishnaoas: therefore the Vaishnavas should agree to protect them, while the sun and moon endure. Terumatia, 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 Bélligola Tirt'h, and to repair the buildings of the Jinálayas, or temples of Jina.

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 Gangá 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."

## EXTRACTS OF A JOURNAL,

BY MAJOR C. MACKENZIE.

Peb. 24, 1797. NEAR Calyani. On arriving at Mud ${ }^{2}$ giri 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 Detwal of Ramalingam, one of them was a groupe of five Lingams *, and a great number of stones were placed round the temple, covered with scuiptures. At a temple of Hamumán (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 cocoa 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 stone, 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 coverer with curls, like the figure of Budd'н; the nose W s defaced, and a fracture run through the figure. The annexed sketch will give some idea of it $\dagger$. 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

[^82]


JAIN - DE O
at Nudqeery near Callianee


Fragments of SCULPTURED STONES dug up at Amaxapoor or CAmishvaram in Guntoor 1798
and neglected: and particularly, the several heads of snakes, which as a group shaded it, were mutilated. I could obtain no further information respecting it.

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

In the morning before day, we left Ibrámpattan by moon-light, and passed along the north bank of the Crǐshna. 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 Amrésvaram. The temples appear to be new, and are said to have been recently built by the Chintapelli Rájá, who has fixed his chief residence here, since Lacshmipuram 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 Lacshmipuram, \&c. A street, going south from a gate of the temple, seems to be 200 feet wide; and an open choultry stands in the intersection of four principal streets. Ifound Boria ready to receive me, attended by some Bráhmens; who said, that the people here

Vol. IX.
were rather surprised and alarmed at the 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 relievo, of which Mr. Sydenham took a sketch. Against the autside 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 rose 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 Bráhmens, I could obtain no other account, than that this place was called Dipál-dinna, or the hill of lamps. The Rájá, 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 Bráhmen, who was admitted, had perceived only some broken pieces. The sculptured stones observed, were as follows:

[^83]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 Chambu, or pot on her head, in the Hindu style. My Bráhmen naturally enough concluded, that this represented a female carrying water to assist 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 $P$ álráyi, 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 diyided 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 characters were carved: on

[^84]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 Bráhmen to transcribe the whole, but his copy was not satisfactory. In the place marked cc , 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 $\uparrow$.

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, sitting 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 fanner, 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 octangular, 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 arms : several horsemen, 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 dune, 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, defence 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 Bráhmen 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 Brákmens.

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 careless 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 seats represented in

[^85]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 choury. It is well known, that Hindu princes, sitting in state, were generally thus attended. So Crishna Ra'ja' 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 lombâdi or benjarí women. Nons 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 Mahadéo, would be extremely desirable, and a complete section across the area of Dípál-dínna would perhaps exhibit more remains.

I was disappointed in not finding any thing like the figure of Jeindeo, which I had seen at Calyani,


ANCIENT
Sculpture and Onsoription

SRAVANGOODY,
(h.hamacters mulhame)
mean Madagasee.
October 1801.

AB. As a Jain Pagoda was here formerly it is probable these Inscriptions there may have some connexion with the Jain Antiquities.

## PARTICULARS OF THE JAINS.

## EXTRACTED DROM A JOURNAL

$$
\begin{gathered}
\text { BY DOCTOR F. BUCHANAN, } \\
\text { During Travels in Canara. }
\end{gathered}
$$

Maving invited Pandita 'Achárya Swa'mí, 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 Arhata; and they acknowledge that they are one of the twenty-one sects, considered as heretical by 'Sancara 'Acha'rya. Like other Hindus, they are divided into Bráhmen, Cshatriya, Vaisya, and Sudra. 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 S'Sidra 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 Tulara, 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 Cshatriya when engaged in war. They all burn the dead.

The A'rhatas reject the Védas and eighteen Purárias of the other Bráhmens, as heretical. They say, that these books were composed by a Rishi named Vyasa, whom the other Bráhmens consider as an incarnation of the deity. The chief book, of which the doctrine is followed by the A'rhatas, is named Yóga. It is written in the Sanscrit language, and character of Carnata; and is explained by twentyfour Purán'as, all written by its author, who was named Vhishabha Sayana, a Rishi, who had obtained a knowledge of divine things, by long continued prayer. They admit, that all Bráhmens are by birth of equal rank; and are willing to show their books to the Bráhmens who heretically follow the doctrine of the Védas; but they will not allow any of the lower classes to look upon their sacred writings.

The gods of the A'rhatas 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 Jinéswara, A'rhat, and Sidd'ha; but each is called by a particular name, or names; for many of them have above a thousand appellations. These Sidd'has reside in a heaven, called Mócsha; 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 A'diparaméswara; and by worshipping him, the favour of all the Sidd'has may be procured. He has a thousand and eight names, the most common of which, amongst his adorers, is Jinés'wara, or God.

The servants of the Sidd'has are Dévatús, 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 bestawing temporal blessings. Concerning the great gods of the Védas, the A'rhatas say, that Vishnu was a Rájá, who having performed certain good works, was again born a Rajá, of the name of Rama. At first he was a great hero and conqueror; but afterwards he retired from the pleasures of the world, became a Sannyásí, and lived a life of such purity, that he obtained Sidd'hi (beatitude,) under the name of Jina, which he had assumed, when he gave up his earthly kingdom*. Mahéswara or Siva, and Brahmá, are at present Dévatás; 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 Dévatás, who live in a degree of bliss in proportion to their elevation. An inferior kind of Dévatás, called Vyantaras, live on mount Méru; but their power and happiness are greatly inferior to those of the Dévatás of Swarga. The various Sactis, are Vyantaras, living on Mahá-Méru; but they are of a malevolent disposition.

Below Mahá-Méru, and the earth, is situated Bhuroana, or hell; the residence of the spirits of wicked men. These are called Racshas and Asuras, and are miserable, although endowed with great power. Bhuvana is divided into ten places of punishment, which are severe in proportion to the crimes of their respective inhabitants.

[^86]The heavens and earth in general, including MaháMéru and Bhuoana, are supposed never to have been created, and to be eternal; but this portion of the earth, Arya 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 A'rya or Bharatacánda. The books of the A'rhatas mention many Dwípas, surrounding Mahá-Méru, of which the one we inhabit is called Jambú Droipa. People from this can go as far as Manushbttara, a mountain in the middle of Pushcara-Dwipa, bétween which and Jambú-Dwipa are two seas, and an island named Dhatucí. JambúDwípa 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 Mléch'has or barbarians. A'rya or Bharatacánda is divided into fifty-six Désas or provipces *, as is done by the other Bráhmens. As Arabia and China form two of these Désas, A'rya would seem to include all the world, that was tolerably known to the Arhatas, who composed the books of this sect.

Every animal, from Indra down to the meanest insect, or the most wicked Racsha, 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 becomes perfect, and obtains a place among the Sidd'has. A Súdra must be born as one of the three higher casts, before he can hope for this exemption from evil ; but, in order to become a Bráh-

[^87]men, it is not necessary, that he should be purified by being born of a cow, as many of the followers of the Védas pretend. The A'rhatas, 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 A'rhatas, of course, never offer sacrifice, but worship the gods and Dévatás, by prayer, and offerings of flowers, fruits, and incense.

The A'rhatas are frequently confounded, by the Bráhmens who follow the Vedas, with the Saugatas, or worshippers of Budd'Ha ; but this arises from the pride of ignorance. So far are the A'rhatas from acknowledging Budd'ra as their teacher, that they do not think he is now even a Dévatí; 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 Budd'ha.

The Jain Bráhmens are all Vaidya, and dress like the others, who follow the doctrine of the Védas. They have Gurus, who are all Sannyásís; 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 Bélligola, near Seringapatam*: but Pandita A'charya Swamí pretends to be at least his equal. In each Mat'ha there is only one Sannyási; who, when he is near death gives the proper instruction to one of his followers, who must relinquish the world and all its enjoyments, except perhaps an indulgence in the pride of devotion. The office is not confined to the

[^88]Bráhmens; none but the Súdras are excluded from this highest of dignities; for all the Sannyásís, after death, are supposed to become Sidd'ha; and of course do not worship the Dévatás, who are greatly their inferiors. The Sannyásis 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 SWA'mí, 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 Bráhmens act as priests for the gods, and as Puróhitas for the inferior casts. The follower may choose any Bráhmen he pleases, for his Puróhita. The Bráhmen 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 any where, 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 Ra'mánuja A'cha'rya. 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 Párswa Bhat'táraca, which forced great numbers to come to this country. Their ideas of history and chronology, however, as usual with Bráh-
mens, are so very confused, that they suppose $\mathrm{Pa}^{\prime}$ rswa Bhat'taraca to have been the founder of the Muhammedan faith. None of them have the smallest trace of the Arabian features; but are in every respect entirely Hindus.

There are two kinds of temples among the Jains; one covered with a roof, and called Basti; and the other an open area surrounded by a wall, and called Bettu, which signifies a hill. The temples of Siva and Vishnu, the great gods of the followers of the Védas, are called here Gadies. In the Bastis are here worshipped the images of twenty-four persons, who have obtained Sidd'hi, or become gods. These images are all naked, and exactly of the same form; but they are called by different names, according to the person, whom they are meant to represent. These idols are in the form of a man sitting. In the temples called Bettu, the only image of a Sidd'ha, is that of a person called Gómata Raja, who, while on earth, was a powerful king. The images of Gómata Ra'ja 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, $10 \frac{1}{3}$ 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 Víra-Pandia, son of Bhairavéndra, 369 years ago.

The Jains deny the creation of man, as well as of the world. They allow, that Brahma' was the son of a king, and that he is a Dévatá ; and the favourite servant of Gómata Ra'va; but they altogether deny his creative power. Brahma', and the other Dévatás, are worshipped, as I have said, by the Jains, who

[^89]have not become Sannyásis; 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 lias 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. RA'ma is never represented by an idol in a Basti, although he is acknowledged to be a Sidd'ha: and, although Ganeesa and Hanumán are acknowledged to be Dévatás, these favourites of the followers of the Védas have no images in the temples of the A'rhatas.

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 A'rya are destroyed by a shower of fire. Some have always escaped to the other Cándas, and have returned to re-people 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-Ra' ya is given in a book called Gómata Ráya Cheritra. The Camunda Ráya Purána 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 BUDD'HA), 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 authentic source; the declarations of two principal priests of the Jainas themselves. It is supported by similar information, procured from a like source, by $\mathrm{D}_{\mathrm{R}}$. 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 Jaina sect.

I am enabled to corroborate both statements, from conversation with Jaina priests, and from books, in my possession, written by authors of the Jaina persuasion. Some of those volumes were procured for me at Benares; others were obtained from the present Jagat-S'ét, at Morshedabad, who, having shanged his religion, to adopt the worship of Vish-
n'v, 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 Mléch'has or Bar, barians. The Jainas, it is found, admit the same division into four tribes, and perform like religious ceremonies, termed Sanscaras, from the birth of a male to his marriage. They observe similar fasts, and practise, 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 VEdas, 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 Védas perform, to obtain specific promised consequences, in this world, or in the next.

In this respect, the Jainas resemble the Baudd'has or Saugatas, who equally deny the divine authority of the Védas; and who similarly worship certain preeminent saints, admitting likewise, as subordinate dei-

THE JAINS.
ties, neaily 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 conchuded, 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 Baudd'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 $V e$ danta, 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 Védanta 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 Baudd'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-

* Vrihad aran'yaca Upanishad.
gical and metaphysical ideas found among other sects, joined to many visionary and fantastic notions of their own.

Their belief in the eternity of matter, and perpetuity of the world, is common to the Sanc'hy a philosophy, from which it was perbaps 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 (Jiva) 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 Taijasa and Cármana Saríras). The soul, so embodied, becomes, in its successive transmigrations, united with a grosser body denominated Audárica, 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 goods and genii. This last is termed Vaicárica. They distinguish a fifth sort of body, under the name of 'Ahárica, 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

[^90]that form issued, or rather from which 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 Srávacas and Yatis. The laity (termed Sráoaca) 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 Bráhman'a, 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

[^91]Bráhmanas at their ceremonies; and, for want of Bráhmanas of their own faith, they even have recourse 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 Yatí and 'Sraman'a, (in Prácrit and Hindl written Samana, to a person who has devoted himself to religious contemplation and austerity; and the sect of Budd'ha uses the word 'Sraman'a for the same meaning. It cannot be doubted, that the Sommonacodom of Siam is merely a corruption of the words Sraman'a Gautama, the holy Gautana or Budd'ha*.

Having been here led to a comparison of the Indian sects which follow the precepts of the Védas, 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 Baudd'has before the Bráhmanas.

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 $\uparrow$. Consequently a sect which, like the modern Baudd has, has no distinction of cast, could not have been then the most prevalent in India.

It is indeed possible that the followers of Budd'ha may, like the Jainas, have retained the distribution into four tribes, so long as they continued in Hindustan.

[^92]+ Seven tribes are enumerated: but it is not difficult to reconeile the distinctions which are stated by Arrian and Strabo, with the present distribution into four classes.

But in that case, they must have been a sect of Hindus; and the question, which is most ancient, the Bráhmana or the Baudd'ha, becomes a solecism.

If it be admitted that the Baudd'has 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 Védas, 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 Vedantis, or followers of the theological and argumentative part of the Védus, is of latểr date : and it does not seem improbable that the sects of Jina and of Budd'ha are still more modern. But I apprehend that the Vaishnavas, meaning particularly the worshippers of RAMA and of Crïshinat, may be

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\text { As. Res. vol. 8, p. } 474
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$\dagger$ In explanation of a remark contained in a former essay (As. Res. vol. \&e p. 475), I take this occasion of adding, that the mere mention of $\mathrm{Ra}^{\prime} \mathrm{ma}$ or of Crishn'a, in a passage of the Védas, without any indication of peculiar reverence, would not authorize a presumption against the genuineness of that passage, on my hypothesis; nor, admitting its autheuticity, 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 Védas, particularly in that part of it which is entitled Bràltman'a, would not appear surprising. Accordingly, Crishn'A, sou of De'vací, is actually named in the Ch'handógya Upanishad (towards the close of the 3d Chapter,) as having received theological information from Ghóra a descendant of Angiras. This passage, which had escaped my notice, was indicated to me by Mr. SPEKE from the Persian translation of the Upanishad.
subsequent to those sects, and that the 'Saivas also, are of more recent date.

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 Cáshmir, which, in the original Sanscrit, was presented to the emperor Acber, as related by Abul-fazil in the Ayín Acberí*, and of which a Persian translation exists, more ample than Abul-fazil's brief abstract, has been at length recovered in the original language $\ddagger$. 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 $\ddagger$, from the English translation of the Ayin Acberi, for an import which is not supported by the Persian or Sanscrit text.

The author, after briefly noticing the colony established in Cáshmír by Cas'yara, and hinting a succession of kings to the time of the Curus and $P$ ándaras, opens his detailed history, and list of princes, with Gónanda, a contemporary of Yud'hisht'hira. He describes Asóca (who was 12th in succession from Gónanda, ) and his son Jalóca, and grandson Damódara, as devout worshippers of S'iva; and Jalóca, in particular, as a conqueror of the Mech'has, or barbarians. Damódara, according to this history, was succeeded by three kings of

[^93]$\ddagger$ As. Res. Vol. VI. p. 165,
the race of Turushca; and they were followed by a Bód hisatwa, who wrested the empire from them by the aid of S'Acyasinha, and introduced the religion of Budd'ha into Cáshmír. He reigned a hundred years; and the next sovereign was Abhimanya, who destroyed the Baudd'has, and re-established the doctrines of the Nilapurana. This account is so far from proving the priority of the Baudd'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 purána, which was procured by Major Knox, during his public mission in Népál, 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 Bup-
 present chronology adapted to astronomical periods, their legendary tales, their mystical allegories, are abundantly extravagant. But the Jainas and

[^94]Baudd'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 Vedas 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 (oopirai) as a distinct tribe, ' which, thougi inferior to the others in number, is superior in rank and estimation: bound to no bodily work, nor contributing any thing from labour to the public 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 $\dagger$.'

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 to them; but

[^95]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 $\uparrow$.' 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 Baudd'has 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,

[^96]and the judgment in the infernal regions; and other similar notions. These things are said of the Brachmanes.'

Strabo notices likewise another order of people, epposed to the Brachmanes, and called Pramne: 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 Brachmanes 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 solar ray not to be impatient of night, and to remain as conducted, from them $\dagger$.'

Pliny and Solinus $\ddagger$ also describe the Gymnosophists contemplating the sun: and Hierocles, as cited by Stephanus of Byzantium §s, 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 Jiva and Budd'ha.

Porphyrius, treating of a class of religious men, among the Indians, whom the Greeks were accus-

[^97]tomed to call Gymnosophists, mentions two orders of them ; 'one, the Brachmanes; the other, the Samaneans: the Brachmanes receive religious knowledge, like the priesthood, in right of birth; but the Samaneans are select, and consist of persons choosing to prosecute divine studies.' He adds, on the authority of Bardesanes, that ' all the Brachmanes are of one race; for they are all descended from one father and one mother. But the Samancans are not of their race; being selected from the whole nation of Indians, as before mentioned. The Brachman is subject to no domination; and contributes nothing to others *'.

In this passage, the Bráchman, as an hereditary order of priesthood, is contrasted with another religious order; to which persons of various tribes were admissible : and the Samanaans, who are obviously the same with the Germanes of Strabo, were doubtless Sannyásis; but may have belonged to any of the sects of Hindus. The name seems to bear some affinity to the Sramar'as, or ascetics of the Jainas and Baudd'has.

Clemens Alexandrinus does indeed hint, that all the Bráchmanes revered their wise men as deities $\dagger$; and in another place, he describes them as worshipping Hercules and Pan $\ddagger$. 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 Greekis ; he instances the prophets of the Egyptians, the Chaldees of the Assyrians; the Druids of the Gauls (Galatx); the Samaneans of the Bactrians;

[^98]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 Bráchimanes. 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 Encratetai (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 $\uparrow$.'

Here, to my apprehension, the followers of BudD'нa are clearly distinguished from the Brachmanes and Sarmanes $\ddagger$. The latter, called Germanes, by Strabo, and Samanaans, 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 Phloostratus 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.

[^99]In short, the Bráhmanes are distinctly mentioned by Greek authors, as the first of the tribes or casts, 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 Samancans," (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 Buddiha, 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. Hindustan 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 Carnatiaca and other districts, in which the Jainas or the Baudd'has have flourished, it cannot be thence concluded, that the followers of the Vedas did not precede them in other provinces.

It may be proper to add, that the establishment of particlar sects, among the Hindus who acknowledge the Védas, does not affect the general question of relative antiquity. The special doctrines introduced by 'Sancara-A'charya, by Ra'mánuja, and by Ma'd'HAVA'CHA'RYA, 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 Jainas, entitled Calpa-Sútra, and from a vocabulary of the Sanscrit language by an author of the Jaina sect.

The Abhid'hána Chintámeni, a vocabulary of synonymous terms, by Hémachandra áchárya, is divided into six chapters (Cándas,) the contents of which are thus stated in the author's preface. 'The superior deities (Dévád'hidévas) 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, peacocks, 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, Jinésivara, T'rithancara or T'irt'hacara: others, viz. Jina, Sarvajnya, and Bhagarat, occur also in the dictionary of Amera as terms for a Jina or Budd'ha; but it is deserving of remark, that neither Budd'ha, nor Sugata, is stated by HémachanDRA 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 Brahmá, \&cc.) he states the synonyma of a Budd'ha, Sugata, or Bód'hisatza; and afterwards specifies seven such, viz. Vipasyí, 'Srciní, Vís'manna, Cucuch'handa, Cánchana, and Ca'syAPA*, expressly mentioning as the seventh Budd'ha, 'Sa'cyasinha, also named Serva'rt'hasidd'ha, son of 'Sudd'hódana and Maya', 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 enume--rate twenty-four Arhats, who have appeared in the present Aoasarpini age : and afterwards observes, that excepting Munisuvrata and Nemi, who sprung from the race of Hart, the remaining twenty-two Jinas were born in the line of Icshw'acu $\dagger$. The fathers and mothers of the several Jinas are then mentioned; their attendants; their standards or charac-

[^100]teristics; and the complexions with which they are figured or described.

The author next enumerates twenty-four Jinas who have appeared in the past Utsarpiní 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 Jinas are specified in Major Mackenzie's communication. Wherever those names agree with Hémachan dra's enumeration, I have added no remark; but where a difference occurs I have noticed it*, adding in the margin the name exhibited in the Sanscrit text.

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

1. Rishabha, or Vrishabha, of the race of Icsuwa'cu, was son of Na'bhi by Marude'va': he is figured of a yellow or golden complexion; and has a bull for his characteristic. His stature, as is pretended, was 500 poles (dhanush); and the duration of his life, $8,400,000$ great years (púrva-varshá). According to the Calpa Sútra, as interpreted by the commentator, he was born at Cósalá or Ayód'hyá (whence he is named
[^101]Causalica), towards the latter part of the third age. He was the first king, first anchoret, and first saint; and is therefore entitled Prat'hama-Rája, Prathama Bhícshácara, Prat'hama Jina, and Prat'hama Tírthancara. At the time of his inauguration as king, his age was $2,000,000$ years. He reigned $5,300,000$ years; and then resigned his empire to his sons: and, having employed 100,000 years in passing through the several stages of austerity and sanctity, departed from this world on the summit of a mountain, named Asht'apada. The date of his apotheosis was 3 years and $8 \frac{1}{2}$ 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 Jita'satru by Vijaya': 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 $7,200,000$ great years. His deification took place, in the fourth age, when fifty lacshas of crórs of oceans of years had elapsed out of the tenth crór of crórs *.
3. Sa'mbhava was son of Jita'ri by Se'na'; of the same race and complexion with the preceding; distinguished by a horse ; his stature was 400 poles; he lived $6,000,000$ years; and he was deified 30 lacshas of crórs of Ságaras after the second Jina.
4. Abhinandana was son of Sambara by Sidd'hárt'ha': lhe has an ape for his peculiar sign. His stature was 300 poles; and his life reached to $5,000,000$ years. His apotheosis was later by 10 lacshas of crórs of Sagaras than the foregoing.

[^102]5. Sumati was son of Mégha by Mangaléa : he has a curlew for his characteristic. His life endured $4,000,000$ years, and his deification was nine lacshas of crórs of Ságaras after the fourth Jina.
6. Padmaprabha was son of Srídhara by Susima; of the same race with the preceding, but described of a red complexion. He has a lotos for his mark : and lived $3,000,000$ years, being 200 poles in stature. He was deified 90,000 crórs of Ságaras after the fifth Jina.
7. Supa'rsíiva was son of Pratishta by Prǐt'hwí; of the same line with the foregoing; but represented with a golden complexion: his sign is the figure called Swastica. - He lived 2,000,000 years; and was deified sequent to the

8. Chandraprabha was son of Maha'seina by Lacshman'a'; 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 $1,000,000$ years : and his apotheosis took place 900 crórs of Ságaras later than the seventh Jina.
9. Pushpadanta, also named Suvidihi, was son of Supriya by Ra'má: 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 crórs of Ságaras after the eighth Jina.
10. Sítala was son of Dry'd'haratiha by Nan$\mathrm{DA}^{\prime}$ : of the same race, and represented with a golden complexion : his characteristic is the mark called

Srivatsa. his life fication than the

8His stature was 90 poles; and 100,000 great years; his deidates 9 crors of Ságaras later preceding.
11. 'Sret'in ('Sreyas) or 'Sreyansa, was sön of Vishnu by Vishna; of the same race, and with a similar complexion; having a rhinoceros for his sign. He was 80 poles in stature, and lived $8,400,000$ common years. His apotheosis took place more than 100. Ságaras of years before the close of the fourth age.
12. Va'surújya was son of Vasupújya by $J_{A y^{\prime}}$ : of the same race, and represented with a red complexion, having a buffalo for his mark: and he was 70 poles high, lived 7,200,000 years, and was deified later by 54 Ságaras than the eleventh Jina.
13. Vimala was son of Crịtavarman by 'Sya'ma'; of the same race; described of a golden complexion, having a boar for his characteristic; he was 60 poles high, lived $6,000,000$ years, and was déified 30 Ságaras later than the tweifth Jina.
14. Ananta, also named Anantajit, was son of Sinhaséna by Suyas'á. He has a falcon for his sign ; his stature was 50 poles, the duration of his life $3,000,000$ years, and his apotheosis 9 Ságaras after the preceding.
15. D'harma was son of Bhánu by Suvrata'; characterised by the thunderbolt: 45 poles in stature, and lived $1, \theta 00,000$ years: deified 4 Ságaras later than the foregoing.
16. Sainti was son of Vis'wase'na by Achira, having an antelope for his sign; he was 40 poles
17. Cunt'hu was son of Súra, by 'Srí ; 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 palya of the fourth age.
18. Ara was son of Sudarsána by Déví: characterised by the figure called Nandavarta:

his stature was 30 poles, his life 84,000 years, and his deification 1000 crórs of years before the next Jina.
19. Malli was son of Cumbha by Prabhávalí; of the same race with the preceding; and represented of a blue complexion; having a jar for his characteristic ; he was 25 poles high, and lived 55,000 years; and was deified $6,584,000$ years before the close of the fourth age.
20. Munisuvrata, also named Suvrata, or Muni, was son of Sumitra by Padma; sprung from the race called Marivans'a; represented with

[^103]a black complexion, having a tortoise for his sign: his height was 20 poles, and his life extended to 30,000 years. His apotheosis is dated $1,184,000$ years before the end of the fourth age.
21. Nami was son of Vijaya by Vipra'; of the race of Icshwa'cu: 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 584,000 years before the expiration of the fourth age.
22. Némi, also called Arishtanémi, 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 Ujiinta, which is described as the peak of a mountain, the same, according to the commentator, with Giranára*. The date of this event is 84,000 years before the close of the fourth age.
23. Pa'rs'wa (or Pa'rs'wana'tha) was son of the king As'wase'na by Va'ma', or Ba'mádévi; of the race of Ic'shwa'cu ; 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 Párs'wanát'ha charitra. According to the Calpo

[^104]sútra, he was born at Bánárasí*, and commenced 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 Samméya or Samét $t$. This happened precisely 250 years before the apotheosis of the next JINA : being stated by the author of the Calpa sútra at 1230 years before the date of that book,
24. Vard'hamána, also named Vira, Mahávi'rase \&c., and surnamed Charama-tírt'hacrit, or last of the Jinas: emphatically called 'Sraman'a, or the saint, He is regkoned son of Sipd'ha'rtha by Tris'ALA' and is described of a golden complexion, having a lion for his standard.

The subject of the Calpa sutra before cited is the life and institutions of this JinA. 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 Prácrit called Mágad'hi. and that the Sanscrit language is used by the Jainas for translations, or for commentaries, on account of the great obscurity of the Prácrit tongue $\ddagger$.

* Bhélupur áa, in the suburbs of Benares; is esteemed holy, as the place of his nativity.
$t$ Samét sic'hara, called in Major Rennel's map Parsonaut, is. situated among the hills between Bihar and Bengat. ${ }^{\text {. Its holiness is }}$ great in the estimation of the Jainas: and it is said to be visited by pilgrims from the remotest provinces of India,
$\ddagger$ This Pracrit, 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 Sáraswata Bralhmens (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 Pali of Eeylon.

According to this authority, the last Tirt'hancara, 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 $8 \frac{1}{2}$ months of it remained. He was at first conceived by Déva'nanda, wife of Rishabhadatta, a Bráhmána inhabiting Bráhmanacundagráma, a city of Bháratavarsha, in Jambudwipa. The conception was announced to her by dreams. Indra *, or 'Sacra, who is the presiding deity on the south of Méru, and abides in the first range of celestial regions, called Saud'harma, being apprized of MaHA'víra'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 Bráhmaina, Indra commanded his chief attendant Harinaigemeshi, to remove the fetus from the womb of Déva'nanda' to that of Trisala, wife of Sidd'ha'rt'ha, a prince of the race of Icshwa'cu, and of the Caisyapa family. This was accordingly executed; and the new conception was announced to Trisala' by dreams; which were expounded by soothsayers, as foreboding the birth of a future Jina. In due time, he was born; and his birth celebrated with great rejoicings.

His father gave him the name of Vard'hamána. But he is also known by two other names; Sramana and Mahávíra. His father has similarly three appellations, Sidd'ha'rt'ha, Sreya'nsa, and Yas'aswí; and his mother likewise has three titles, Trisala, Vidéhadinna', and Prítica'rin'i. His paternal uncle was Supárs'wa, his elder brother, Nandi-

[^105]vardihana, his sister (mother of Jamaili) Sudarsana: His wife was Yasóda', by whom he had a daughter, (who became wife of JAMA'LI, named Anójua and Priyadarśaná. His grand-daughter was called 'Se'shavatí and Jasóvatí.

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 applauses 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 Jina, being worthy of universal adoration, and having subdued all passions ${ }^{*}$; being likewise omniscient and allseeing: 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 Hastipála, in the city of Páwápurí, or Pápápurit $\dagger$; and is dated 3 years and $8 \frac{1}{2}$ months before the close of the fourth age, (called Duc'hamá suc'hamá) in the great period named avasarpini. The author of the Calpasitra mentions, in several places, that, when he wrote, 980 years had elapsed since this apotheosis $\ddagger$. According to tradition, the death of the last Jina happened more than two thousand four hundred years

* So the commentator expounds both terms.
+ Near Rajagriha, in Bihár. It is accordingly a place of sanotity. Other holy places, which have been mentioned to me, are Champápúrí, near Bhágalpür, Chandrávati distant ten miles from Benares. and the ancient city Hastinápura, in Hindustan: also Satrunjaya, said to be situated in the west of India.
$\ddagger$ Samanassa Bhagaväu Maha'bírassa Jàva duhkha Hínassa Navabása Sayàin Bicivantäin dasamassaya Bása sayassa ayam Así imé sambach'bare Cálé gach'hai. Nine hundred years have passed since the adorable Mahábíra became exempt from pain; and, of the tenth century of years, eighty are the time which is now elapsed.
since; and the Calpasutra 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 Gañad'haras, or Gan'ád'hipas. The last Jina had nine such classes of followers, under eleven disciples. Indrabhúti, Agnibhúti, Váyubhúti, Vyacta, Suduarma, Mandicarutra, Mauryaputba, Acampita, Achalabhra'ta', Méta'rya, Prabha'sa. Nine of these disciples died with Mahávíra; and two of them, Indrabhúti and Sudiharma, survived him, and subsequently attained beatitude. The Calpasútra adds, that all ascetics, or candidates for holiness, were pupils in suecession from Sudharma, none of the others having left successors. The author then proceeds to trace the succession from Sudharma to the different Sáchiás, 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 Jainas, are briefly explained in Hémachandra'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 Aeasarpini and Utsarpiní, adding that the whole period is completed by twenty cótís of cotís of Ságaras; or $2,000,000,000,000,000$ oceans of years. I do not find, that he any where explains the space of time

[^106]denominated Ságara, 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 yojana every way, is a Palya; and that repeated ten cótís of cótís of times*, is a Ságara.

- Each of the periods, above-mentioned, is stated by Hémachandra, as comprizing six Aras; 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 (ecántasuhcha) through intermediate gradations, to extreme misery (ecainta duhc'ha). 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 Palyas; their stature was one, two, or three leagues (Garyutis'); 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

[^107]prevailing sects of Hindus, absurd as these are in their fables.

In his third chapter, Hemachandra, having stated the terms for paramount and tributary princes, mentions the twelve Chacravartis, and adds the patronymics and origin of them. Bharata is surnamed Árshabhi, or son of Ríshabha; Maghavan is son of Vijaya; and Sanatcuma'ra, of Aswaseina. 'Sa'ntr, Cunt'hu and Ara are the Jivas so named. Sagara is described as son of Sumitra; Súbhúma is entitled Cártavírya; Padma is said to be son of Padmóttara; 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 Vasudevas, and Crishnas. Here Triprisht'a is mentioned with the patronymic Pra'jápatya; Dwiprǐht'a is said to have sprung from Brahme; Swayambiú is expressly called a son of Rudra; - and Purushóttama, of Sóma, or the moon. Purushasinha is surnamed 'Saivi, or son of 'Siva; Purushapundaríca, is said to have sprung from Maha'siras. Datta is termed son of Agnisinha; Na'ra'yana has the patronymic Da'sarat'hi (which belongs to Ra'machandra): and Crishina is described as sprung from VASUDE'va.

Nine ether persons are next mentioned, under the designation of Sucla Balas, viz. 1 Achala. 2 Vijaya. 3 Bhadra. 4 Suprabha. 5 Sudarsana. 6 Ananda. 7 Nanda. 8 Padma. 9 Ráma.

They are followed by a list of nine foes of Vishnu: it corresponds nearly with one of the lists noticed by Major Mackenzie, viz. 1 As'wagríva, 2 Táraca, Prahlida. 8 The king of Lancá (Rávania). 9 The king of Magad'ha (Jara'sand'ha).

It is observed, that, with the Jinas, these complete the number of sixty-three eminent personages, viz. 24 Jinas, 12 Chacravarti's, 9Vásudévas, 9 Baladéras, and 9 Prativásudévas.

It appears, from the information procured by Mafor Mackenzie, that all these appertain to the heroic history of the Jaina writers. Most of them are also well known to the orthodox Hindus : and are the principal personages in the Puran'as.

Hémachandra subsequently notices many names. of princes, familiar to the Hindus of other sects. He begins with Prǐthu son of Véna, whom he terms the first king: and goes on to Ma'ND'Ha'ta', Hariśchandra; Bharata son of Dushyanta, \&c. Towards the end of his enumeration of conspicuous princes, he mentions Carn'a, king of Champá and Anga; Hála or Sálava'hana; and Cumárapála, surnamed Chaulucya, a royal saint, who seems, from the title of Paramárhata, to have been a Jaina, and apparently the only one in that enumeration.

In a subsequent part of the same chapter, Hemaehandra, (who was himself a theologian of his sect, and author of hymns to JINA *, ) mentions and discriminates the various sects; viz. 1st, A'rhatas, or Jainas. 2ndly, Saugatas, or Baudd'has, and, 3dly, six philosophical schools, viz. 1st. Naiyáyica; 2d. Yóga; 3d, Cápilas Sánc’hya; 4th. Vaiséshica; 5th.

[^108]Värhaspatya, or Nástica; and 6th. Charroaca, or Locayata. The two last are reputed atheistical, as denying a future state and a providence. If those be omitted, and the two Mimánsás inserted, we have the six schemes of Philosophy familiar to the Indian circle of the sciences.

The fourth chapter of Hémachandra'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 (Varsha) named Bharata, Airávata, and Vidéhá, to which he adds Cura; noticing also other distinctions familiar to the Hindus of other sects, but explaining some of them according to the ideas of the Jaincs. - Aryavarta, he observes, 'is the native land of Jinas, Chacris, and Ardd'hachacri's, situated between the Vind'hya and Himádri mountains.' This remark confines the theatre of Jaina history, religious and heroic, within the limits of Hindustán proper.

A passage, in Bha'scara's treatise on the sphere, will suggest further 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 Baudd'has, (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 $\dagger$ ?

[^109]The commentators * agree that the Jainas are here meant: and one of them remarks, that they are described as 'naked sectaries, \&cc.' Because the class of Digambaras is a principal one among these people.

It is true that the Jainas do entertain the preposterous notion here attributed to them : and it is also true, that the Digambaras, among the Jainas, are distinguished from the Súclámbaras, 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 Paramahansa, also disuse 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 $\dagger$. 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 suppose to be a flat surface, is bounded by a circle, of which the diameter is one raju $\ddagger$. The

[^110]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. These seven hells are Ratna prabhá, Sancara prabhá, Bálućá prabhá, Panca prabhá, Dhúman prảbhá, Tama prabhá, Tamatama prabhá. The upper spindle is also seven rajus high; and its greatest breadth is five rajus. Its summit, which is $4,500,000$ Yojanas wide, is the abode of the deified saints: beneath that are five Vi mánas, or abodes of gods: of which the centre one is named Saroárt'hasidd'ha: it is encompassed by the regions Aparäjita, Jayanta, Vaijayanta, and Vijaya. Next, at the distance of one raju from the summit, follow nine tiers of worlds, representing a necklace (graivéyaca, ) and inhabited by gods, denominated, from their conceited pretensions to supremacy, Ahamindra. These nine regions are, Aditya, Prítincara, Sómanasa, Sumanasa, Suvisála, Sarvatóbhadra, Manórama, Supravadd'ha, and Sudars'ana.

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 Vimánas, or abodes of various classes of gods, called by the general name of Calparoásis. These worlds, reckoning from that nearest the earth; are, Saud'ha$m a$ and I'śana; Sanatcumdra and Mahéndra; Brahme; Lántaca; S'ucra; Sahasrára; Anata and Pránata; Aruna and Achyuta.

The sect of Jina distinguish four classes of deities, the Vaimánicas, Bhuvanapatis, Jiótishís, and Vyantaras. The last comprises eight orders of demigods, or spirits, admitted by the Hindus in general, as the
gods are able to travel in six months, at the rate of 2,057,152 Yojanas, (of 2000 crós $a$ each,) in the twinkling of an eye.

Rácshasas, Písáchas, Cinnaras, \&c. supposed to range over the earth. The preceding class (Jyótishis), comprehends five orders of luminaries; suns, moons, planets, constellations and stars, of which more hereafter. The Vaimánicas belong to the various Vi mánas, in the twelve regions, or worlds, inhabited by gods. The class of Bhwvanapati includes ten orders, entitled Asuracumára, Nägacumára, \&č;; 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 Jambúdwipa, with the mountain Sudars'a Méru in the centre. It is encompassed by a ring containing the salt ocean; beyond which is the zone, named Dhátucídwipa; similarly surrounded by a black ocean. This again is encircled by Pushoaradwípa; 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, Dhátusidwipa contains two mountains, similar to Suméru, named Vijanga and Achala; and Pushcara contains two others, called Mandírí and Vidyunmálí.

The diameter of Jambúdweípa being 100,000 great Yójanas*, if the 190th part be taken, or $526 \frac{6^{6}}{19}$, we have the breadth of Bharata varsha, which occupies the southern segment of the circle. Airáaata is a similar northern segment. A band (33648 $\frac{4}{19}$ Yójanas wide) across the circle, with Sudars'a Méru in the middle of it, is Vidéha varsha, divided by Méru (or by four peaks like elephant's teeth, at the four corners of that

[^111]vaft mountain) into eaft and weft Tideha. These three regions, Bharata, Airávata, and Videhha, are inhabited by men who practise religious duties. They are denominated Carmachuimi, and appear to be fur nished with distincts sets of Tirthancaras or saints entitled Jina. The intermediate regions, north and south of Méru, are bounded by four chains of mountains; and intersected by two others: in such a manner, that the ranges of mountains, and the intermediate vallies, increase in breadth progressively. Thus Himaval is twice as broad as Bharata varsha (or $\left.1052 \frac{12}{\gamma} \begin{array}{l}19\end{array}\right)$; The valley beyond it is double its breadth $\left(2105 \frac{5}{19}\right)$; the mountain Maháhimuvat, is twice as much $(4 \stackrel{\gamma}{10} \stackrel{10}{19})$ : its valley is again double $\left(8421 \frac{1}{19}\right)$; and the mountain Nishad ha has twice that breadth $\left(16842 \frac{2}{\frac{2}{9}}\right)$. The vallies between these mountains, and between similar ranges reckoned from Airávata (viz. Sichari, Racmi, 'and Nila), are inhabited by giants (Yugala), and are denominated Bhórabluími. From either extremity of the two ranges of mountains named Himavat and Sichari, a pair of tusks project over the sea; each divided into seven countries denominated Autara-dwipas. There are consequently fifty-six sich; which are called Cubhógakhúmi, being the abode of evil doers. 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 Suméru; and suppose three times the period of a planet's, appearance to be requisite for it to pass round Suméru, and return to the place whence it emerges. Accordingly they allot Vor. IX.
two suns, as many moons, and an equal number of each planet, star, and constellation, to Jambridwipa; 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 Dhătuci drwipr; 21 times as many, or 42 of each, to the Cálodad'hi; and 72 of each to Pushcara drwipa.

It is this notion, applied to the earth which we inhabit, that $\mathrm{Bh}^{\prime}$ ascara 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 Munís'wara and Lacshmída'sa. But the Vásaná Bháshya reverses the fish; placing his head towards the west at sun set, when the sun is near Bharúni.

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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 Zodiack. 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 Zodiack, 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 nacshatras, 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 labours of those, who hare 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 ascertainment 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 labour bestowed upon it, as obvioufly effential to wards a knowledge of Indian astronomy, and as tending to determine another question: namely, whether the Indian and Arabian divisions of the Zodiack had, a common origin. Sir Wifllam Jones though?
that they had not: I incline to the contrary opinion. The co-incidence 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 Zodiack 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 Colures, compared to constellations, which mark divisions of the Zodiack in their astronomy; but no similar trace remains of the use of the lunar mansions, as divisions of the Zodiack, among the Arabs, in so very remote times.

It will be found, that I differ much from $\mathrm{Sin}_{\text {I }}$ Wizmam Jones in regard to the stars constituting the asterisms of Indian astronomy. On this, it may be sufficient to remind the reader, that Sir Wilifam Jones stated only a conjecture founded on a consideration of the figure of the nacshatra and the number of its stars, compared with those actually situated near the division of the ecliptick, to which the nacshatra gives name. He was not apprized, that the Hindus themselves place some of these constellations far out of the limits of the Zodiack.

I shall examine the several nacishatras and lunar mansions in their order; previously quoting from the Hindu astronomers, the positions assigned to the principal star, termed the yógatárá. This, according to Brahmegupta, (as cited by Lacshmídasa in his commentary on the Siromanti,) or according to the Brahmesidd hínta (cited by Bru'd'hara), is the brightest star of each cluster. But the Súryasidd'hánta specifics the relative situation of the Yógatárá in respect
of the other stars; and that does not always agree with the position of the most conspicuous star.

The number of stars in each asterism, and the figure under which the asterism is represented, are specified by Hindu astronomers: particularly by Srípats in the Rotnamálá. These, with the positions of the stars rèlatively to the ecliptick, are exhibited in the annexed table. It contains the whole purport of many obscure and almost enigmatical verses, of which a verbal trans. lation 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 Súryasidd'hánta, Sirór ani, and Grahalághava. They have been carefully examined, comparing at the same time several commentaries. The Ratnamálá of S rípati 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 Munisifara, and is confirmed in most instances by the Muhirta Chintámeni, The same authority, confirmed with rare exceptions by Vasish't'ha, Sa'calya, and the A bharan'a 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 Sidd'hánta siróman'i, by Munis'wara, adduces from that author a statement of the positions of the stars; and remarks, that it is founded on the Brahmesidd hanta, contained in the Vishmudhermottara*. Accordingly, I have found the same pas-

[^112]sage in the Brahmesiddhanta, and verified it by the gloss entitled Visaná; and I, therefore, use the quotation without distrust. Later authorities, whose statements coincide exactly with some of the preceding (as Camalácara in the Tatwavivéca) would be needlessly inserted: but one (Mun'íswara in the Sidd'hanta sarvabhauma), 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 Suryasidd'hanta only hints briefly, that ' they astronomer should frame a sphere, and examine the apparent longitude and latitude *? Commentators $\uparrow$, remarking on this passage, describe the manner of the observation: and the same description occurs, with little variation, in commentaries on the 'Siroman' $\hat{*}$ *. They direct a spherical instrument (Golayantra) to be constructed, according to instructions contained in a subsequent part of the text. This, as will be hereafter shewn, 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 Vedhavalaya 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 Golayantra 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 Révatî through a sight fitted to an orifice at the centre of the sphere; and

[^113]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 sight, at the yoga star of $A s^{\prime}$ winiz, 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 (Jhruvaca) in degrees: and the number of degrees on the moveable circle of declination, from the same intersection to the place of the star, is its latitude (vicshepa) North or South *.

The commentators $\uparrow$ further remark, that 'the la titude, so found, is (sphul'a) apparent, being the place intercepted between the star and the ecliptick, on a circle passing through the poles; but the true latitude (asphutá) 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 ecliptick and a circle of declination passing through the star: differing, consequently, 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 Surya sidd hánta, are expressly affirmed to be adapted to the time when the equinox did not differ from the origin of the ecliptick in the beginning of Mesha.

It is obvious, that, if the commentators have rightly

[^114]understood the 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 ecliptick, 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 Sidd'hánta sundara cited and expounded by the author of the Sidd'hánta sárvabhauma. 'A tube, 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 ecliptick 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 ecliptick. 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 ecliptick.'

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 given in the Siddilianta

Table of Nacshatras or Asterisms marking the Moon's Path.

sairvabhazma: 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 Surya sidd' hánta, with little variation, by successive authors, to have been made about the time, when the vernal equinox was near the first degree of Misha*. 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 Nacshatras 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 ( $\alpha$ 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 $\uparrow$. Bailey conjectures, as the intermediate stars of the sixth magnitude are too small to have designated the pole, that $x$ Draconis was the star meant by Eudoxus, which had

[^115]+ Hipearches. Comment. on Aratus. Lib. 1. p. 179,
been at its greatest approximation to the pole, little more than four degrees from it, about 1236 years before Christ. Ir must have been distant, between seven and eight degrees of a great circle, when Eudoxus wrote. Possibly the great star in the Dragon (Draconis), which is situated very near to the circle described by the north pole round the pole of the ecliptick, 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 Bailly'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 Nacshatras with the Manzils of the moon, or lunar mansions.
I. As'wini, now the first Naeshatra, but anciently the last but one, probably obtained its present situation at the head of the Indian asterisms, when the beginning of the Zodiack was referred to the first degree of Mésha, or the Ram, on the Hindu sphere. As measuring a portion of the Zodiack, it occupies the first $13^{\circ} 20^{\prime}$ of Mésha: and its beginning follows immediately after the principal star in the last Nacshatra (Rivati), reckoned, by some exactly, by others nearly, opposite to the very conspicuous one, which forms the fourteenth asterism. Considered as a constellation, As'wini compresses three stars figured as a horse.'s head; and the principa!, which is also the northern one, is stated by all ancient authorities, in $10^{\circ} \mathrm{N}$. and 8o E. from the beginning of $M_{f s h i a}$.

The first Manzil, or lunai mansion according to the Arabs, is entitted Sheratar, (by the Persians cor-
ruptly called, as in the oblique case, Sheratain); and comprises two stars of the third magnitude on the head of Aries, in lat. $6^{\circ} 36^{\prime}$, and $7^{\circ} 51^{\prime}$, N. and long. $26^{\circ} 13^{\prime}$, and $27^{\circ} 7^{\prime}$ :. (Hyde's Ulughbeg, p. 58). With the addition of a third, also in the head of the Ram, the asterism is denominated Asha át. The bright star of the 2 d or 3 d magnitude which is out of the figure of the Ram, according to Ulugh beg, but on the nose according to Hipparchus cited by this author from Ptolemy, is determined Nátih: it is placed in Lat. $9^{\circ} 30^{\prime} \mathrm{N}$. and Long. $1^{5} 0^{\circ} 43^{\prime}$, and is apparently the same with the principal star in the Indian asterism; for Murammed of Tizin, in his table of declination and right ascension, expressly terms it the first star of the Sheralain. (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 ( $\alpha \beta$ and $\gamma$ ) for the Indian constellation Aswini. The first star of Aries ( $\alpha$ ) was also shewn to Dr. Hunter, at Ujjayini, for the principal one in this asterism; and Mr. Davis (As. Res. vol. 2. p. 2:26.) states the other two, as those which were pointed out to him by a skilful native astronomer, for the stars that distinguish As'rwini. 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 $A^{\prime}$ wini in, and near, the head of the Ram; and it is evident, that the first Nacshatra of the Hindus is here rightly determined, in exact conformity with the first Lunar mansion of the Arabs; although the longitude of a Arietis exceed, by half a degree, that which is deduced, for the end of $A$ wim, from the supposed situation of the Virgin's spike opposite to
the beginning of this Nacshatra; and although its circle of declination be $13^{\circ}$ instead of $8^{\circ}$ from the principal star in Révati.
II. Bharan'i, 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 Nacshatra in $12^{\circ} \mathrm{N}$. The second Manzil, entitled Butain, is placed by Ulugh Beg (Hyde, p. 61.) in Lat. $1^{\circ} 12^{\prime}$ and $33^{\circ} 12^{\prime}$; and this cannot possibly be reconciled with the Hindu constellation. But Muhammed of Iizin (See Hyde's Commentary, P. 97), assigns to the bright star of Butain a declination of $23^{\circ} \mathrm{N}$. exceeding by nearly $2^{\circ}$ the declination allotted by him to Nátilh, or his first star in Sheratain. This agrees with the difference between the principal stars of $A s^{\prime}$ wini and Bharan'i; 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 Bharan'i 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 Nacshatra, 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 shewing, as will be done in the progress of this comparison, that the Nacshatras are not restricted to the limits of the Zodiack.
III. Crittica, now the third, but formerly the first, Nacshatra, consists of six stars figured as a knife or razor, and the principal and southern star is placed in $4 \frac{1}{2}^{\circ}$ or $5^{\circ} \mathrm{N}$. and in 65 sixths of degrees (or $1^{\circ} 50^{\prime}$ )
from its own commencement, according to the Surya sidd'hanta, or $37^{\circ} 28^{\prime}$ to $38^{\circ}$ from the beginning of Mésha, according to the Sidd'hánta siromani, and Grahalághava, respectively. This longitude of the circle of declination corresponds nearly with that of the bright star in the Pleiades, which is $40^{\circ}$ of longitude distant from the principal star of Ricvati.

The stars, indicated by Ulugh beg for Thurayyá, 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 Nacshatra. If any doubt existed, Mythology might assist in determining the question; for the Criuticías are six nymphs, who nursed Scanda, the God of war, named from these, his foster mothers, $\mathrm{CA}^{\prime}$ RTICE' YA or Shánmátura.
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 Rohini $t$, placed in $4 \frac{1}{2}^{\circ}$ or $5^{\circ} \mathrm{S}$. and $49 \frac{1_{2}^{\circ}}{}{ }^{\circ}$ E. by the Hindu writers on Astronomy. This Nacshatra, figured as a wheeled carriage, comprises five stars, out of the seven which the Greeks narned 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 ap $\gamma \delta \leqslant$ Tauri, agreeably to Mons. Bailily's conjecture (Ast. Ind. p. 129).

[^116]Hindu astronomers define a point in this constellation, of some importance in their fanciful astrology. According to the Surva sidd hánta, when a planet is in the 7 th degree of Vrisha (Taurus) and has more than two degrees of south latitude, or, as commentators expound the passage, $2^{\circ} 40^{\prime}$; the planet is said to cut the cart of Rolinini. This is denominated sacat'abhiúa, or the section of the wain. Lalla and the Grahalághava 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 nacshatras distant from Punarvasu, and might happen in regard to the rest during another Yuga), the world is involved in great calamity. Accordingly, the Puranas contain a legendary story of Dasarat'ha's dissuading Satum from so traversing the constellation Rohini.
V. Mriggásiras 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 $10^{\circ} \mathrm{S}$. 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 ( $24^{\circ}$ to $25 \frac{1^{\circ}}{}{ }^{\circ}$ ) from Criltica corresponds with sufficient exactness; and so does the longitude of its circle of declination ( $62^{\circ}$ to $63^{\circ}$ ) from the end of Revati; since the true longitude of $\lambda$ Orionis, from the principal star in Revati ( 3 Piscium), is $63 \frac{1}{2}^{\circ}$. It was 2 mis* take to suppose this asterism to comprise stars in the feet of Gemini, or in the Galaxy (As. Res. vol, 2. p. 298).
VI. A'rdra, the sixth Nacshatra, consists of a single bright star, described as a gem, and placed in $9^{\circ} \mathrm{S}$. by one authority, but in $11^{\circ}$ by others, and at the distance of $45^{\circ}$ to $4^{\circ}$ in longitude from the last asterism. This indicates the star in the shoulder of Orion ( $\propto$ Orionis) ; star in the knee of Pollux (As. Res. 2. p. 298).

The sixth lunar mansion is named by the Arabs, Hanah; 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). Muhamade of Tizin allots five stars to this constellation; and the Kamus, among various meanings of Hanah, says, that it is a name for five stars in the left arm of Orion; remarking, also, that the lunar mansion is named Tahayi, comprising three stars called Tahyat. Either way however, the Indian and Arabian asterisms appear in this instance irreconcileable.
VII. The seventh Nacshatra, entitled Punarvasu, 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 stated by astronomers as including four stars, among which the principal and eastern one is 300 or $32^{\circ}$ from the fifth asterism; but placed by all authorities in $6^{\circ} \mathrm{N}$. This agrees with ( $\beta$ Geminorum) one of the two stars in the heads of the twins, which together constitute the seventh lunar mansion Ziraa; according to Muhammed of Tusi and Muhammed of Tizin and other Arabian authorities (Hyde on Ulugh beg, p. 43).

It appears from a rule of Sanscrit grammar *, that Panarvasu, 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 Pumarvasu originally comprised two stars, though four are now assigned to it. Accordingly, that number is retained in the Sacalya sanhita.

[^117]IT may be further observed, that the seventh lunar mansion of the Arabs is named Ziraá ul ased according to Juhari and others cited by Hyde (Com. on Ulugh abeg, 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 Willifam Jones's supposition (As. Res. vol. 2. p. 299), stars in the heads of the twins ; viz. $\alpha, \beta$, Geminorum; and which were indicated to Dr. Hunter by a Hindu astronomer at Ujjayin; to which, perhaps, $\theta$ and $\tau$ 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 120 or $13^{\circ}$ distant from the seventh asterism, being placed by Hindu astronomers in $106^{\circ}$ of Iongitude. This is evidently 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 $\delta$ Cancri, which are perhaps $\gamma$ and $\beta$ 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, A's'lésha, contains five stars figured as a potter's wheel, and of which the principal or eastern one is placed in $7^{\circ} \mathrm{S}$. and, according to diffurent tables, $107^{\circ}, 108^{\circ}$, or $109^{\circ}$, E. This appears to be intended for the bright star in the southern claw of Cancer (a 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 Muhammed of Tizín in $24^{\circ}$ of N. declination (Hyde's Com. p. 101). The Jesuit missionaries, if rightly quoted by Costard (Hist. of Astr. p. 51) made As'léshá correspond with the bright stars in the heads of Castor and Pollux, together with Procyon." This is evidently erroneous. Sir William Jones's supposition, that As'léshá nuight answer to the face and name of Leo, nearly concurs with the Arabian determination of this lunar mansion, but disagrees with the place assigned to the stars by Hindu astronomers. Bailly committed the same mistake, when he affirmed, that As'lésháa is the Lion's head. (Astr. Ind. p. 328).
X. The tenth asterism Mag'ha contains, like the last, five stars; but which are figured as a house. The principal or southern one has no latitude, and, aecording to all authorities, has $129^{\circ}$ longitude. This is evidently Regulus ( $x$ Leonis) : which is exactly $129^{\frac{20}{3}}$ distant from the last star in Revali.

According to the Jesuits cited by Costard, Mag'ha answers to the lion's mane and heart ; and the tenth lunar mansion of the Arabians, Jebhah, comprises three (some say four) stars, nearly in the longitude of the Lion's heart (Hyde's Ulugh Beg, p. 74. and Com. p. 46). In this instance, therefore, the Indian and Arabian divisions of the Zodiack 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 $\alpha \gamma \zeta \eta$ and Leonis.
XI. Two stars, constituting the eleventh Nacshatra, or preceding Phalguní, which is represented by a couch or bedstead, are determined by the place of the chief star (the northernmost according to the Surya sidd:Voz. IX.
hanta) in 120 N . and $144^{\circ} \mathrm{E}$. or, according to Braft. megupta, the Siróman' $i$ and the Grahalag'hava $147^{\circ}$ or $148^{\circ} \mathrm{E}$. They are probably $\delta$ and $\theta$ Leonis; the same which form the lunar mansion Zubrah or Khertan (Hyde's Ulugh Beg, p. 76. and Com. p. 47).

It may be conjectured, that Brahmegupta and BHA'SCAKA selected the southern for the principal star ; while the Surya sidd hanta took the northern: hence the latitude, stated by those 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 suppor sition.
'XII. Two other stars, constifuting the twelfth Nac* shama, or following P'halguni, which is likewise figured as a bed, are ascertained by the place of one of them (the northernmost) in $13^{\circ} \mathrm{N}$. and $155^{\circ} \mathrm{E}$. This indicates $\beta$ Leonis; the same which singly constitutes the Arabian lunar mansion S'erfah (Hyde's Ulugh Beg, p. 78. and Com. p. 47.), though Muhammed of Tizin 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 Junes refers to the preceding Nacshatra, the. principal star of this asterism.
XIII. Hasta, the thirteenth Nacshatra, 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 $11^{\circ} \mathrm{S}$. and $170^{\circ} \mathrm{E}$. This can only belong to the constellation Corvus: and accordingly five stars in that constellation ( $\alpha \beta \gamma^{\delta}:$ Corvi), have been pointed out to me by Hindu astronomers for this Nacshatre.

Awroa, 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 wíng (Hyde's Ulugh Beg, p. 80).

In this instance the Indian and Arabian divisions of the Zodiack have nothing in common but the number of stars and their agreement of longitude. It appears, however, from a passage cited from Sufi by Hydr (Com. p. 82), that the Arabs have also considered the constellation of Corvus as a mansion of the moon.)
XIV. The fourteenth Nacshalra, figured as a pearl, is a single star named Chitra. It is placed by the Surya sidd hanta in $2^{\circ} \mathrm{S}$. and $180^{\circ} \mathrm{E}$; and by Brahmegupta, the Sirómani and Graha Lag'hava, in: $1 \frac{33^{\circ}}{}{ }^{\circ}$ or $2^{\circ} \mathrm{S}$. and $183^{\circ} \mathrm{E}$. This agrees with the virgin's spike ( $\alpha$ Viro ginis;) and Hindu astronomers have always pointed out that star for Chitra. The same star constifutes the fourteenth lunar mansion of the Arabs, named from ir Simac ul aázil. Le Gentil's conjecture*, that the fourteenth nacshatra comprises the two stars d and $\varepsilon$ Virginis was entirely erroneous. And Mons. Bailix was equally incorrect in placing $\theta$ Virginis in the middle of this asterism (Astr. Ind. p. 227).
XV. Another single star constitutes the fifteenth Nacshatra. Swati, represented by a coral bead. The Surya siddhamta, Brahmigupta, the Siromani and Graha lag'hava, concur in placing it in $37^{\circ} \mathrm{A}$. They differ one degree in the longitude of its circle of dectination; three of these authorities making it $199^{\circ}$, and the other $198^{\circ}$.
Thr only conspicuous star, nearly in the sitnation thus assigned to Swath, !and the Indian astronomera

> - BasLLY Ast, Ind, p. 227,
> $\frac{72}{2}$
would hardly travel so far from the Zodiack to seek an obscure star;) is Arcturus, $33^{\circ} \mathrm{N}$. of the ecliptick in the circle of declination, and $198^{\circ} \mathrm{E}$. from the principal star of Révati. I am therefore disposed to believe, that Swati has been rightly indicated to me by a native ástronomer who pointed out Arcturus for this Naeshatra. The longitude, stated by Mun'is'wara (viz. $1 \frac{10}{2}$ less than Chitra), indicates the same star: but, if greater teliance be placed on his latitudes, the star intended may be $\varepsilon$ Bootis. At all events, Mons. Bailly mistook, when he asserted, on the authority of Le Gentil, that the fifteenth Naєshatra is marked by a Virginis; and that this star is situated at the beginning of the Nacshatra (Ast. Ind. p. 139 and 227).

The Indian asterism totally disagrees with the lunar mansion Ghafr, 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. Visaciha, the sixteenth Nacshtatra, consists of four stars described as a festoon. Authorities differ little as to the situation of the principal and northernmost star : placing it in $1^{\circ}$, $1^{\circ} 20^{\prime}$, or $1^{\circ} 30^{\prime} \mathrm{S}$. and io $212^{\circ}, 212^{\circ} 5^{\prime}$ or $213^{\circ} \mathrm{E}$. The latitude seems to indicate the bright star in the southern scale ( $\alpha$ Libræ) , though the longitude disagree; for this suggests a remote star (possibly $x$ Libræ). I apprehend the first to be nearest the truth; and hence conclude the four stars to beav Libræ and $\gamma$ Scorpii.

The sixteenth lunar mansion named Zubanah or Zubanijah, is according to Muhammed of Tizin (Hyde, Com. 04), the bright star in the northern scale ( $\beta$ Libræ), which Sir Wiliiam Jones supposed to be the fifteenth Nacshatra.

Father Souciet, by whom Corona Borealis is.
stated for the asterism Visaciha, is censured by Sir W. Jones, under an impression, that all the Nacshatras must be sought within the Zodiack. The information, received by Father Souciet, does appear to have been erroneous; but the same mistake was committed by a native astronomer, who showed to me the same constellation for Visácichí; and the Nacshatras are certainly not restricted to the neighbourhood of the ecliptick.
XVII. Four stars, (or, according to a different reading, three,) described as a row of oblations, that is, in a right line, constitute the seventeenth Naishatra named Anurád'há. Here also, authorities differ little as to the situation of the chief and middlemost star ; which is placed in $3^{\circ}$, or $2^{\circ}$, or $1^{\circ} 45^{\prime} \mathrm{S}$. and in $224^{\circ}$ or $224^{\circ} 5^{\prime} \mathrm{E}$. This must intend the star near the head of the scorpion ( $\delta$ Scorpionis); and the asterism probably comprises $\beta \delta \pi$ and ${ }_{\rho}$ Scorpionis.

The seventeenth lunar mansion of the Arabs called Ictil or Itlithijebhah, contains four (some say three, and others six ${ }^{*}$,) stars lying in a straight line. Those, assigned by Ulugh Beg (Hyde, p. 87.) for this mansion, are $\beta \delta \nu \pi$ Scorpionis.

Here the Indian and Arabian divisions appear to coneur exactly ; and Sir W. Jones (As. Res. 2. p. 299), as well as the Missionaries cited by Costand (Hist. Astr. p. 51), have apparently understood the same stars; though the latter extend the Nacshatra to the constellation Serpentarius.
XVIII. Jyés'hi'ha, the eighteenth Nacshatra, comprises three stars figured as a ring. In regard to this,

[^118]also, authorities are nearly agreed in the position of the principal and middiemose star, placed in $4^{\circ}, 3 \frac{1}{2} \mathrm{o}$, or $3^{\circ} \mathrm{S}$. and in $229^{\circ}, 229^{\circ} 5^{\prime}$, or $230^{\circ} \mathrm{E}$. This position clearly indicates Antares or the Scorpion's heart (a Scorpionis); which is also the eighteenth lunar mansion named Kalb or Kalbul'akrab. The three stars of the Indian asterism may be $\alpha \sigma \& \tau$ Scorpionis.
XIX. The nineteenth asterism, Múla, represented by a Lion's tail, contains eleven stars, of which the characteristick one, the easternmost, is placed in $9^{\circ}$, $8 \frac{1}{2}^{\circ}$. or $8^{\circ} \mathrm{S}$. and in $241^{\circ}$ or $242^{\circ}$. E. Although the latitude of 0 Scorpionis be five degrees too great, there seems little doubt, that either that, or the star east of it marked $\imath$, 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, viz. $s \mu \zeta \eta \theta_{6}$ $x \lambda \nu$ and $\nu$ Scorpionis.
XX. The twentieth Nacshatra, entitled preceding A'shad'ha, figured as an elephant's tooth, or as a couch, cossists of two stars, of which the most northern one is placed in $5 \frac{1}{2}^{\circ} 5 \frac{1}{3}^{\circ}$ or $5^{\circ} \mathrm{S}$. and $254^{\circ}$ or $255^{\circ} \mathrm{E}$. This suits with Sagittarii, which is also one of the stars of the twentieth lunar mansion called Nääm. It consists of four, or, according to some authorities, of eight, stars. The Indian asterism seemingly comprises d\&: Sagittarii.
XXI. Two stars constitute the twenty- first asterism, named the subsequent A'shád'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 $5^{\circ} \mathrm{S}$. and $260^{\circ}$, or $261^{\circ} \mathrm{E}$. This agrees with a star in the body of Sagittarius ( $\tau$ Sagittarii), and the other star is perhaps the one marked $\zeta$.

THE twenty-first lunar mansion of the Arabians; named Baldah, comprises six stars, two of which are placed by Muhammed of Tizin in Declination $21 \%$ \&$16^{\circ}$. 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 (Hyde, Com. on Ulugh Beg, p. 9.) At all events, the Hindu and Arabian divisions appear, in this instance, to be but imperfectly reconcileable.
XXII. Three stars, figured as a triangle, or as the nut of the floating Trapa, form the twenty-second asterism, namied Abhyit; which, in the modern Indian astronomy, does not occupy an equal portion of the ecliptick with the other Näcshatras, but is carved out of the contiguous divisions. Its place (meaning that of its brightest star) is very remote from the Zodiack; being in $60^{\circ}$ or $62^{\circ} \mathrm{N}$. The longitude of its circle of declination, according to different authorities, is $265^{\circ}, 206^{\circ}$ $40^{\prime}$, or $268^{\circ}$. Probably the bright star in the Lyre is meant. It was shown to Dr. Hunter, at $U_{j j a y i m i ~ f o r ~}^{\text {for }}$ the chief star in $A b h i j i l$; 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 Nacshatra.
XXIII. S'ravania, the twenty-third Nacshiatra, represented by three footsteps, contains three stars, of which one, the middlemost, is by all authorities placed in $30^{\circ}$ N. but they differ as to its longitude ; the Surya sild hánta placing it in $280^{\circ}$; Brahmegupta and the Sirómani, in $278^{\circ}$; and the Grahalág'hava in $275^{\circ}$.

[^119]The assigned latitude indicates the bright star in the eagle, whence the three may be inferred to be $\alpha \beta$ and $\gamma$ Aquilæ.

The twenty-third mansion of the moon, called by the Arabs Balit, consists of two stars in the left hand of Aquarius. Consequently the Arabian and Hindu divisions are here at variance.
XXIV. D'hanish't'hú, the twenty-fourth asterism, is represented by a drum or tabor. It comprises four stars, one of which (the westernmost) is placed in 360 N . and, according to the Surya sidd hánta, Brahmegupta and the Siroman't, in $290^{\circ}$ E. though the Grahalag'hava state $286^{\circ}$ 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 $\alpha \beta \gamma$ and $\delta$ Delphini. The same constellation is mentioned by the Jesuit missionaries as corresponding to D'hanish'thá (Costard, p. 51): and there can be little doubt, that the ascertainment is correct. The longitude, stated by Mun'is'wara, (viz. 294 $12^{\prime}$ ) supports the conclusion, though his latitude ( $26^{\circ} 25^{\prime}$ ) be too small. To determine accurately the position of this Nacshatra is important, as the solstitial colure, according to the ancient astronomers, passed through the extremity of it, and through the middle of As'leshá.

The twenty-fourth mansion, called by the Arabs Sâud, comprises two stars in Aquarius ( $\beta$ and $\frac{\xi}{}$ Aquarii); totally disagreeing with the Hindu division.
XXV. Satabhishü, the twenty-fifth Nacskatra, 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. $320^{\circ}$.

This will suit best with $\lambda$ Aquarii. These hundred stars may be sought in the stream from the Jar, where Sir William Jonbs places the Nacshatra; and in the right leg of Aquarius.

Akhbiyah, 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 Murammed of Tizin's, that four stars are assigned to this mansion (Hyde, p. 99. and Com. p. 95.)

The Hindu and Arabian asterisus 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 240 N . and $325^{\circ}$ or $326^{\circ} \mathrm{E}$. The only conspicuous star, nearly in that situation, is the bright star in Pegasus (a Pegasi); and the other may be the nearest consideration ( $\zeta$ Pegasi). I should have considered $\beta$ Pegasi to be the second star of this Nacshatra, were not its yóga or chief star expressly said to be the most northerly. Mukaddim, the 26 th lunar mansion, consists of the two brightest stars in Pegasus ( $\alpha$ and $\beta^{*}$ ); and thus the two divisions of the Zodiack nearly concur.
XXVII. Two other stars constitute the 27 th lunar mansion nathed the subsequent Bhadrapada, They are figured as a twin, or person with a dou-

[^120]ble face, or else as a couch. The position of one of them (the most northerly) is stated in 260 or $27^{\circ} \mathrm{N}$. and $337^{\circ} \mathrm{E}$. I suppose the bright star in the head of Andromeda to be meant; and the otber star to be the one in the extremity of the wing of Pegasus ( $\gamma$ Pegasi). This agrees exactly with the 27 th lunar mansion of the Arabians, called Muakkher. For Ueugh 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. $359^{\circ} 50^{\prime}$. This clearly marks the star on the ecliptick in the string of the fishes ( $\zeta$ Piscium) ; and the ascertainment of it is important in regard to the adjustment of the Hindu sphere.

The Arabick name of the 28 th mansion, Risha, sig ${ }^{*}$ nifying a cord, seems to indicate a star nearly in the samie position. But the constellation, as described by Juhari cited by Golius, consists of a multitude of stars in the shape of a fish, and termed Betmilhut; in the navel of which is the lunar mansion : and Muham.. MED of Tizin, with some others, also makes this lunar mansion to be the same with Betmu'lhut, which appears, however, to be the bright star in the girdle of Andromeda ( $\beta$ Andromedx); though others describe it as the northern fish, extending, however, to the horns of the ram (Hyde's Com. p. 10, 35, and 96). 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 Arabians: but, in a few instances, they essentially differ. The Hindus have likewise adopted the division of the Ecliptick and Zodiack 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 Tahriru'lmejestit, the armillary sphere (Zat 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 within,

[^121]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 furn : 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 aperzures, 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 secondaxies 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.

[^122]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 observed), and the smaller circle within it, bearing the two sights, is turned, until the moon (or to any star intended to be observed), 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 longitude; and the arc of the secondary, between the aperture and the ecliptick, is the latitude of the moon on either side (North or South)."

The same instrument, as described by Montucla from the text of Ptolemy (1. 3. c. 2. ${ }^{\text {* }}$, consists of six circles: first, a large circle representing the meridian ; next, four circles united together, representing the equator, ecliptick and two colures, and turning within the first circle 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 ecliptick, which, as well as the meridian, is doubled.

According to Lalande, the astrolabe of $\mathrm{P}_{\mathrm{ta}}$ lemy, from which Tycho Brahe derived his equatorial armillary, consisted only of four circles : two placed at right angles to represent the ecliptick and

- Hist. des Mathem. 1. p. 301.
solstitial colure; a third turning on the poles of the ecliptick 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 Arichimedes is said to have devised to represent the phenomena and motions of the heavenly bodies; nor any sufficient hint of its coustruction $\downarrow$; nor does Cicero's account of the sphere exhibited by Posidonius $\ddagger$ suggesta 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 $\S$, and the time of Alhazen, who wrote a treatise of optics, in

- Lalande Astron. I. 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. Tusc. Quæs. I. 1 Nat. Deo. 2. 35.
$\ddagger$ Cic. Nat. Deo. 2. 34.
§ In the Hejira year 212, or A. D. 827, by Almazen ben Yuser with the aid of Sergius (Montucla, 2. p. 304); or rather by Ishax ben Honen, whose death is placed about the Hijira year 260 (D'Herbelot, p. 455). Aceording to the Cashfulzan, Ishak's version was epitomised by Hajai ben Yusee, by Thabif ben Karbah, and by Nasibuddin Tusi. Oiher versions, however, are mentioned: particularly, one by HAJAB, said to have been corrected first by Hunbe ben Ishaz, and afterwards by Thabit; another by Thabit himself; and a third by Muhí eex falhyah. A different account is likewise given of the earliest translation of the Almagest, which is ascribed to Abu Hisan and Salman, who are said to bave completed it, after the failure of other learned men, who had previously attempied the tranglation. Mention is also.
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 $\downarrow$, than the oldest of the Hindu writers whom I shall proceed to quote $\ddagger$.

The construction of the Armillary sphere is briefly and rather obscurely taught in the Surya sidd'hanta. The following is a literal translation.
" Let the astronomer frame the surprising structure of the terrestrial and celestial 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 the center, and
made of a version by Ibrahim ben Salat, revised by Huben. But none of these translations are anterior to the gth century of the Christian era.

- Adhibuit (Tycho) Armillare quoddam instrumentum, quod tamen compari ego positum, et adhibitum olim fuisse ante Tyehonem ab Alhazeno, lib. 7. opt. C. 1. prop, 15 et à Vitell. lib. 10. propos. 49. cujus instrumenti astronomicè collocati ope, atque usu, (vide instrumentum multiplex armillare apud Tycho, in Mechanicis Astronomix) eandem elevationem falsam 9 scrupulorum invenit, quam per alia, duo diverpa instrumenta, compererat.

Bestini Apiaria,
$\dagger$ He wrote his treatise on opticks and other works about the year 1190. Bigg. Dict.
$\ddagger$ Bhascara flourished in the middle of the twelfth century; being born, as he himself informs us, in the Saca year 1063, answering to A. D. 1114. But the Surya Siddihanta is more ancient.
exceeding the globe at both ends; let him place the supporting hoops *, as also the equinoctial cirele.
"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 Ca pricorn and the remaining signs. Circles are similarly placed on both hoops for the asterisms in both hemispheses, as also for Abhijit; and for the seven Rı̈shis, Agastya, Bralume 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 Zodiack]."

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

[^123]place is its horizon. He concludes by showing, that the instrument may be made to revolve with regularity, by means of a current 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 already explained (p. 326).

More ample instructions for framing an armillary sphere are delivered in the Sidd'hanta s'iroman'i. 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 considerations of other topicks *, which cannot be sufficiently discussed in the present essay. A brief abstract of Bha'scara's description may here suffice. In the center he places a small globe to represent the earth encompassed with circles for the orbits of the planets arranged like the curved lines in a-spider's web. On an axis passing through the poles of the earth, and prolonged on both sides, a sphere, or assemblage of circles, is suspended, by means of rings or subes adapted to the axis, so that the sphere may move freely on it. This assemblage of circles comprises a horizon and equator adjusted for the place, with a prime vertical 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.

[^124]Another 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 of 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 adjusted to the ecliptick; as also six diurnal circles parallel to the equinoctial, and passing through the extremities of the several signs.

THIS, though not a complete description of $\mathrm{BHA}^{\prime}$ Cara's armillary sphere, will convey a sufficient notion of the instrument for the purpose of the present compae rison ; 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 Súrya sidd'hánta, mention is made of several star's not included in the asterisms which mark the divisions of the ecliptick. The following table exhibits the po sitions of those, and of the few other stars which have been particularly noticed by Hindu astronomers.

| Brahme sidd ${ }^{\text {hounta }}$orginand Siromani. |  | Lig'lara. |  | Sárvabhauma. |  | $\begin{aligned} & \text { Siurya } \\ & \text { Sidd'hinta. } \end{aligned}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| D. | Long. | Lat. | Long. | Lat. | Long. | Lat. | Long. |
| Agastya, - $\quad 77^{\circ} \mathrm{S}$, | $87^{\circ}$ | $6^{\circ} \mathrm{S}$. | 80 | $77^{\circ}+6 \mathrm{~S}$. | $85^{\circ}$ 5 | $80^{\circ} \mathrm{S}$. | $90^{\circ}$ |
| $\left.\begin{array}{l}\text { Lubidi hazara, } \\ \text { or the hunter, }\}\end{array}\right\} 40^{\circ} \mathrm{s}$. | $86^{\circ}$ | $40^{\circ} \mathrm{S}$. | $8 \mathrm{r}^{\circ}$ | $40^{\circ} 4 \mathrm{~S}$ | $84^{\circ} \cdot 36$ | $44^{\circ} \mathrm{s}$ | 8 |
|  | 931 | $8^{\circ} \mathrm{N}$. | $53^{\circ}$. | $8{ }^{80} 14 \mathrm{~N}$ | $\overline{57^{\circ}} 4$ | $8^{\circ} \mathrm{N}$ | $52^{\circ}$ |
| Brahnehridaya |  | $31^{\circ} \mathrm{N}$ | $46^{\circ}$ | $30^{\circ} 49 \mathrm{~N}$ | $58^{\circ} 36$ | $30^{\circ} \mathrm{N}$ | $52^{\circ} \mathrm{t}$ |
| Prajápati or Brahma |  | $39^{\circ} \mathrm{N}$. | $61^{\circ}$ | $38^{\circ} 3^{8 N}$. | $56^{\circ} \quad 53$ | $38^{\circ} \mathrm{N}$ | $57^{\circ}$ |
| Apumzalsa |  | $3^{\circ} \mathrm{N}$ | $183^{\circ}$ | 3 N . | $183^{\circ}$ | $3^{\circ} \mathrm{N}$ | $180^{\circ}$ |
| Apas |  |  |  |  |  | 19 N | $180^{\circ}$ |

IThe Sicalya sanhitá and Tatzo viveca agree with the Sirya sidd'hanta as to the $p$ sitions of the first four stars. They omit the other three.

## According to the

The seven Rishis

## Sácalya Sanhitá.

 Lat. $55^{\circ} \mathrm{N}$. $50^{\circ} \mathrm{N}$. $50^{\circ} \mathrm{N}$. $56^{\circ} \mathrm{N}$. $57^{\circ} \mathrm{N}$. $60^{\circ} \mathrm{N}$.Vasisht'ha
Maríchi . . . . . . $60^{\circ} \mathrm{N}$.
$60^{\circ} \mathrm{N}$.

Here Agastya is evidently Canopus; as Lubdhaca is Sirius. Brahmeridaya seems to be Capella, which was shown, under that Indian name, to $D_{r}$. Hunter at Ujjayiní. Agni may be the bright star in the northern horn of the bull ( $\beta$ Tauri) : Prajápati is perhaps the star on the head of the waggoner ( $\delta$ Aurigæ). The distances of the three last mentioned stars from the ecliptick 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 Nacshatra 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 Mrigas'iras is too great.

The star, mentioned in the Súrya sidd'hantıl under the name of $A^{\prime}$ pas or water, is doubtless $\delta$ Virginis ; and Apámvatsa comprises the nebulous stars in the same constellation, marked b 1. 2. 3.

Astronomers gives 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. Vara'ha Mihira says, "Agastya is 2 A 2
yisible at Uijayini, when the sun is $7^{\circ}$ 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 Róhinit'." His commentator remarks, that the author has here followed earlier writers; and quotes Para'sara saying, "When the sun is in Hasta, the star rises; and it sets when the sun is in Róhinú *." Bhatrótrala cites frotz the five Sidd'hintas a rule of computation, analogous to that, which will be forthwith quoted from the Bhásroatí; and remarks, that three periods of Agastya's heliacal rising are observed, viz. 8th and 15 th of $A s^{\prime}$ wind and 8th of Cárica.

The Bhásrvalí directs the day of Agastya's rising for any particular latitude to be fouud by the following rule. The length of the shadow of a gnomon $\uparrow$ 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 1350 ; 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, Agasya in latitude $26^{\circ} 34^{\prime}$, rises when the sun is in $4^{s} 20^{\circ}$ and sets when the sun is in $1^{5} 10^{\circ}$.

The Grahalág'zava teaches another method of calculation. The length of the shadow of the gnomon is multiplied by 8 , and the product is

## - दृएते सकिलद्स गतेकोरे।हिया मुपगते सम पै ते

I In duodecimal parts.
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 $26^{\circ} 34^{\prime}$, when the sun is at the 26 th degree of the lion, and sliould set when the sun quits the ram. Accordingly, the Bhavishya and the Brahmevaivarla Puránas ordain oblations for Agast$y a$ three days before the sun reaches the Zodiacal sign Virgo; though the inhabitants of the province of Gaura, as observed in the last mentioned Purána, perform this ceremony three days earlier.

In regard to the passages above quoted, it may be remarked, that the rule, stated in the Bhaswati, implies the distance of three signs, from the beginning of Aries, to Agastya, and supposes the star to become visible when distant one sign from the sun. But the rule, delivered in the Grahalag'hava, places the star at the distance of $88^{\circ}$ from the beginning of Mesha, and supposes it visible in the right sphere, when $10^{\circ}$ distant from the sun. According to the quotation from PAra'sara, the right ascension of the star must have been, in his time, not less than $100^{\circ}$ reckoned from the beginning of Mésha; and the star, rising cosmically, became visible in the oblique sphere, at the distance of $60^{\circ}$ 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 Parásara's sule was framed for the north of India, at a period when the solstitial points were, as stated by that author, in the middle of Asleshá and beginning of Dhanishiha*.

I have purposely reserved for separate consideration the seven Rishis, who give name to seven stars in Ursa

[^125]major ; not only because their positions are not stated by Brahmegupta, Bha'scara, and the Súryasidd'hánta, but also because the authors, who give their positions, ascribe to them a particular motion, or variation of longitude, different from other stars, and apparently unconnected with the precession of the equinoxes.

Vara'ha Mifira hasa chapter in the Váráhisanhitá expressly on the subject of this supposed motion of the Rishis. He begins by announcing the intention of stating their revolution conformably with the doctrine of Vridd'ha Garga, and proceeds as follows: "When king Yud'hist'hira ruled the earth, the Munis were in Maghá, 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 Nacshatra, to which, when it rises in the east, the line of their rising is directed *."

The commentator, Bhattótpala, supports the text of his author by quotations from Vridd'ha Garga and Ca's'yapa. "At the junction of the Cali and Dwápar ages, says Garga, "the virtuous sages, who delight in protecting the people, stood at the asterism, over which the Pitris preside.", That is at Maghá. "The mighty sages," says Ca's'yapa, "abide during

## - ग्रासन मधास् मुनयं: शासतिपृ ख्वी बुछिछिएे

 नृपता। षड्दिकषंच द्वि युतः छूककालस्याराज्य शग्द्यना 5 कबिबरादुजूद्यनत्रसयुताः
According to a different reading noticed by the commentator, the concluding hemistich signifies "they constantly rise in the northeast ; together with Arund'hatí."
a hundred years in each asterism, attended by the wirthous Arund'hatí."

The author next states the relative situation of the seven Rishis, with Arund'hatí near her husband Vasisht'há: and the remainder of the Chapter is devoted to astrology.

The revolution of the seven Ruskis, and its periods, are noticed in Puránas. The following passage is from the Srí Bhágavata *.
"From your birth (Paricshit is addressed by Su'ca) to the inauguration of $\mathrm{NaNDA}^{\prime} 1115$ years will elapse.
"OF the seven Riskis, two are first perceived, rising in the sky; and the asterism, which is observed to be at night even with the middle of those 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 Maghä.
" $W_{\text {hen }}$ the splendor of Vishnu, named Crishina, 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 woild.
"When the seven Rishis were in Maghá, the Cali age comprising 1200 [divine] years $\uparrow$ began; and when, from Maghá, they shall reach Purvíshád'ha; then will this Cali age attain its growth under Nanda and his successors."

[^126]The commentator Sifídihara Swa'mi remarks, that the constellation, consisting of seven stars, is in the form of a wheeled carriage. Mari'chi, he observes, is at the extremity; and next to him, Vasisht'ha 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 Pulastya; 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 asterism, 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 Vishmu Purána*, and a similar exposition of it is given by the commentator Ratnagarbha: but the period, there stated to elapse between the birth of Pabicshit and the inauguration of NANDA, is 1015 years only.

The Matsya Purána contains a passage to the like effect; but allows 1050 years from the birth of $\mathrm{PA}_{\mathrm{A}}$ ricshit to the inauguration of Mahápadma: and the seven Rishis are stated as being in a line with the constellation sacred to fire (that is Crïtticá), 836 years later, in the time of the Andhra kings.

In the Brahme sidd hánta of $\mathrm{Sa}^{\prime} \mathrm{calya}$, denominated from its reputed author Sácalya sanhitá, the supposed motion of the seven Rishis is thus noticed $\downarrow$ : "At the commencemeat of the yuga, Cratu was near the star sacred to Vishnu (Sravaná), at the beginning of the asterism. Three degrees east of him, was Pulaha; and Pulastya, at ten degrees

[^127]from this; ATri followed at three degrees from the last; and Anarras, at eight degrees from him; next came Vas'isht'ha, at the distance of seven degrees; and lastly Maríchi at ten. Their motion is eight liptas (minutes) in a year. Their distances from the ecliptick, north, were respectively $55^{\circ}, 50^{\circ}, 50^{\circ}, 56^{\circ}$, $57^{\circ}, 60^{\circ}$, and $60^{\circ}$. 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 Munis'wara in his gloss on the Sirómani, says "If the number of years of the Cali age, less fourteen, be divided by 100, the quotient, as the wise declare, shows the asterisms traversed by Maríchi and other celestial sages, beginning from the asterism of Viranchi (Beahma)."

Here Lalla is generally understood to mean Róhinú, which is sacred to Prajápali (or Brahmá). But Munís'wara has remarked, in another place, that Lalla may intend Abhijit which is sacred to Vid hi or Brahma; and consequently may mean $S^{\prime}$ ravan'á, of which Abhijit forms a part : and thus Lalla and Sa'calya may be reconciled.

Most of the commentators on the Surya sidd'hánta and Siromini are silent on the subject of the seven Rüshis. But Nrisinha, in his Várica to the Vásand Bláshy a or gloss on the Siróman'i, quotes and expounds the Sácrlya Sanhitá, and rejects Vara'ha's rule of computation, as disagreeing with Purín'as. Munis'wara, in his commentary on the Siróman'i, cites some of the passages above noticed, and remarks, that Bha'scara has omitted this topick on account of contradictory opinions concerning it, and because it is of no great use.

The same author, in his own compilation entitled Sidd'hánta Sárvabbauma, has entered more fully into this, subject. He observes, that the seven Rishis are not, like other stars, attached by spikes to the solid ring of the ecliptick, but revolve in small circles round the northern pole of the ecliptick, moving by their own power in the etherial sphere above Saturn, but below the sphere of the stars. He places the Rishis in the same relative positions, which $S^{\prime}$ calya had assigned to them; states in other terms the same distances from the ecliptick, and the same annual motion; and direets 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. MuNis' WI ABA supports this mode of calculation on the authority of SA'calya, against VARA'ha 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 SA'calya's rule.

Camalácara, in the Tatwavivéca, notices the opinion delivered in the Sidd'hanta Sárvabhauma; but observes, that no such motion of the stars is perceptible. Remarking, however, that the authority of the Purán'as and Sanhitás, which affirm their revolution, is incontrovertible, he reconciles faith and experience by saying, that the stars themselves are fixed; but the sêven Rïshis are invisible deities, who perform the stated revolution in the period specified,

If Camalácara's notion be adopted, no difficulty remains : yet it can hardly be supposed, that Vara'ha mihira and Lalla intended to describe revolutions of invisible beings. If then it beallowed, 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 conp
ceded : namely, that the rules, stated by them, gave a result not grossly wrong at the respective periods whem 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 Vara'ha mihira composed the Várahí sanhitá about 2800 years after the period assigned by him to the commencement of the reign of Yudhisht'hira, or near the close of the third century after the expiration of Yudhisht'hira's era as defined by him. For the circle of declination passing between Cratu and Puiaha (the two first of the seven Rïshis), and cutting the ecliptick only $2^{\circ}$ short of the beginning of Maghat, was the solstitial colure, when the equinox was near the beginning of Crilticici; and such probably was the reason of that line being noticed by ancient Hindu astronomers. It agrees with the solistitial 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

[^128]Maghá when the solstitial colure was at the middle of Asleshá; and a like circle passed through the next asterism, when the equinox corresponded with the first point of Mésha. An astronomer of that period, if he were apprized of the position assigned to the same stars Dy Garga reputed to have been the priest of Crishna and the Pándus, might conclude with Vara'ha mbhira, that one revolution had been completed, and that the stars had passed through one Nacshatra of the second revolution. In corroboration of this inference respecting the age of Vaba'ha mibira's astrological treatise, it may be added, that he is cited by name in the Pancha tantra, the original of the fables of Pilpay, which were translated for Nushirva's more than 1200 years ago *.

The theory being wholly unfounded, Vara'ha mifina's rule of computation soon-ceased to agree with the phenomena, and other rules have been successively introduced by different authors, as Lafla, Sa'calya and lastly Munís'wara; whose rule, derised 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 Yud'mishthira; and jis prevalence, on the failure of the succession of Cshatriya princes, and establishment of a different dynasty, 1015 years after the birth of Paricshit, according to the Fishimu Purína; or 1115 years, according to the Bhágotvala; but 1498 years, if a correction, which has been proposed by Suíd'hara Swami and some other commentators, be admitted. This subject has

[^129]been already noticed by Capt. Wisford in his essay on Vicanmáditya; and it is, therefore, unecessary to enlarge upon it in this place.

It has been noticed, fowards the beginning of the present essay, that the principal star of each Nacshatra, is denominated Yogatárá. Perhaps it may not be superfluous to caution the reader against confounding these yoga stars with the yogas, of which a list is inserted in Sir W. Jones's Treatise on the Indian Zodiack *. They are mentioned by him as divisions of the ecliptick : but it will presently appear, that they cannot in striceness be so denominated. Their principal purpose regards astrology; but they are also employed in regulating certain moveable feasts; and they are of such frequent ase, that every Indian Almanack contains a column specifying the yoga for each day, with the hour of its termination.

The yoga 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 Suirya Sidd'hánta, Bháswati and Graha lág'kava, 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 $13^{\circ} 20^{\prime}$ ): the quotient exhibits the elapsed yogas, counted from Vishoumbha \&. It is obvious therefore, that the yogas are twenty-seven divisions of $360^{\circ}$ of a great circle, mea-

[^130]sured upon the ecliptick. But, if they be represented on a circle, it must be a moveable one in the plane of the ecliptick.

2stologers also reckon twenty-eight yogas, which correspond to the twenty-eight Nacshatras 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 *.

* 1 Ananda. 2 Cáladanda. 3 Dhúmra. 4 Prajápati. 5 Saumya. 6 Dhwánesha. 7 Dhwaja. 8 Srívatsa. 9 Vajra. 10 Mudgara. 11 Ch'hatra. 12 Maitra. 13 Mánasa. 14 Padma. 15 Lambuca. 16 Utpáta. 17 Mrityu. 18 Cána. 19 Sidd’hi. 20 Subha. 21 Amrita. 22 Musula, 23 Gada. 24 Mátanga. 25 Rácshasa. 26 Chara. 27 St'hira. 28 Pravard'ha.

The foregoing list is extracted from the Ratnamálí of Srípati. He adds the rule by which the yogas are regulated. On a Sunday, the Nacshatras answer to the yugas, in their natural order; viz. Aswini to Ananda, Bharani to Cälandanda, \&̌c. But, on a Monday, the first yoga (Ananda) corresponds to Mrigasiras, the sesond to Ardrá, and so forth. On a Tuesday, the Nacshatra, which answers to the first yoga, is Asleshá ; on Wednesday, Hasta; on Thursday, Anurád'ha; on Friday, Uttarrúshád da; and on Saturday, Satabhishá.

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.

Variable Caranas. Invariable Caranas.

1 Bava.
2 Bálava.
3 Caulava.
4 Taitila.
5 Gara.
o Vanij.
7 Vishti.

1 Sacuni.
2 Chatushpád.
3 Nága.
4 Cintughna.

- Another topick, relative to the Zodiack, and connected with astrology, remains to be noticed. I allude to the Dréshcinas 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 Dreshicanás is given towards the close of Vara'hamihira's treatise on the casting of nativities, entitled Vrihat Jataca. It is here translated conformably with the gloss of ВнattótraLA : lomitting, 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 Dréshánas 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 protect, 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, thirsty and

[^131]resting on one foot, is exhibited by Yavana as the figure of the Dréshcána in the middle of Mésha*.
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 stick, and wears red clothes. He is the third in the tripatite division of Mésha.
4. [Venus] A woman with hair clipped and curled, a body shaped like a jar, her clothes burnt, herself thirsty, disposed to eat, and fond of ornaments : such is the figure of the first in Vrishabha.

- 5. [Mercury] A man with the head of a goat, anda 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 Sarabba's $\uparrow$, 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 arnis elevated.
8. [Venes] In the middle of the
sign Gemini is a man, with the face

मेपम ख्ये ट्रेण्काएता नूषंघवनेपदिष्टा। BHATfotpala expound thís "declared by Yavancharya" पबनाचायैं बधित
$\dagger$ A mouster with eight legs, who destroys elephants.
of a Garud'a*, 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 wise declare the first in Can'cer 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 $\uparrow$, 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 Palása $\div$ 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 $\S$ : 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 like a Lion; armed with

[^132]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 Yavanas 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.)

## - नट्रूपंवर्दंतियवना: प्रधमंतलापाः This might

 signify "Yavana declares;" for the plural is used in Sanscrit respectfully : and Bhattotpala has before expounded घवन as intending Yavanacharya : but a different explanation occurs a littlelower.
21. [Mercury] A man, in figure like an ape, adorned with gems, bearing a golden quiver and armour, and carrying fruits and flesh, is scaring 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 a 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 Champacat, 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 com-

- घबनेगुटाहृतः Which Bhattotpala expounds "declared by the ancient Yavanas." पुराएमनवने:

[^133]plexion yellow like the Champaca, 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.
28. [Saturn] A man, of a terrible aspect, with the body of a hog, hairy, having tusks 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 musick, with eyes large like the petals of the lotos, and with a dark complexion. She seeks various things : she is decorated with jewels ; and wears metallick ornaments in her ears.
30. [Mercury] A man, shaped like a Cimnara $\dagger$, 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. [TAESUN] The first of the jar (Aquarius) is a man with the head of a vulture, clothed in silk and wearing an antolope'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 soiled 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 transporis vases with articles of metal, and with bark, leaves, gum, and fruit. He is last of Cumbha.

[^134]34. [JUPISER] The first of the fish [Pisces] navigatés the sea 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 sages 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 fish.

Agábian astronomers in like manner divide each sign of the Zodiack into three parts, denominated Wajeh ( $\alpha \div g$ ) or in the plural Wujuh ( $0, \rightarrow \mathrm{~g}$ ), which severally belong to the different planets * thence called Rab ul wajeh. The proper import of the term $\alpha \rightarrow g$ is face or countenance; agreeing with the Greek חeoownov, which is similarly employed in this acceptation $\dagger$.

The near correspondence of the Darésh'cán'as with the Decani of Roman authors and dsxavos 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 Savmaise + ; the original works, from which they are taken, not being here procurable.

[^135]Quam partem decimam dixêre Decania gentes;
A numero nomen positum est, quòd partibus astra Condita tricenis propriâ sub sorte feruntur, Et tribuunt denas in se coeuntibus astris, Inque vicem terris habitantur sidera Signis.

Hephestion expressly declares $\downarrow$, that "each sign of the Zodiack 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 Asitun, 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 $\ddagger$ -
2) We learn from Psellus § 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;

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imfy?)
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- L Lib. 4. 298-302.

$\ddagger$ Salmasii Plin. Exerc. p. 653 .





$\|$ Primum wৎoo $\omega \pi$ ov est is planeta cujus signum est : secundum wpoowrov planeta sequens: et sic deinceps. Aries est Martis primum wpoo $\omega \pi$ ov, secundum Solis, tertium Veneris, juxta seriem errantium. This agrees precisely with the Arabian $\propto \geq 9$
the second 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 Nekepso king of Egypt *; and Psellus cites a Babylonian author, whom he calls Teucer; and who is also noticed by Porphyrius : besides, the names of the Decani, stated by Hepreestion and Firmicus, are decidedly barbarous. It was not, therefore, without reason, that Saumaise and Kircher sought 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 $\downarrow$; 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.

[^136]2 B 4

One branch of astrology, entitled Täjaca, 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 Vara'ha mihira himself, as interpreted by his commentator, quotes the Yavanas (meaning perhaps Grecian authors), in a manner which indicates, that the description of the Dreshcanas is borrowed from them.
The name of Yavana'cha'sya, who is cited by Bhattótrala, 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 Yavan achárya 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.

[^137]> Gólád'hyáya, 1, v, 6.

## VII.

## On Olibanum or Frankincensb.

BY H. T. COLEBROOKE, ESQ.

I$T$ 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. Linneus has referred it to a species of Juniper *: and accordingly botanists of his school $\uparrow$, and the Chemical writers $\$$, concur in affirming, that Olibanum is the produce of the Lycian Juniper, But this tree is a 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 Linn eus made the assertion without proof. Their remark is, I believe, well founded. No proof appears to have been alledged; and both Niebuhr and Bruce considered it as an undecided question, which they endeavoured, though unsuccessfully, to investigate ||. I therefore apprehended, that the evidence,

[^138]which will 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.
 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 ancertain than ever. The information, obtained in modern times from Arabia, is not more satisfactory.

Olibanum is named Lubain 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 Muhammedan writers of India, on Materia Medica, apply only the term Cundur to Olibanum. The author of the Mekhzenuladviyeh, under this head, states Cundur as Arabick, or according to other opinions Persian, and equivalent to theSyriack Labuiniyá (لب. لب.) 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 Tohfut ul mamininn gives a similar description (excepting the remark last quoted;) and so does the Arabian author Abulfadli cited by the French translator of Pliny $\uparrow$ 。

[^139]From the Hebrew Lebonah or Arabick Lubán, the Greeks obtained their names for the tree and the gum, Libanos and Libanotos. They seem likewise to have been acquainted with the term of Cundur, from which $\chi_{0} \delta_{p}(\underset{O}{2}$ is probably derived.

The Hindu writers on Materia Medica notice a fragrant resinous gum, under the name of Cundzru, 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 Sallaci, a tree which they affirm to be vulgarly called Sálaï. The tree, which is known by that name, was examined by Dr. Huntrr on his journey to Ujjayini; and by me on a journey to Nágpur: and it has been figured and described by Dr. Roxburgh, who has named it Boswellia Serrata. His description follows.
Boswellita Serrata, Roxb.
Gen. Char. Calyx beneath, 5-toothed. Corol 5 petaled. Nectary a crenulated, fleshy cup, surrounding the lower part of the germ, with stamens inserted on its outside. Capsule 3-sided, 3-celled, 3 -valved. Seeds solitary, membrane-winged.
Spec. Char. Leaves pinnate; leaflets serrate, downy. Racemes simple, axillary. Petals ovate. Filamentş inserted on the exterior margin of, the nectary.
A laige 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.

## Bràcts 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 $\gamma$, 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.
Pistil. Germ above, ovate. Style cylindric. Stigma of three pretty large lobes.
Pericarp: Capsule nblong, 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 the Calyx

[^140]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 germ does indeed exhibit a few in each cell; but only one is usually matured.

The tree is frequent in the forest between the Sone and Nágpur ; on the route by which I travelled to Berar in 1798 . The gum, which exudes from it, was noticed by Mr. D. Turnbull, whowas then Surgeon to the residency at Nágpurr. 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 Sáluï, 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 sales.

Tue 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 Gums 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 *.
Sansc. Sallací or Sillací, Cundurucí $\ddagger$ or Cundurí, Surabbí t, Suvahá, \&c.
Hind. Sálaï, Sálé, Sálá or Silá, Sajíwan.
Gr. Libanos.
Lat. Libanus.
The Gum. Sansc. Cunduru, Cunda, Mucunda, \&c. Ar. \& Pers. Cundur (anciently Lubán.) Syr. Labuniya. Heb. Lebonah.
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 generick and trivial names of the species might be Libanus thurifera.
$\dagger$ Producing Conduru.
$\ddagger$ Fragrant.


## VIII.

REMARKS on the Species of Pepper, which are found on Prince of Wales's Island.

## RY 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 respecting the culture and preparation of black pepper, the principal staple of that island, I am induced to lay the fruit ot 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 derivative, I am indebted to the liberal assistance of Mr. Colebrooke.

1. Piper nigrum. Lin. sp. 40. Syst. 74. Reich. 1. 75. Willden, 159. Fl. Zeylan. 26. Mat. Med. p. 41. Woodv. Med. Bot. 513. t. 187. Camelli de plantis Philip. in Phil. Trans. vol. 24. p. 1773. Loureir: Cochinch. 30. Miller illust. Plenck icon. Miller's Dict. No. 1.

Black Pepper. Leaves ovate, accuminate, five to seven nerved, smooth; petioles short.
Piper rotundum nigrum. Pluk: almag. p. 297. t. 437. f. 1.

Piper rotundifolium nigrum. Bauhin. pin. 411. Morison hist. pl. 3. p. 602. f. 15. t. 1. f. 1. Blackwell t. 318. Ray. Hist. 1341. Burm. Zeyl. 193.

Lada, aliis molanga s. Piper mas. Piso Mant. Arom. p. 180. cum icon.

Mulago Codi. Hort. Malab. v. 7. p. 23. t. 12.
Pepper-plant. Marsden Sumat. p. 105, \& seq.

## Gr. $\Pi_{\varepsilon \pi \varepsilon \rho t}$

Sans. Maricha, Maricha.
Hind. Mirch, Golmirch, Cálímirch.
Arab. Fulful, Filfil.
Pers. Pilpil.
Malay. Ladda.
The Greek name of this species, from which-the name of the genus is taken, has been said to be derived from $\Pi$ हm $/ \omega$, because it is supposed to promote digestion ${ }^{1}$. But we have it on the authority of Hippocrates that the Greeks received this term from the Persians ${ }^{2}$; and these undoubtedly, had it from the Indians 3, 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 ${ }^{4}$, has fallen, in common with other modern writers ${ }^{5}$, into the opposite error, by supposing the black and white peppers to grow on different plants. Piso appears to be the first
${ }^{1}$ Scapulæ Lexic. in voce. Alex. Aphr. in præf. 1. 1. probl.
2 De Morb. Mulier: ed. Fces. p. 672. 1. 14.
3 Salmas. Plinian. Exercit. in Solin. (Paris 1629. fol.) p. 1026. C.
4 Ibid.
5 Garcias Hist. Arom, apud. Clus. exot. p. 182.
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.

Ir is propagated by cuttings, or suckers. They are generally planted at the distance of about $7 \frac{1}{2}$ feet ; that is 100 plants in an U'rlong, which is a measure of 80 yards square, nearly equal to 31-3 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 U'rlong. 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-third is paid

[^141]Vol. IX.
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 (Mankuido) and the Erythrina Corallo dendron (Dadap). The Chinese planters alledge, 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 Erythrind 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 cattí each. But plants kept in good order, when in their prime, will produce three cattís ${ }^{10}$. A plantation of 3000

[^142]vines at Síngí Chian ${ }^{\text {rI }}$, now in its eleventh year, has been let for three years at seventy picols yearly, or at the rate of $2^{\frac{1}{3}}$ cattís each plant. It muse 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 cathís for 100 vines.

The vines yield two crops yearly. The first gathering commences at 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, blossons 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 catiss of green pepper, with the stalks, yield thirty-five catti's of clean and dry pepper. The collection of one day from

[^143]$\{6,000$ 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 hereby 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 ${ }^{12}$, 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 Isiand, was estimsted 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.

12 In 1802,
2 C 3

390 REMARKS ON THE SPECIES OF PEPPER,
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.
2. Piper Betle. Lin. sp. 40. Syst. 74. Reich. 1. 75. Willd. 159. Fl. Zeyl. n. 27. Loureir. Cochinch. 31. Burman. Zeyl. 193. t. 83. f. 2. Moris. Hist. 3. 603. Miller's Dict. No. 2. Leaves obliquely cordate, acuminate, waving, seven-nerved, smoath.
Betele Tambul sive Betre. Burmi. Zeyl. 46.
Betre, Betelle, Betele, Betle. Bauh. Hist. i. p. 437. Ray. Hist. 1913. Acost. Arom. c. 10. Clus, exot. 176. t. 176. Dale pharm : 313.

Beetla Codi. Rheede Mal. 7. p. 29. t. 15. Bulat wæla. Herm. Zeyl. 34. 36. 66.
Sans. Tambulí, Parn'alatá, Nágavallí.
Hind. Támbul, Tamból, Nágbél, Pán.
Tamul. Vetillay-Chuddi。
Malay, Sírí.
Saumaise has shown at length, and with considerable strength of argument, that the ancient Greek writers meant this leaf by Malabathrum, rather than the leaves of Laurus Cassia, or Tez-pat ${ }^{13}$. The Arabick and Persian Languages have no names for this plant. Tambol is borrowed from the Hindí by Persian Authors, who name the leaf Bergitambol. It is called Pán in Hindí, from the Sanscrit Parna, a leaf in general; in the same manner as it was known to the Romans under the name of folium ${ }^{\text {14 }}$. The Indian writers enumerate

[^144]several 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.
3. Piper Siriboa. Lin. sp. 41. Reich. 1. 76. Willd. 161. Flor. Zeyl. 29. Swartz. obs. 19. Miller Dict. No. 10.
Siriboa Rumph. Amb. 5. 340. t. 117.
Betela quem Sirii boa vocant. Bont. Jav. 91. t. 91. Ray, Hist. 1913.

## Malay Baci.

The fruit is nearly as long as a finger, and tastes like the Betel leaf; and hence the name ; boa signifying fruit in the Malay language. It is used as a substitute for Betel, especially at sea, where the fresh leaves cannot be procured.
3. Piper Chaba. H. Leaves alternate, petioled, lance-ovate, oblique at the base, with veins opposite: Spikes leaf-opposed, peduncled, somewhat conical, compact.

15 The Mekhzen úl Adviyeh, a treatise on Materia Medica, composed by Muhammed Husain, brother to the Nawar Muhummed Reza Khan, enumerates the following five kinds, Maghi, Cángiví, Cäfüri, Sánchí, Benglá. 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 bours in thehole, 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.

Piper Longum Tsjabe. Rumph. Amb. 5. p. 333, t. 116. f. 1.

Malay. Chábatádí.
This species has been generally confounded with Piper Longum; but a comparison of the figure above quoted from Rumphius, with that of Rheede's Cattutirpali. 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 Pilpili deráz. The species now under consideration appears to be the same that is called in Sanscrit Chavicá 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 Tetrantheta Apetala of $\mathrm{D}_{\mathrm{r}}$. Roxburgh $\ddagger$. 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. Gádú or Gádûkh.

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.

[^145]
## FOUND ON PRINCE OF WALES'S ISLAND.

Table exhibiting an Estimate of the expence and produce, in 12 years, of 100 Urlongs, planted with Pepper.

1st Year, Clearing of heavy Timber by Malays, at 5 Drs. per Urlong, To the Chinese Contractor, in the course of 3 years, when he engages to deliver the plantation in full bearing, at 225 - Drs. per 1000 plants, $-22,500$ 2d Year, Farther payment to contractor, - - 421875
Interest of ist year, at 12 3d Year, In full to contractor, $\frac{984375}{22,500}$ 4th Year, Interest, Supposing the plantation to be let, during the first 5 years of bearing, at 160 picols per Lacsha, this will be 1600 picols; which may be sold, on the ground, at 10 Drs.

5th Year, Interest,
5th year's crop,
6th Year, Interest,
6th year's crop,
7th Year, Interest,
Yth year's crop,
8th Year, Interest,
8th year's crop,

9'h Year, Interest,
The plants being now in full vigour, may be let for four years more at 2 cattis eack plant, or 2000 picols;
which is
Ioth Year, Interest,
10th year's crop,
I2th Year, Interest,
IIth year's crop,
I2th year's crop,


## IX.

## Description of an improved Hygrometer,

## BY LIEUTENANT HENRY KATER,

 Of 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 oobeena hooloo*, 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 diffiT culty the number of revolutions made by the index.

ABCD (fig. 1) is a frame, made of small square bars of brass or silver; this plate 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 e $f$, 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 twisting a smaller silver

[^146]wire tightly around it from left to right:- this screw should be fourteen or fifteen threads in length; the end of the axis, f , is divided, and is to be closed by a small 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 adyances 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 screv. (See fig. 2.)

The beard of the oobeena hooloo is represented at fd , (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 moishure 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 oobeena 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.

If two 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 hooloo or Andropogon Contortus is found in every part of the country, in the month of January, when it should be gathered, and thoroughly dried in the sun, befure it is used.

This grass appears to be far superior to any other hygroscopic substance, hitherto discovered. In the Encyclopædia Britannica, the scale of Saussure's Hygrometer is said to consist of 400 degrees, or rather more than one revolution of the index; the $\mathrm{Hy}_{\text {, }}$ grometer 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.

## X.

On Ancient Monuments, containing Sanscritt

## Inscriptions.


#### Abstract

BY H. 'T. COLEBROOKE, ESQ.


1N 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 statc 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 bistory 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 monurnents, 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 Pandiu's copy of the last mentioned plate, and from one taken by alearned native in Capt. Wilfor d'sservice, 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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from inscriptions in ancient or unusual character, 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 amends, 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 stone 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 possescion 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 stone and copper, which have been lately presented to the Asiatick Society,

1. Inscriptions on a Plate of Copper found in the district of Tipuna.

Towarps the end of 1803, a plate of copper was discovered in digging earth for the repair of the high-

$$
\begin{aligned}
& \text { Murphy's Travels in Portugal, p. } 277 . \\
& \text { Vol. IX. }
\end{aligned}
$$

way through the Manamati hills in the district of Tipura. It was carried to Mr. Eliot, Magistrate of the district; and by him communicated to the Asiatick Society. On examination, it has been found to contain an inscription declaratory of 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 Tirhut *.

The following is an exact copy of the inscription in Nágari letters, as decyphered by the aid of several Pandits. A literal translation is subjoined; and a fac simile 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 Tirhititya: altered, in course of time, since the separation which has been the consequence of a colony of Cányacubya Brahmens settling in Bengal.




















## TRANSLATION.

3. 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 $H_{\varepsilon^{\prime}}^{\prime} D^{\prime} \uparrow$; in whose pure mind, virtue ever ranges, like a swan in the limpid lake.
4. From him sprung the happy chief of ministers, who exhibits the joys of unsullied glory; a spotless moon, among mortals, and at sight of whom the harespotted luminary $\$$ appears swoln [with envy,] and distempered with alternate increase and wane.
5. That venerable officer $\oint$, ever relying on holy virtues $\|$, is eminently conversant with well guided morals, and conspicuous for the observance of practical duties.
6. Himsele an ocean of generosity and meditation,

[^148]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'HAD'I 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 $\downarrow$ he was; for the deity, who has a hundred eyes $t$, is obscuredeven in his own abode, by the dazzling glories of that [monarch], which traverse the three worlds, in all directions.
6. 'May the twenty drónas § of land, in the village of $l_{j a c^{\circ} h a n d ' a, ~ g r a n t e d ~ t o ~ h i m ~ b y ~ t h a t ~ g e n e r o u s ~ p r i n c e, ~}^{\text {a }}$, continue as long as sun and moon endure, yielding the ample harvest of unsullied praise ; for it is land secure from invasion, delightful, like a pleasant painting, and appears like a crest in the assemblage of cities.
7. 'This land, with definite boundaries has been given by the liberal 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

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you: this land should be preserved; 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 Médiní, urged by the multitude of the good qualities of that. unsullied race, thus make it known *.

- Years expired of the S'aca king $1141+$; dated in the seventeenth year of Ranabanca Malla, Srimat Harticála Déva $\ddagger$, or expressed in numerals, Samvat $\S, 17$; on the 29th of the Sun's being in the balance.
II. Ilscription 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, Magistrale of

[^150]the district, and by him communicated to Captain Wilford, who has presented it to the Asiatick Society.

THE plate, which is $16 \frac{1}{2}$ inches long, and $12 \frac{1}{2}$ broad, is engraved on one face only. The lines, of which there are 24 , tun in the length of the plate; and on the left side is a curvature, on which a semi-circular 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 Wileord communicated a copy of its contents as decyphered by a Pandif 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 Déva nágarí, make a nearer approach to the Tirhuitiya letters than 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 otiginal in fac simile will be subjoined; as well as a correct transcript in modern Déva nágarí letters. The following version is as literal as the difference of idiom permits.

## TRANSLATION.

1. 'Safutation to the God, who is manifested in various forms, from earth to the performer of a sacri-
fice *, who is an universal soul, to be apprehended only by contemplation of saints; and who pervades all.
2. 'Salutamion to the unborn God $\downarrow$, 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 iHs.
3. 'Salutation be to the husband of Lacshmi'; to him who reposes on $\mathrm{SE}_{\mathrm{E}}^{\prime}$ 'sha as on a couch ; to him who is Vishnu extracting the thorns of the three worlds; to him who appears in every shape $\ddagger$.
4. 'Salutation be to the blessed foot of $\mathrm{Pa}^{\prime}$ rvati $\S$, which destroyed the demon Mahisha, by whom all had been overcome; and which gives felicity to the world.
5. 'Surrounded by groves of lofty canes \|, inaccessible through the range of edifices on the bill's summit encompassed by a deep ditch in which fountains spring, secure by impassable defence from 6. dread of foes, a royal abode there is named Vijeyapura a**, which is situated on the declivity of the

[^151]northern mountain, where the pain of regret is unknown, and every gratification is found.
7. 'There reigned the fortunate D'harma'difya, like another Bód hisatwa, a mighty and prosperous prince, whose glory spread over the four
8. seas. His son was Jaya'ditya *, adorable like the moon, the fortune of the world, like the tree which bears every desired fruit, and satisfying thirst like a
9. 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 Critacírti, was the fortunate 11. MadA'Lit, whose pleasing counsels obtained a ready hearing, and who was by nature eager for the reduction of enemies + .

[^152]12. •The village of Dimmadumáa *, obtained by him from the royal favor, and rich in tillage, dwellings and cattle, has been assigned by him to Durgá $\dagger$.
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 14. it down on the growing crop. Rare indeed are those liberal persons, who distinguish not between their own dependants and strangers : how many are the all-productive trees even in the celestial grove $\ddagger$ ?
15. 'Do not imagine, father, that, in the sinful age, a general equality prevails : the sovereign defends the earth, but a weak individual guards not 16. even his house $\oint$. Birth and death, success and misfortune, are perpetually passing : why not, therefore, protect another's glory like one's own ? 17. He, who bestows fertile land furnished with the means of agriculture, mounts a celestial vehicle, and ascends to heaven, gladdening his progenitors.
18. But be, who foolishly resumes land allotted to gods or priests, assuredly causes his ancestors to fall to hell, even though they had previously attained heaven.

- A village of this name is situated in the district of Allahabad, within twenty miles of Bijeypur on the Ganges. But the name is not uncommon; and may belong to some place nearer to the northern mountains.
$\dagger$ Jayaditra's minister, Madali, appears to bave 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.
$\ddagger$ Innea's garden called Nandana; in which five celestial trees are placed, termed Calpadruma, Parijita, \&c. The Calpadruma yields, as its fruit, every thing which is desired.
§ The intention of this and the following lines is to deprecate the resumption of the grant.

19. 'Sprung from a very pute race, respectful towards gods, priests, spiritual parents and the 20. king, a generous founder of temples, who has dug many ponds ; by the tenderness of his disposition an image of Sugata $\uparrow$, a treasure of virtues, with subdued organs, wise, and averse from unpleasing 31. discourse : such was the Cáyast'ha Nágadatıa. By him was composed with great devoutness, this praise of the minister; in apt measure and pleasing verse, elegant * and apposite.
20. 'The last three verses were written by his younger brother VIDYA'DATTA; for he himself was fearful of proclaiming his own virtues.
21. Rich and fertile is the village, obtained through the king's favour as an endowment for subsistence; and still more productive is this other village for virtuous men $\gamma$.'
$\ddagger$ From this comparison to Sugata or Budd'ha, 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 Budd'ha, 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 Budd'he was conspicuous for his tender, compassionate disposition. The mythology of the sect of Budd'ha peoples heaven with Bodhisatwas: and, from this class of beings, the Budd' has are selected. Gautama Budi'ha was a Bod'hisatwa under the name of Swetacetu, before he was incarnate as Sidd'hart'ha son of Sudd'hódana.

- The text exhibits Surna critasóbhá; which must be amended by reading either Swarne 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 or Swarna signifies gold; and may be resolved into words, $S u$ 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 R'já's minister, for his owa subsistence.





















 समाकुलाड निस्यकती। जीव न पह्मिरितिसनायामियंसए तरः पर:\|२झ॥
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 1800, and a fac simile 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 Déva-nágarí characters: but some of the letters are formed in a very unusual manner. It contains a grant by the king of Vidyanagar (pronounced Bijánagar, ) formerly the capital of Carnát'aca: and is dated little more than four hundred years ago. Grants, by kings of this dynasty, are not uncommon in the Dekiin; and may be of use in determining the dates of their several reigns. These princes were enlightened patrons of science: especially Harimára and Bucca Ra'sa sons of Sancama 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 Gane's'a. I bow to SamBHU, graced with the beautiful moon crowning his lofty head; himself the pillar, which upholds the 2. origin of the three worlds*. May he, whose head is like an elephant's, the son of Hara $\downarrow$, the cause of uninterrapted supremacy, the giver of boons, and the luminary which dispels darkness $\ddagger$, preserve us. 3. May the auspicious primeval boar \$, by whom

* Síva, or Mahadeva, 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 p'ates preserved at the templ: of Conjoveram: (As. Re's. vol. 3. p. 39.) with s me difference, however, in the reading and interpretation.
$\dagger$ Ganesa, figured with an elephant's head, reckoned son of Hara or Mabadeva and of his wife Parvati.
$\ddagger$ The original is here inac urate: it exhibits Turas tivra timira giliro; which means nothing, and in which a syllable is deficient for the metre. In the fac simile of another grant, the same passage is correctly written Varad is tivra timira miliro.
§ The incarnation of $\mathrm{V}_{\text {ISHNU }}$, as a boar, who upheld the earth submerged by the ocean, is well known to all who are conyrrant with Indian mythology.
closely embraced, the earth exults, grant us vast prosperity.

4. 'The ambrosial moon, brother of the goddess Ramá, is the offspring of the milky ocean*, having a common origin with the gem Caustubha, the all5. productive tree and the ever beneficent cow. In the lunar race was born a king named YADU $\downarrow$, by a descendant of whom [Crishna] son of VASUDE'VA, 6. the earth has been protected. In his line arose a king named $S_{\mathscr{N} G A M A}+$, who abounded in weighty virtues, and shunned the society of the wicked.
5. 'This king had [five] sons, Harimara, Campa, Buccara'ya who was sovereign of the earth $\S$, Márapa and Mudgapa.
6. 'Among these five graceful princes, the most celebrated was Bucca sovereign of the earth, conspicuous for valor, as Arjura among the Pánda9. vas. Therefore, did Buccaráya, fierce in battle, become a fortunate prince, applying his left

* The story of the churniug of the ocean is familiar to every one.
$\dagger$ Yadu, the celebrated ancestor of Crishna, was of the lunar $\mathrm{r}^{\text {ace. }}$
$\ddagger$ The pretersions of Sangama to be descended from the lunar line of Cshatriyas or Chandravansis are here asserted.
§ The names of three of these princes, as well as of their father, occur in the writings of Mad'bava-acharya, and of his brother Sayana-acharya, who were priests and cuunsellors of those mbnarchs.

Harthara Raja, and Buccana Raja or Bucca Raya, are named i Mad'hava's commentary on the Vedas, and Campa is mentioned n his grammatical works.
shoulder * to uphold the burden of the mighty elephants posted at the quarters of the world. 10. When his army, in warlike array, performed evolutions on the frontier of his dominions, the Turashcas felt their mouths parched; the Cóncan'a, terrified, apprehended impending death; the And'hras fled, in consternation, to the caverns; the Gurjaras trembled; the Cambojas lost their firmness; and the Calingas were quickly discomfited $\uparrow$.
11. 'He was a conspicuous monarch, splendid, and a supreme ruler of kings, but acting towards disobedient princes, as the king of birds towards
12. serpents; embraced by the concubines of kings, destroying hostile chiefs, defending the heroes of Hindhi Raya, endowed with knowledge and other qualities $\ddagger$ 。

- The text appears to exhibit the negative of Dacshina right.

At the eight principal points of the compass, elephants uphold the world.
$\dagger$ This verse is extremely inaccurate in the original: it has been corrected with the aid of the fac simile of another grant beforementioned. It begins Yasyodd' hay a yudd'he yudd'ha range, which is unmeaning and contains too many syllables for the metre. It should be, as in the other inscription, Yassodyad yudd'ha range. A syilable is wanting in Turushcäh, written Tushcáb. Two were deficient in Bhaya bliara oharitah expressed Bhava bharitah. Both inscriptions write Cámbojáh for Combojah. In one, Sapari is erroneously put for Sapadi.
All the names of nations, which occur in this place, have been repeatedly explained.
$\ddagger$ These stanzas are very obscure : and I a:n not confident, that they are rightly translated. Hindiraya seems to be similar to the Hindípati of Bundelkhand: for so 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. 25 th and 26 h . (As. Res, vol. 3. p. 47). But there is sume d fference in reading as well as in interpretation.
13. 'By that victorious king was Vidyannagarí made a permanent metropolis; a fortunate city, which is adapted to promote universal conquest *.
14. 'Gaura'mbica' became his queen ; a princess respectable fur her virtues; as Rama the beloved wife of Crisna; as Gaurí of S'iva; as 15. S'achí, of Indra; as Saraswatí, of Brahma'; 16. as Ch'ha'ya', of Su'rya $\uparrow$. By the charms of her graceful gaiety, she obscured Tilóttama $\ddagger$; by her happy fidelity to her husband, she excited the envy of Anasu'yá $\S$.
17. 'This liberal prince, pre-eminentamongkings, begot, on that divine princess 9 , a son named Hari18. hara : who is become a protector of the good and punisher of the wicked; who has obtained his

* Vidyánagari signifies the city of science. Ferishtah was mistaken, when he alfirmed, that it was founded by Raja Bellal deo and named after his son Bija kay. (Scott's History of Dekhan, Intr. p. xi.). It is believed to have been founded by the two brothers Harlhara and Bucca Raya.
$\dagger$ 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 trans'ation, to others more generally known. Rama is probably intended for Radha as a representative of Lacshmi.

In the original, Saraswati is called Vani; but the fac simile of the other inscription exhibits Savitri. Sachí is, in the original, erroneously writien Sachi ; and jamiz occurs at the beginning of the verse for nama.
$\ddagger$ Tillóttama is the name of a nymph celebrated for her beauty.
§ Anasuya is wife of Atri, and distinguished for conjugal alfection. The name signifies unenvious.

IT The princess is here termed Gaurt, which is a litle of Pervatí; and which conveys an allusion to her own name Gauranbica.
wish, with the wife; who is enviable, and is devoted to the god Habihara.
19. 'THE tree of virtue thrives by water poured with his donations*; while he shines with the splendid glory of sixteen kinds of gift $\downarrow$.
20. 'In the year $1317 \pm$; and, of the cycle, Dháta; in the month of Mágha and light fort21. night; on the day of full moon; under the asterism sacred to the Pitris (Maghá ;) on Sunday; upon the bank of the river Tungabhadrá, which is 22. adorned by the mountain Hemacu'a; in the pre23. sence of the auspicious deity, Viru'pa'csha §; the valiant Haribara ๆI, revered among mortals, liberal in his gifts of land, and especially attentive to 24. venerable priests, has graciously given, with gold 22. and with a libation of water, to the auspicious de23. scendant of Bha'radwa'ja and follower of the Rigveda, the wife Vishnudícshita Pat't'abardhí, 24. son of Va'chespati surnamed Brila; and to the learned $A^{\prime}$ nanta dícshita son of Ra'mabhat't'a, a descendant of Vasisht"Ha and follower of 25. A'pasta'mba's Yajurveda, inhabitant of Ruchangi 28. (a place known to have been visited by the Pandavas,) the fertile and all productive village of Má25. denahalli, also named Hariharapura, situated in the 26. midst of Bhilichedra, east of the village called 27. Arisicer, south of Gandicehalli, west of Pallavacat'i, and north of Bhudihalli, a place to

- Solemn donations are ratified by pouring water into the hand of the donee.
$\dagger$ Sixteen meritorious gifts are enumerated in treatises on donaa tion.
$\ddagger$ Corres onding to A. D, 1395.
§ A title of Siva.
- The difference of idiom makes it necessary to t :anspose, in the translation, some of the verses of the original.

29. be honoured by all; marked on the four sides by distinct boundaries; together with its treasures, and hidden deposites, its stones and every thing which it 30. 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 31. possessed by the sons, grandsons and other descendants [of the grantees], as long as the sun and 32. 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 land marks, is next inserted in the Canara 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 $\uparrow$.
- 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,

[^153]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 resumption of another's grants. He , who resumes land, whether bestowed by himself or by another, is born an insect in ordure for sixty thousand years. In this world is only one sister of all kings, namely land, which has been conferred on priests* : she must not be enjoyed nor espoused $\downarrow$. This general maxim of duty for kings, should be strictly observed by you in all times: so Ramachandra earnestly conjures all future sovereigns ${ }^{*}$.

- S'ríVirúpácsha; or the auspicious deity with un, even eyes $\oint$."
- The terms may signify "fully granted away, or properly bee atowed."
* In mythology, as well as in figurative language, the earth is wite of the sovereign. With an allusion to this idea, land, which has been granted ayvay, is here called the king's sister: and his seizure of such land is pronounced incestuous,
The expression, which has been translated espoused, (caragrahyí, literally, to be taken by the hand), will also signity subjected to taxation : for cara signifies tax as well as hand.
$\ddagger$ This appears to be a quotation from some poem (a puđưrua or Rámayana). The whole of the concluding part of the inscription (comprised in five stanzas) seems to be the same with the close of grant on plates of copper preserved at Conjeveram, See As, Res. vol. 3. p. 53.
\$. This signature is in Cañara lett \%o:







































## 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 Chitradurg 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 eyidently owing to mistakes of the artist, by whom the plates were engraved. I have consequently derived much assistance from this fac simile in decyphering the original inscription before described.

The grant, here noticed, is by the same prince, and dated in Saca 1213; only four years anterior to the one before translated. I think it, therefore, unnecessary, to complete the decyphering 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 Carnát'aca 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 Curugóde in the

 district of Adon ${ }^{*}$.Another ancient monument, for the communication of which the Asiatick Society is indebted to the same gentleman, whase zeal for literary research, and indefatigable industry in the prosecution of inquiries, cannot be too much praised, was found by him in the upper Carnál'aca 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 Tungbhadrá, 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 Slơcas 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 Slócas 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 Sástrís and Pandits at Triplicane, who explained the greatest part of the inscription to my Brahmeas: by their

[^154]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 al= ready communicated).

- The inscription is useful as ań historical record, if the Raja Racshamalla, mentioned here, be the same with the sovereign of the same name mentioned in a history of Mysore, whe 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 Cánara language and character are used by the natives of all those countries extending from Coimbatore *, north to Balkee $\uparrow$ near Beder, and within the parallels from the eastern Gháts to the western, comprehending the modern provinces of $M y$ sore *, Sera $\|$, upper Bednore §, Soonda T, Goa, Adoni, Rachore $\downarrow$ tr, Canoul ${ }^{*}+$, the Duab of the Kishná and Tung-bhadrà, and a considerable part of the modern Subahs of Beder and Bijápur, as far as the source of the Kishná at least. Its limits and point of junction with the Mahratlas may be yet ascertained with more precision ; but in 1797, I had the opportunity of observing, that the junction of the three languages, Titlinga, Mahratta, and Canara, took place somewhere about Beder.

[^155]- 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 communicated; as several books and ancient inscriptions are written in this character: and the remaining literature of the Jains in Bálághále, 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 Salset, 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 assistance 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 S'iva: 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 Mackerzie, 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.

## TRANSLAT1ON.

## ADORATION be to the auspicious Swayambhe'

 Na't'ha or Self-existent Protector.1. 'I prostrate myself before Sámbhu: 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 Pa'rvatí, to whom the learned prostrate themselves : the God above all gods.
3. 'I prostrate myself before Sambhu'; whose unquenchable blaze consumed the magnificent Tri-

[^156]pura; whose food is the nectar dropping from the beams of the moon; who rejoiced in the sacrifice of heads by the Lord of Rácshasas*; whose face is adorned with smiles, when he enjoys the embraces of Gauvi.'
(The foreguing Sanscrit: the fourth, which is Prá. crit, is unexplained. Those which follow, are in Cánara.)
5. ${ }^{\text {E }}$ By the consort of $\mathrm{DE}^{\prime} \mathrm{Vr}$, whose divinity is adored, the spouse of $\mathrm{Pa}^{\prime}$ rvatí, 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 statiors of his saints, be ever granted to us.
6. 'The beams of whose light, 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; SAMBHU'; may he grant our ardent prayers.
7. 'Cheerfully I bow to Sambhu' 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; who ever resides in the minds of his saints.'
(The two next stanzas have not been explained. The following is in Halla Cánara.)

[^157]10. 'For ever be propitious to Sómès'wara Déradi, the son of the fortunate Bhuvana Malla Víra, the protector of the world, the chief Sovereign of Kings, the pre-eminent monarch, a man of superior virtue, a distinguished 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, enjoying every happiness and good fortune, with the converse of good men and every other pleasure. In this country of Cuntaladésa *, a land renowned for beauty and for manly strength over all the sea-girt earth, is situated Condavipatton, placed as the beauty spot on the human face; a city favoured by the goddess of prosperity; as a nosegay of elegant flowers adorning the tresses of the beauteous goddess of the earth.
11. 'How is this farored land? In its towns are numerous groves of mangoe ; plantations of luxuriant betle and fields of rice : in every town are channels of water, and wells, opulent men and beautiful women: 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 Curugódedurg, like the fastnesses $\uparrow$ 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.

[^158]13. 'This Curuzofle was established as the capital of his dominions by the king of Cuntala, who was the foe of the king Chóla*; who terrified the Gurjara; who is the instrument to destroy the plants of Madru; who put Pándya 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 Tamâl, the palm, the plantain, the Mimusops, the trumpet flower, the tremulous fig-tree, the citron, the Oleander, Mesua, and Cassia, the cotton-tree, the Carambola and Poederia, the mangoe, Butea and fragrant Nalicá; and various trees, that flourish and produce through all seasons as in the garden Nandan: these surrounded this city of Curogóde.'
(The fifteenth stanza is unexplained.)
10. 'In the city of Cirrogode, 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 S'iva;
17. 'The Lord of that city, a warrior unrivalled, whose name was Racsha'malla, 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 Pruicrit, and not explained.)
19. 'This Raja Racsha'malla, 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 Racsha'malla, who was lord of riches and a devout worshipper of Siva, had for his consort Somaldé ví and begot a son named Nérungala Ra'sa', 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 Ne'rungala Ra'sa' and to his wife Pacshalá-déví (the source of all virtues), were happily born two sons named Imádi Macsha'malla and Sómabhu'pa'la, whose renown, like the sky, overspread the whole earth.
22. 'What is the description of the eldest of these princes ? Imádi (or the second) Racsha'malia Ra'Ja', 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 Chinna góvinda, of feeding tigers and sheep in the same fold.
23. 'The king Racsha'malia 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 Cu -

[^159]pid, the God famed for beauty. He was the destroyer of sin ; eminent above foreign kings, and in battle he was as Vishnu.
24. 'May Mritu [Siva] graciously bestow eternal wealth and prosperity of empire, on the king Racsha'malla, among all his chief saints.

- Dubing the gradual increase of the empire of Racsha'malla 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 Talgará Amarí, invested with full authority ; equal in knowledge to Yugand'har, the sun to enlighten the caste of Vajinasa [as the sun enlightens the sky;] chief of ministers, born by the blessing of the god Swayambue', the source of wealth, was BA'bara'su'.?
(Several lines follow giving an account of the ancestors of $\mathrm{Ba}^{\prime}$ bara'ju', which have not been translated.)
'Such is Ba'bara'ju, who built a temple to the God Swayambhu' Dévi', while he was managing the affairs of his sovereign lord, the mighty king, the great Racsha'malla, whose god was the self-existent deity:
- The praise of the priests of the temple.
${ }^{1}$ © They were learned in the sacred ceremonies of. holy devotion, self-restraint, in austere fast, appropriate studies, alms, remembrance, silence, religious practice, and the worship of S'iva.
'They were devout in performing the ceremonies of the worship of the gods of the family. Among them, was one named Ba'lasiva A'char'ya unequalled for a $A^{\prime}$ cha'rya was granted this gift with water poured into his hands.
'The charitable donation of lands given to the good Swayambiu' in the year of Saliváhan 1095 * in the $V_{\text {ijaya }}$ year of the cycle and on the 30th of the month Márgasira, on Morrday in the time of an eclipse of the sun.'
(It appears unnecessary to insert the description of the lands.)

3. Also Chinna Góvinda Sítara Gundi, king of the city of Bhogavati, equal to the sovereign of Bhat't'ál, who was acknowledged for ever by the excellent Viraca'lídeva' the mighty king of the earth named Imádi Racsha'malladeva. In the year of Sáliváhan $1103 \psi$, of the cycle Plava, and on the 15 th of Cártica, on Monday, in the gracious time of the moon's eclipse, at the time when he made over in alms Tripura Agraharam, granted under Dárápúrbic to Ba'lasiva De'va, who repaired all the buildings of Swayambhu'de'va who is distinguished for knowledge of the pure Vedas, and of other religious institutions and customs of the worshippers of Siva, and for chapity in feeding the poor.
(The sequel of the inscription is likewise onitted: it relates to a further grant made by the widow of $\mathrm{Ba}^{\prime}-$ bara'Ju', at the time of her burning herself with the corpse of her husband. The concluding part of it wasi left untranslated, being stated to be illegible,)

The eclipses, mentioned in these grants, do not appear reconcileable with their dates. According to the ta-

[^160]ble of eclipses calculated by Pingre*, the solar eclipses, which occurred in 1172 and 1173 , fell on 27th January and 23 d June, 1172 , and 12 th June, 1173 ; and the lunar eclipses in 1180 and 1181, were on the 13th February and 7 th August 1180 , and 22d December, 1181. None of these approach to the dates of Márgasira or Agraháyana 1005 and Cártica 1103. Unless, then, the era of Sálivaliana 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 Slone 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 (Khará), 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

* Published in L'art de verifirer les dates; and inserted in PlayFair's System of Chrono'ogy.
an inscription（for the stone is very narrow＊，or the in－ scription 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 $1093 \uparrow$ ，on the first day of the light fort－ night of $A s^{\prime} h a ́ d ' h a$ ．This day，at this auspicious Catá， the great and eminent prince YAs APHA ${ }^{\prime}$ LA ${ }^{\ddagger}$ ，in the realm of Causámba，and village of Payahása，com－ mands，that－＿．＂


# संवस्＂ロ凹き मश्लापनेतव्यमिति 

 आखाढभ्भट्टि दश्रन्वेनसह्पपिकं
महा श्जाधिएज
ख्रीयम्शःालःऔरण
म्रा्वमाइडलेपयहा

## स्रग्रमेमठ लम

तुसमादि श नियधा यहेसेसीयमाश
रविक्थूप्य प्यसन
नप्रसादिधाच्चमन्न
स पूलिटाबचरहिर
मप्रन्यादायार्वांकं

ठालंब्वत－— डएयाना－
VII. Inscription on a Plate of Copper found in the district of Dina'spur.

In the beginning of the present year (1806,) a plate of copper was found at Amgáchihi in Sultámpur, 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. Pattle: and by him forwarded for communication to the Asiatick Society. A'mgách'hi, 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 Budét; 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 brass, 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 Dévanágari; 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 decypher 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, Srí Vigrahapáladéva. This name, as 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 firṣt prince mentioned is Lócapa'la, and after him Dharmapála. The next name has not been decyphered : but the following one is JAYAPA'LA, succeeded by Dévapála. Two or three subsequent names are yet undecyphered ${ }^{*}$ : they are followed by RA'JAP'ALA, - PA'LA DE'VA, and subsequently $\mathrm{MA}_{\mathrm{A}}$ Hípa'la déva, Nayapa'la and again Vigrahapa'la DE'VA.

So far as a glympse has been yet obtained of the purport of the inscription, it seems to be a grant by Vigraharála de'va, in the making of which Nayapa'La likewise appears to have had some share. It is dated Samvat $\dot{\sim}$ 12, on the gth day Chaitra.

The use of the word Samrat (which properly signifies a year) to denote the year of the king's reign, and -not that of Vicrama'ditya's era, merits particular notice. In the inscription on the plates found at

[^161]Mongir *, 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 VIcramáditya $\uparrow$. 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 Vicrama'ditya's era is meant, was more likely to intend the year of the reigning king (though Sir W. Jones thought otherwise $\ddagger$, ) 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 Wilford, on examining the fac simile of the inscription in question $\$$, that the character, which stands in the place of the tof Samivat, 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 ;

- As. Res. vol. 1. p. 123.
+ Ibid. p. 130.
$\ddagger$ lbid. p. 142.
$\$$ Plates 1 and 2 in the 1st vol, of As, Res.
and consequently supposed it to be the date of the reign of Déva'pala the prince who made the grant. The date of the $A^{\prime} m g \hat{d} c \hat{h} h i$ plate, which must be referred to the reign of the grantor Vigrahbpála, seems strongly to corroborate this opinion.

Tue present inscription, though yet imperfectly decyphered, appears to be useful towards ascertaining the age of the Mongir grant. The names of Dhermapa'la and Dévapála occur in both inscriptions; as that of RA'JAPa'la does, on the pillar at Budál, as well as on the $A^{\prime} m g a ́ c h ' h i$ plate. Some of these names are also found in the list of princes enumerated in the Ayín ácberí* as having reigned in Bengal before BALlalase'na. The authority of Abu'lfazle, on Hindue history, is indeed not great: but the inscription on the statue of Budd'нa, which was found at Sáranátiha, near Benares $\downarrow$, proves, that a family of princes, whose names terminated in Pála, did reign over Gaud'a in Bengal, near eight hundred years ago: and this is consistent with the period to which that dynasty is brought down by Abu'lfazl; namely the middle of the eleventh century of the christian era. It appears also, from the same inscription found at Sáranát'ha, 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. Wilisins. The name of Mahípála, mentioned as king of Gaud'd in the Saranát'ha inscription, occurs likewise in the $A^{\prime} m g{ }^{\prime}{ }^{\prime}$ ch'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 $A^{\prime} m g a c h ' h i$ is nearly eight hundred years old; and that the plate

[^162]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 Asiatick 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 Bráhmana residing at that place : and a copy of it was taken by Major Mackenzie, which has been communicated by him to tbe Society. The grant appears to be from the second Bucca Ra'sa', who was third in succession from the first prince of that name, and grandson of the king by whom the grants beforementioned were made. If the date have been correctly decyphered from the copy of this inscription, it is of the year 1331 Saca, Gorresponding to A. D. 1409.

Another inscription, communicated by Major Mackenzie, purports to be a grant by Janame'jaya, the celebrated monarch who reigned in India at the commencement of the present age or Caliyuga. It is in the hands of the Brálmens or priests of Goujda Agraharam in Bédmir; 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 decyphered 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 'Janame'Jaya, son of Parícshit, a monarch reigning at Hastinápura, 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 Tungabhadrá and Haridá, at the time of a partial eclipse of the sun, which fell on a Sunday in the month of Chailra, when the sun was entering the northern hemisphere; the moon being in the Nacshatra A'swini*'?

Having completed the sacrifice, the king bestowed gold and lands on certain Brálzmanas of Gautamagráma: 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 Chilradurg $\uparrow$; and in those preserved at Conjeveram 米.

[^163]If reliance might be placed on this as an ancient and authentick mounment, 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 Nágarí 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 Janame'jay a

- For example Samá for Samayé ( समल for समये) a palpa-
ble 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 $\hat{c}$ and ye 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 renarked, a most equally strong: as Paricshiti for Paricshit; Chacravortti for Chacravartiti. Short vowels for long, and vice versâ, in repeated instances ; the dental for the palatial s; and numerous other errors of spelling; besides faults of grammar aad style,
as unauthentick: 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. Agrant of Landby Jayachindia, Rajá 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 decyphered by a Pandit (Servóre Trivérí) 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 inseriptions, is as follows :

1. S'rípála, a prince of the solar race.
2. His son Mahíchandia.
3. S'ríchandrade'va, son of the last mentioned ; acquired, by his own strength, the realm of Gách hipiera or Canyacubja (Canaj;) visited Cäs'í and other holy places; and repeatedly gave away in alans his own weight in gold. He appears to have been the first king of Canoj, in this family.
4. Madanapála déra, son and successor of §́ríchandra.
5. Góvinda chandia, son of Madanapála.
6. Vijaya chandra d'eva, (the same with Jaya. chand,) solu of Góvinda chandia; is stated in the inscription as issuing his commands to all publick officers and to the inhabitants of Náguli assembled
Tol. IX.
at Dervapallipatan'ic, enjoining them to observe and obey his patent: which is recited as a grant of land to two Brâhmanas, conferred by him, on the day of full moon in Mágha 1220*, subsequently to his inauguration as Yuva rája or designated successor and associate in the empire. The inscription concludes by quating, from a Purana, four stanzas to deprecate the resumption of the grant: and by a signature importing "this copper was engraved by Jayapa'la."

Wifhout having having the seen 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 acberit, as supreme monarch of India, having the seat of his empire at Canoj, is there mentioned as the ally of Shefa'buddín in the war with Pritihayíra'ja or Plit'hóba', about the year of the Hejira 558, or A. D. 1192: twenty-eight years after the date of this grant.

$$
R E M A R K S .
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A FEW observations on the general subject under consideration, will terminate this essay.

Most of the ancient momuments, 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 末That durable memorials have been usually framed to

* Correspoding to A. D. 1164.
; Gladwin's Translation, vol. 2. p. 119.
I As. Res. vol. 3. p.50. Digest of Hindu law, vol, 2. p. 278.
record 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, alledged to be ancient, and now possessed by persons who hare any claims or pretensions under the grant which it contains. But no such cause of jealousy exists, wh.re 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 assumes 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 antiqui:ties, 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
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.夕. Page 180.

A passage in the preface of the Sárngadhara paddéhati, 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 'Bahujata' as a conjectural emendation, must be read 'Chahimana,' or 'Chahavana;' 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 Chäuhan. In the preface, Sa'ragad'hara describes himself as second in descent from Raghudéva, a priest attending on Hammír king of S'acambhari, of the tribe of Chäuhan, Chaluvan, or Bahuvana (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 $\uparrow$; 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 Sarngadhara paddhati have been collated: in all of which, the term in question is written Bahuvana. Comparing this with the preface of the same compilation, and with the inscription itself, we may be allowed to conjecture, that Chahuvana is the correct reading : the Nagari letters
ब and च being very liable to be confounded.

- Page 189 of this volume.

एनो नृर्रतिभापएययज्ञयूप पर्रसेः ॥
2 \& 3

## XI.

On the Gra'uas or Musical Scales of the Hindue.

BY J. D. PATERSON, Esa.

$W^{\prime}$HEN 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 mode, rhythmus, and expression.

According to Plato *, the Egyplians 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 beaatiful figures and beautiful melodies, and that it was one of their institutions to exhitut 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 beau.

- On Legislation, Dialogue 2 d .
tiful nor more deformed than the paintings or carvings of the present day, but are fashioned by just the same art."

When Clinias observes, that he spoke of a woftderful 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 fimly 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 Ragas and thirty Raginis: the fortyeight Putras are melodies, which seem to have been introduced in after times, when the discipline, alluded to by Plato, bad begun to be relaxed.

Bur the Indian Ragas and Raginis 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 Hinduz music.

It is likely, that these melodies wete in former times appropriated to the service of different deities. In such case, the Ragas or Raginis 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 engrafted 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 Raga 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 Rama Veda; and in their present order. Their names at length are as follow :

Shadja pronounced Sarja or Kharja.<br>Rishabha pronounced Rikhabh.<br>Gand'hara.<br>Madhyama.<br>Panchama.<br>Dhaivata.<br>Nishada pronounced Nikhad.

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, dlia, ni. The complete scale is called Swaragráma or assemblage of tones; it is likewise called Septac or heptachard, as containing, or consisting of, seven notes.

Thb Hindus place the seven notes under the protection of seven Ad'hisht̀hátrř̈ Dévatás, or superintending divinities, as follow :

Shadja, under the protection of AGNI.
Rüshabha, of Brahma.
Gándhíria, of Sarasvatí.
Mad'hyama, of Maha'déva.
Panchuma, of Srí or Lacshmí.
Dhaivata, of Gan'e's'A.
Nisháda, of Su'rya.
$O_{F}$ these notes, there are four descriptions: Ist the Bádi. which is the Ans'a or key note; and is described as the Rájá on whom all the rest depend; the 2 d is Sanbádi which is considered as the Mantri or principal minister of the Rája; the 3d are Anubádiz, described as subjects attached to their Lord ; Ath Bibádi, mentioned as inimical to bim *.

- The three last distinctions seem to correspad to the Homophonia, Paraphonia, and Antiphonia of the Grecks. Gaudin insus, in his Harmonick Introduction, explains Paraphomia, a mean detween consonance and dissonance; where the sound, to the ear, appeate consopant. H. T.

The Hindus divide the octave into twenty-two intervals, which are called S'ruti, by allotting four S'ruti to represent the interval which we call a major tone, three to describe a minor tone, and two the semi-tone: 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 semi-tone is half a major tone, and that the minor tone is a medium between the major and semi-tone, 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 semi-tones, this will give twenty-four quarter tones or S'ruti; but by allowing three to represent each of the two minor tones, instead of four, there will remain only twenty-two, the number of $S^{\prime}$ ruti admitted.

The $S^{\prime}$ rulis a.le personified as so many nymphs; and, in the Sangila Reetnácara, are thus named and arranged + .

t The names, exhibited in the Sangita Dámídara, are quite different. They seldoin occur except in the writings of authors treating on music. H. T. C.


To Madhyama or


To Panchama or
$\xrightarrow{P a \ldots . .} 4\left\{\begin{array}{l}\text { Cirti } \\ \text { Ractá } \\ \text { Dipari } \\ \text { Alápini }\end{array}\right.$

The Hindus have three Grámas or scales: viz. Shadja-Gráma, Madhyama-Gráma, and Gándhûru-Gráma. The foregoing arrangement of the S'ruti is that of the Shadja Gráma, which consists of two disjunct, but perfectly similar, Tetrachords, separated by a major tone. The Madhyama-Grama is formed from this, by a transposition of the major tone between $P a$ and $D h a$, and of the minor tone between $D$ lia and $N i$; thus the technical language of Hindu music, Dha takes one S'ruti from $P a$, and becomes thus possessed of four, leaving three to $P a$.

The two Grámas may be thus zepresented.
Tetracherd.
Tetrachord.


460
OF THE MUBICAE SCALES


When the change of key requires a different moduJation, the changes in the disposition of the S'ruti are called Vicrit : they reckon twelve such.

When a note is to be rendered graver or deeper, they say that such a note takes one or more S'ruti from the note immediately below it, as in the example of the change from the Shadja Gráma to the Madhyama' Grama, where Dha is made one Sruti flatter than in the former scale. .

If a note is to be raised, the expression is, that suck a note gives one or more $S^{\prime}$ ruli 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 Gandhara Grama is formed from the Madhyanma Grama; and, in the construction of it, the Sangila Darpana points out three changes in the scale.

1st. Gandhara takes one Sruti from Rushabha, and becomes of three, i. e. by rendering the third note $G a$ flat, the interval between $R i$ and $G a$ tis reduced to a
semi-tone, and that between $G a$ and $M a$ becomres a minor tone.

2d. Panchama loses one S'ruti to Gandhara.

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 Gandhara. The three S'ruti of Panchama make the interval between the 5 th and 6 th : by losing one, it is reduced to a semi-tone; but it cannot lose this one to Gandhara, which is the third note. There are but two methods of reducing this interval to a semi-tone : 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 nusic, by giving one of Panchama's S'rutis to Dhaivata.

3d. Suddhaswara gives one S'ruti to Nishada. Here Nishada is rendered one S'ruti 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 S'rutis. It may, therefore, be applied, in this case, to Dhaivata; for, although it may give one S'ruti to Nishada, yet it gains one from Panchama, and still retains four complete $S^{\prime}$ rutis.

IF these conjectures are admitted, and we compare it with the Madhyama Grama (to which these changes evidently refer), it will stand thus :

462 OF THE MUSICAL SCALES


That the Hindus probably, by this division of the octave, meant nothing more than what I hane before supposed, map 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 S'ruti of the Hindus, and to show the difference.

Malcolm's series of the octave. Malcolm's series of the octave. $\begin{array}{lllllllllllllll}\frac{3}{9} & \frac{4}{5} & \frac{3}{4} & \frac{2}{3} & \frac{3}{5} & \frac{5}{15} & \frac{1}{2} & \frac{3}{9} & \frac{5}{6} & \frac{4}{4} & \frac{2}{3} & \frac{5}{8} & \frac{5}{9} & \frac{1}{2}\end{array}$

Major Mode
or
Madhyama Gráma.

|  |  |  |  |
| :---: | :---: | :---: | :---: |
| $182 \frac{8}{9}$ | $\frac{1}{9}$ | $4 \frac{8}{9}$ | 4 |
| $\frac{8}{9} \& \sim \frac{4}{5}$ | $\frac{4}{45}$ | $3 \frac{41}{45}$ | 3 |
| $\frac{4}{5} \& \frac{3}{4}$ | $\frac{1}{30}$ | $2 \frac{1}{5}$ | 2 |
| $\frac{3}{4} \& \frac{2}{3}$ | $\frac{1}{12}$ | $3 \frac{2}{3}$ | 4 |
| $\frac{2}{3} \& \frac{3}{5}$ | $\frac{1}{15}$ | $2 \frac{14}{15}$ | 3 |
| $\frac{3}{5} \& \frac{8}{15}$ | $\frac{5}{75}$ | $2 \frac{14}{15}$ | 4 |
| $\frac{8}{15} \& 2 \frac{1}{2}$ | $\frac{1}{80}$ | $1 \frac{7}{15}$ | 2 |

Minor Mode
or
Gándhára Grama.

If we revert to the Shiad'ja Grama, we shall find it composed of two disjunct, but perfectly similar Tetrachords, separated by a major tone: both Telrachords are expressed by the name numbers 4.3.2; 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 similtude.

There are three kinds of characteristic melody for the structure of Ragas, either by the use of all, or the exclusion of one, or two, particular notes. Those Ragas, in which the whole seven notes are employed, are called Hamir, huran. Those, which exclude one particular note, and only use the remaining six, are called Cadhir. Those, which exclude two particular notes, and only reserve five, are called Orav. There is a passage in Dr. Bufney's history of music, and one in the British Encyclopædia (speaking of the Guglia Rotta*, or the broken pillar lying in the Camius 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: F. F. G. A ; if tuned in fifths, they would produce an octave, or two disjunct Tetrachords.

[^164]This may possibly explain the principle of the construction of the Shadja Gráma 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 Madhyamia Cráma is evidently our major mode; and, if I am right, that of Gándhára is our minor mode.

The extent of the Hindu scale is three Septacas; which are thus fancifully described : the lowest or first Septaca, called Mundra sthána, is derived or produced from the navel, extending upwards to the chest; the second Madhyasthana, from the chest to the throat; the third Tarasthana, from the throat to the brain.

The scale is denominated Gráma, (literally village, because there is in it the assemblage of all the notes, S'rutis and Mürchhanás, 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 Gramas; it appears to me, that the Shadja Gráma takes its name from the lowest note in that scale, as being the foundation of the first Teirachord; the second Tetrachord being apparently formed from the first by fifths: in which case the 0 th must necessarily be more aiute than in the Diatonic scale; and the interval between the 5th and 6 th is therefore represented by four S'rutis to sig. nify, that Dha bears the same proportion to $P_{a}$; that $R i$
Vol. IX,
2 H
does to $S a$. The intervals of the Shadja Gráma mary be represented as follow :

The modulation of the Madhyama Gráma probably took its rise from making Madhyama the 5 th note in the scale : in which case you will have

$$
\begin{aligned}
& \text { Ni sa ri ga ma pa dha. } \\
& \text { Si ut re mi fa sol la. }
\end{aligned}
$$

This is precisely the diatonic scałe 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 S'ruti from Pa. The alteration, thus suggested, they adopted; and with it formed their 2d scale from the Shedja Grama, giving it the name of Madhyama, probably to denote its origin.

The Gándhára Gráma appears to have a similar origin; by making Gändhára the 5th. This will pro: diace.

$$
\begin{array}{lllllll}
\text { Dha } & n i & \text { sa } & \text { re } & \text { ga } & \text { ma } & \text { pa. } \\
\text { La } & \text { si } & \text { ot } & \text { of } & & & \\
\text { re }
\end{array}
$$

Which is the natural minor mode La: but keeping $S_{a}$ as their first note, the Vicrits, or changes before mentioned, became necessary, to give it the same modulation ; and it was probably called Gándhüra Grama to denote its origin.

Or the notes and S'rulis I have spoken above. I slall now endeavour to explain what these Múrchhanas are; or rather what I conceive them to be. Each Grama is said to contain seven Murrchhanas: hence they reckon twenty-one in all.

Sir W. Jones says they appear to be no more than seven pieces of diapason multiplied by three, according to the difference of pitch in the compass of three octaves *. But the Múrchhanas are described to be the seven notes, each arranged in its proper station in the scale, which renders them fit to be applied in the composition of the Ragas, \&c. It appears to me therefore, that they are the intervals of each Grama, which I would arrange as follows.

The S'hadja Grama is composed of two disjunct but perfectly similar Tetruchords, separated by a major tone, and both Tetrachords have a major third; the Múrchhanas of this Grama I suppose to be


- In citing a passage from the Epick Puem on the death of Sisupala, which is entitled Mágha, Sir W. Jones translated Murghhana, "musical interval." (See As. Res. vol. tst. p. 265.) He afterwards gave a different interpretation of it, (vol. 3d. p. 71,) as stated in the text. In his version of that passage, $\mathrm{S}_{1 \mathrm{R}} \mathrm{W}$. Jones mistook the nieaning of the term Sruti, (which is there translated ear, instead of quarter tone,) but he has rightly explained it in his treatise on the musical noodes of the Hithdus. H. T. C.

The Murchhanás of Madhyama Grama:
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.
7 th. —— Sa to Ni .
sth. $\quad$ Sa to Sa .
Mürchhaná of Gündhára Gráma :
Sa to Ri .
Sa to Ga , minor third.
Sa to Ma .
Sa to Pa .
Sa to Dha, minor fixth.
Sa to Ni .
Sa to Sa .
The Múrchhanás are all personified, and diftisiguifhed by names *, viz.

Those of the Shadja Gréma, are:
1ft. Uitara mundí.
2d. Uitarayita.
3d. Réchaní.
4th. Sud'haprajaya.
5th. Sancita.

[^165]6th. Chacranta.
Those of Madhyama Grama, are :
1st. Saubiri.
2d. Harina.
3d. Culopantá.
4th. Sudha mad'hya.
5th. Marghi.
6 th. Purvi.
7th. Risshica.
Those of Gaudhára Gráma, are:
1st. Mandrá.
2d. Vis'ála.
3d. Sumuchi.
4th. Chitra.
5th. Rohini or Chitravati.
6th. Suc'ha.
7th. Alapa.
The use of these Múrchhanas is, in my opiniof, 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 fhort 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 2 d July, 1806, that the Society do publish, from time to time, in volumes distinct from the Asiatick Researches, translations of fhort works in the Asiatick languages, and extracts and descriptiveaccounts 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 $A$ sia, the series of volumes will be entitled. Bibliotheca Asiatica, or a descriptive Catalogue of Asiatick books with extracts and translations.

Obiental 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.

## DIRECTIONS TO THE BINDER

## FOR PEACING THE

## TABLES AND PLATES.

P*GE
Table of Experiments on Refraction, to front ..... 12
Plate of a Hygrometer, ..... 27
Table of the Kings of Magad'ha, ..... 116
Plate II. Image of Gomat Iswar, ..... 256.
Plate III. Images at Conjeveram and Toomcoor, ..... 264
Plate IV. Image of Jain-Deo, ..... 272
Plate V. Sculpture and Inscription at Sravangoody, ..... 278
Table of Nacshatras, ..... 323
Figure of Boswellia Serrata, ..... 377
Figure of an improved Hygrometer, ..... 394
Fac-simile of Inscription found at Tipura, ..... 401
Fac-simile of an Inscription found in the district of Gorakhpur ..... 407


[^0]:    - 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.
    Vol. IX.

[^1]:    * 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 Trivandeporum, the latitude of that station by "Aldebaran was $11^{\circ} 44^{\prime} 52^{\prime \prime} 59$. The latitude by Regulus was " $11^{\circ} 44^{\prime} 47^{\prime \prime} 84$, and the latitude by $a$ Orionis, $11^{\circ} 44^{\prime} 40^{\prime \prime} 91$. I had " made observations by the same three starsat Paudree station, where " those by Regulus and $\alpha$ Orionis were oflen interrupted on account of " the bad weather, and consequently left doubtful: but the differences " notwithstanding were nearly the same, \&c. Though these obser" vations 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 re" spect 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."

[^2]:    * By Halley.
    + Euler, after a number of experiments on the immediate effects of heat and cold, on the refractive powers of media, concludes, "that, " in all translucent substances, the focal distances diminish with the " heat, which diminution, he conceives, is owing to a change in the

[^3]:    " reffactive 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.

    - Whose assistant I then was.

[^4]:    * The barometer was a common one, the property of Dr. Heyne, the company's naturalist. The thermometer, one of Fabrenheit's division.
    $\dagger$ The beards of the wild oats have been used in England for a similar purpose (see Hutton's Dictionary, art. Hygrometer).

[^5]:    * 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 elouds) the refraction is never so inconsiderable as in tie 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 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.

[^6]:    * Where $D$ expresses the increase of density, $B$ the height of barometer at the time of observation, $\boldsymbol{B}^{\prime}$ 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.

[^7]:    * The mean difference of refraction, between the top of the flagstaff and the Mintapum, (on 38 contemporaneous observations) is $16^{\prime \prime} .44$; and that between the top of flag and Muntapum is $22^{\prime \prime} .51$, where the order is inverted by $6^{\prime \prime} .07:$ 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 $6^{\prime \prime} .08$ likewise in the inverse order.

[^8]:    * At Madras, the greatest alteration was observed 0.75 inches: and in the mean anuual change 0.53 . At Banswary, 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.

[^9]:    * 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.

[^10]:    N, B. In this table Zero is to be taken between the signs + and -

[^11]:    * 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.

[^12]:    * It is the Andropogon Contortum of Linneeus, and may be easily distinguished from all others, by the seeds attaching themselves to the clothes of those who walk where it grows.

[^13]:    - In my first experiments I used a wheel made of card paper, with an axis of wood, which answered very well.

[^14]:    * Vol. 3d. p. 241. In the original $\ddot{i}_{\infty}$ and probably should be read Magata.

[^15]:    * Nonn. Dionys. lib. 26. v. 87.

[^16]:    *Nomi Dionys. lib. 26. v. 294.

[^17]:    * Ayin-Acberi. Vol. 2. p. 120.

[^18]:    * Gens vero Modo-Galica, ü qui vulgo dicuntur Mogi, quamvis nostrá memoriáa a Patanicis et Tybreris ultra Balsaris rivum pulsi Arracmi consistunt. P. Monserrat de legatione Mongolica, Vol. the 1st. p. 19, a manuscript in my possession.

    VoL. IX. 00 astod G

[^19]:    *. Hygin ${ }_{4}$ Poetic, Astronom. p. 471.

[^20]:    - Plutarch. de flumizibus.

[^21]:    * Nonn. Dionys. lib, 34. v. 197.

[^22]:    * Diodor. Sic. lib. XVII. c. 91. Arrian also, \&e,

[^23]:    * Rajjagrihé nugarè Mágadhànàm Ràjà Ambuvícha sa Caranaih chacshushàdihinab. Tasyàmàt yó mahá Carni íswary rajánam avamanyaté amátóádhína iti carnoctilh.

[^24]:    * Asiat. Researches, Vol. 4. p. 22.

[^25]:    * Oppian Cynoget. lib. 4. v. 168.

[^26]:    * Asiat. Researches, Vol, IV. 227.

[^27]:    * D'Herbelots's Bibl. Orient. v. Sulkiman.

[^28]:    * In the Bhója-praband'ha.

[^29]:    * Ayin-Acberi, vol. 2d, p. 54.

[^30]:    - Vol. II, p. 54.
    ${ }^{7}$ Asial. Restarelies, Vol. I.

[^31]:    * Asiat. Researches, Vol. VI. p. 35.

[^32]:    * Asiat, Researches, Vol. 1st. p. 129.

[^33]:    *Vol. 2d. p. 55.

[^34]:    - Fol. 2d. p. 53.

[^35]:    * See before, p. 157.

[^36]:    * Ayin Acberi, Subah Tatah.
    $\uparrow$ Yel. 3d. Accoant of Sircar Tatah, P. 147.

[^37]:    * Vol, 2d. Account of Sircar Tatah, p. 147.

[^38]:    * Vol. 2d. p. 56.

[^39]:    - Vol, 2d. p. 115.
    $\dagger$ Vol. 2d. p. 62.

[^40]:    - Beschreibung von Hindustan, p. 111.
    + Soobah Malwa, vol. 2d. p. 61. See above, p. 161, 162.

[^41]:    * Page 146 .

    N

[^42]:    * Ayiu-Acberi, Vol. 2d. subah Gujjerát, p. 89.
    ${ }^{4}+$ See D'Herbelot, Dabsehelim and Dabschalimat.

[^43]:    * See accounts and extracts of the MSS. in the library of the king of France, vol. 1st, p. 124.

[^44]:    * Ayin-Acberi, Vol. 2d. p. 89. 90.

[^45]:    * Ayin-Acberi, Vol. 2d. p. 91, 95.
    + See Ayin-Acberi, Vol 2d. p. 84. The true name is, I am told, Chittrore.

[^46]:    Ayir-Acberi, Vol. 2. p. $97 . \quad+$ Ibid. p. $98 . \quad \ddagger$ Ibid p. 101.

[^47]:    *See D'Herbelot's Bibl. Otient. v. Balhar.

    + This ${ }^{5}$ also confirmed by Aeul-Fazil. See Ayin-Acberi, Vol. 2d. p. 87 , Vol. IX.

[^48]:    - Ayin-Acberi, Vol. 2d. p. 83.

[^49]:    * Asiatic Researches, Vol. III. p. 216. \&c.

[^50]:    (nu) See Tamuli dictionary. + Ayin-Acberi Vol, 1, p. 331.

[^51]:    * See Kempfer.

[^52]:    * Vol. 2d. p. 62.
    + Deguigues Histy. of the Huns, Vol, 5. p. 50.

[^53]:    * Page 164.

[^54]:    *Salmasius de Homonymis, and Alphab. Tib. P, 370.

[^55]:    - Oppiani Cynegetica, lib, 40, v. 164.
    $\ddagger$ Hist. des Huns, vol, 1, p. $59 . \quad \ddagger$ Ditto, p. 164.

[^56]:    - Val. 2d, Tucsim Jumma, p. 84

[^57]:    * Philostorgius, p. 487. Ammian. Marcellin. lib. 220. Diu is called Dib in the Ayin-Acberi, Vol. 2d. p. 94.

[^58]:    * Ayin-Acberi, Vol, the 2d. p. 146 and 149. +Do. p. 145.
    $\ddagger$ One of them was several years in the service of Gholam Mohammed Abassi, ruler of Sind. Abassi signifies a descendant of Abbas, not an Abyssinian.

[^59]:    *Ayin-Acberi, Vol. II. Tukseem Jumma, p. 97, 100, and 103. $\dagger$ Vol. II. p. 142. $\ddagger$ Plutarch de flum.

[^60]:    * A legendary tale has been adapted to it, as usual; which is, that the head of GANE's'A fell there. Hence it is called Ganes' (ca-mudá, the head or scull of GANE'SA'; and a few miles inland, is a place of worship, called Muda-cata Gane'sa', where it is supposed to have fallen.

[^61]:    * It is the Tamarix Indica K@M,

[^62]:    * The original MSS. of Monserrat's travels is in my possession. He speaks here from report only, and he accompanied the Emperor Acbar in his expedition to Cabul. $\dagger$ Arrian. Periplus, p. $23 . \quad \ddagger$ See the Nubian Geographer, p. 60.

[^63]:    * Peripl. Maris Erythrei, p. 24 and 27.
    + Plutarch, de flum. v. Hyphasis.

[^64]:    * See Abul Feda, in the first vol. of Thevenot's collection, \&c.

[^65]:    Asiatic Researehes, Vol. VI. p. 8.

[^66]:    * History of the East Indies, by CAPT. Cope, p. 24.6 $\dagger$ See Mandelslo and others.

[^67]:    * Ayin-Acberi, Vol. II. p. 99. + Ayin-Acberi, Vol. II. p. 98.
    $\ddagger$ Puranas, prophetic chapters. § Ayin-Acberi, Vol. II. p. 72

[^68]:    *This designation belongs to those named in the subsequent list. H. T. C.

[^69]:    * The Ballols or Balharas, as Sovereigns or Emperors of India, are mentioned in the relation of two Mahommedan travellers translated by Renaudot. C. M.
    + So the Jains affect to call the followers of the Védas, as believing on hearsay, what they cannot know, or demonstrate to be true, from the evidence of their senses. C. M.
    $\ddagger$ This must arise from employing, at those ceremonies, Bralmens

[^70]:    of the orthodox sect. The Jains, themselves, do not appear to vorship fire. H. T. С.

[^71]:    * 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 woolly bair. C. M.

[^72]:    *See Menu 3, v. 68. The same notion occurs there; but the orthodox haye sacraments to expiate the involuntary sin. The Jains,

[^73]:    not admitting the efficiency of religious acts, are content to use preeautions to avoid the sin. H. T, C.

[^74]:    * This image is represented in the annexed drawing. At Kurcul, near Mungalor, there is also a gigantic image of Gómatéswar. C. M.

[^75]:    * Oceans of years. This measure of time will be subsequently explained. H. T. C.

[^76]:    * Nirvianí, in Hémachandra's vocabulary. +Mahayasas, H. $\ddagger$ Vimala, $H$. § The 5 th is Sarva'nubhu'tí, and 6th Srídhara, according to Hémachandra. Il Datta, H. If Unnoticed by Hemachandra. ** Da'módara, H. H Unnoticed by He'machandra, who states, 9th SUti'ja, 10th SWa'mí, and 1.1th Munisuyrata.

[^77]:    * Unoticed by Hémachandra. $\dagger$ 'Sivagati, H. $\ddagger$ Anila, H. §Crtia'rt'ha, H. || Jíne'swara, H. ft Sivacara, H. + Syandana, H .
    ** Padmanábha, according to He'machandra. It Supa'rs'waca, H. \#Sarva'nubhu'ti, H. Se Dévas'ruta, H. Ill Udaya, H. IIt Pét'hála, H. *** Póttila, H. H†'Satacírti, H.
     H. **** Ya'sód-hara, H. HH Vijaya, H. t t\#t Malla, H.
     the preceding (ARA), adds Bhadracrit as the 24th of these JiNAs.

[^78]:    * 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 Jainas, though repeatedly mentioned in these papers. Perhaps the present or fitth age, according to their computation. may be here meant: it begins the fourth year after Vard'hama'na's demise. H. T. C.
    + I have been informed by Jainas in Bengal that they reckon Vard'hama'na to have lived 580 years before the Era of Vicramáditya. H, T. C.

[^79]:    * Meaning Vard'hama'na's eldest disciple, named Indrabни́ti, and surnamed Gautama, because he was of that family or Gótra. H. T. C.
    + Sud'harma was one of Vard'hama'na's disciples, and the only one who has left successors. H. T. C.
    $\ddagger$ The disciple and successor of Jambuswamí, was Prabhava. The person, who furnished this list, has skipped from Sud'harma's disciple to some priest, who may have been his remote successor, at an interval of several hundred degrees. H. T. C.

[^80]:    * Plate 2.

[^81]:    * Ra'ma'nuja, the famous author of the Sri-bhashya, and reformer of the 'Saiva doctrine, was born A.D. 1008. The invocation to him shows, that the inscription was placed with the consent of goverament. C. M.

[^82]:    * The five Lingams, signifying the powers of nature united in its five component elements, are sometimes seen in this form. C. M. $\dagger$ Plate 4.

[^83]:    - Some of these have been discovered lately (1804) by MR. William Brown, containing sculptures, inscriptions, \&c. of which it is probable, that copies may be procured. C. M,

[^84]:    * Plate 4, a.

[^85]:    * A figure cross legged has been since discovered on some of the sculptures found there. C. M.

[^86]:    * I am informed, that the Jains have a legendary history of RA'machandra, which is termed Padmapurána, and is quite distinct from the Purana received under that title by the orthodox Hindus. H. T. C.

[^87]:    * Perhaps the 56 Antara-dwipas are meant. H. T. C.

[^88]:    * Within four miles of Chinráy-pattan.

[^89]:    - Cercal. Rennel's map, (U. 1.)

[^90]:    * Jaina Priests usually bear a broom adapted to sweep insects out of their way; lest they should tread on the minutest being.

[^91]:    *I understand that their Vais'ya class includes eighty-four tribes: of whom the most common are those denominated O'swál, Agarwál, Pariwár, and C'handéwál.

[^92]:    *See As. Res. vol. 7, p. 415.

[^93]:    * Vol. 2, p. 178.
    $\dagger$ The copy which I possess, belonged to a Bráhmana who died some months ago (1805) in Calcutta. I obtained it from his heirs.

[^94]:    - Relation d'un voyage. Tackaud. Laloubere, Royaume de Sian.

[^95]:    
    
    

[^96]:    
    
    
    

[^97]:    
    
    
    $\ddagger$ Pliny, lib. 7. c. 2. Solin. 1. 52.
     ${ }_{\text {q }}$ к日шotwhitiv, Step. de Urbibus, ad vocem Brachmanes.

[^98]:    * Porph. de Abstinentia, lib. 4.
    † Kat por סox\&aw, \&c. Strom. lib. 1.
    $\ddagger$ Strom, lib. 3, \&c.

[^99]:    * Same with the Hylobii of Strabo. C.
    
    
    
    
    
    
    $\ddagger$ The passage has been interpreted differently; as if CLEMENS said, that the Allobii were those who worshipped Butica. (See Moreri Art. Sammanéens.) The text is ambiguous.

[^100]:    * Two of these names occur in Captain Mahony's and Mr. JoinVIlle's lists of five Budd'HAs. As. Res.:ol. 7, p. 32 and 414.
    + I understand that the Jainas have a mythological poem entitled Harivansí puráná, different from the Harivansá of the orthodox. Their Ischw acu, likewise, is a different person; and the uame is said to be a title of their first JINA, RISHABA DEVA.

[^101]:    * See pages $260,261,262$.

[^102]:    *The divisions of time have been noticed by Major Macken21E, p. 257, aud will be further explained.

    Vol. IX.

[^103]:    4. The life of this Jina is the subject of a separate work entitled Sántipurína.
[^104]:    
    *I understand this to be a mountain situated in the west of Indias: and much visited by pilgrims.

[^105]:    -The Jainas admit numerous Indras ; but some of the attributes, stated in this place by the Calpasutra, belong to the lindra of the Indian mythology.

[^106]:    * The most ancient copy in my possession, and the oldest one which I have seen, is dated in 1614 samvat: it is nearly 250 years eld.

[^107]:    - 1.000.000.000.000.000 palyas = one súgara, or sagarópama,

[^108]:    - A commentary on these hymns is dated in Saca 1214 (A. D. 1292); but how much carlier Hémachandea lived, is not yet ascertained.

[^109]:    - Gólád'hyáya. 5. 3. v. 8 \& 10.
    + Ures Binino.

[^110]:    * Lacshmi'da'sa, Muni's'wara, and the Vásanabhashya.
    $\dagger$ The Sangrahan'í ratna and Lócanáb sútra, both in Prácrit, are the authorities here used.
    $\ddagger$ This is explained to be a measure of space, through which the

[^111]:    - Each great Yójana contains 2000 cós.

[^112]:    - Another Brahmesidd'lunta is entitled the Sacalyasanhita. The author of the Marichi, therefore, distinguishes the ope to which he refers.

[^113]:    * Sphutávichhípa and Sphutädhruvaca; which will be explained further on.
    $\dagger$ Ranganatiaa and Phud'hara.
    I In the Väsandubháshya and in the Marichio.

[^114]:    - Father Petau, and, after him, Bailiy, for reasons stated by them (Uranol. Dissert. 2. 2, Ast. Anc. p. 428.), are of opinion, that the ancient astron mers referred stars to the Equator; aind 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 intersected by circles of declination, in the manner, which has been explained.
    $t$ Bqudihaza is the most explicit on this point.

[^115]:    - Brahmpgupta wrote soon after that period; and the Sítya Siddhanta is probably a work of nearly the same age. Mr. Bexty LEEY considers it as more m dern (As. Res, vol. 0.) : it certainly cannot be more ancient; for the equinox must have past the beginning of Mesha, or have been near it, when that work was compused.

[^116]:    - Costard's Hist, of Ast. P. 51. Bailly Ast. Jpd. P. 134,

[^117]:    - Payiniti.ii. 63.

[^118]:    - Hyde's Com. p. 51.
    z 3

[^119]:    - Ulugh Beg, p. 94. and Hyde's Com, 54.

[^120]:    - Hyde's Ulugh Beg, p. 53, and Com. p. 34.

[^121]:    - According to the longitude of the three brightest stars of Aries, as stated by Ptolemy, viz. $10^{\circ} 40^{\prime}, 70^{\circ} 40^{\prime}$ and $6040^{\prime}$, (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 $6020^{\prime}$ from the star which the Hindus have selected to mark the commencement of the ecliptick.
    $\dagger$ By the celebrated Nasirúdoin Tusi'; from the Arabick yergion of 15 hak bị Hunen, which was revised by Thabit,

[^122]:    "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 raund 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

[^123]:    - They are the Colures.

[^124]:    - Among others, that of the precession of the equinoxes; respecting which different opinions are stated by Bhascara. It appears from what is said by him, that the notion of a libration of the equinoxes has not universally prevailed among Hindu astronormers. The correcter opinion of a revolution of the equinoctial poiuts was advanced by some authors, but has not obtained the general suffrage of Hindu writers on astronomy.

    Vol. IX.

[^125]:    - As. Res, yol. 2. p. 393.

[^126]:    * Book 12. C. 2.
    $\ddagger \$ 32000$ common years.

[^127]:    - Part 4. Ch. 23. v. 32. \&c.
    + Prasna 2. ch. 2.

[^128]:    * Hipparchus tells us, that Eudoxus drew the colure of the solstices, 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 Chelæ; 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-band of Perseus." Sin I. Newton's Chronology, §. 29. Hipparch. ad Phenom. in Petavii Uranologia, p. 207, 208. Bailly, Att. Anc. p. 500, Costard, p. 136.

[^129]:    - Prgpace to the Sanscrit edition of the Hitipadesa, p. xi.

[^130]:    - As. Res. vol, 2, p. 302.
    $\dagger 1$ Vishcumbha, 2 Príti. 3 Ayushmat. 4 Saubhágya, 5 Sóbhana, 6 Atiganda. 7 Sucarman, 8 Dhriti. 9 Súla. 10 Ganda. 11 Vridd'hi. 12 Dhruva. 13 Vyágháta, 14 Hershana. 15 Vajra. 16 Sidd'bi. 17 Vyatipáta. 18 Varíyas. 19 Parigha. 20 Siva. 21 Sidd'ha. 22 Sádhya. 23 Subha. 24 Sucla, 25 Bralman, 26 Aindra, 27 Vaialuriti.

[^131]:    They answer successively to half a Tithi orlunar day; Cintughina being always assigned in the first half of the first $T_{i}{ }^{\prime} t h i$; and the variable Caranis afterwards succeeding each other regularly, through eight repetitions: they are followed by the three remaining invariable Caranar, which conclude the month; Chatuhpád and Nága appertaining to Amívasyí or the new moon, and Sacuni being appropriated to the latter balf of the preceding Tith:

[^132]:    * An eagle : or else a gigantick crane, Perhaps a volture.
    + Santalum Album sive Sirium myrtifolium.
    $\ddagger$ Butea frondosa.
    § Bombax heptaphyllum.
    VoL. IX.

[^133]:    đ Michelia Champaca.

[^134]:    - A sea monster. Perhaps the Narwhal may be intended.
    $\uparrow$ A human figure with the head of a borse.

[^135]:    * In the following order, beginning from Aries: viz Mars, the Sun, Venus, Mercury, the Moon, Saturn, Jupiter, Mars, the Sun, sc.

    Ikhwèinu' I Safä.
    $\dagger$ Firmici Mathesis seu Astron. vide infra.
    $\ddagger$ Salmasii Plinianæ Exercitationes, p. 652.

[^136]:    * Sic et Nekepso Ægypti justissimus Imperator, et Astrologus valde bonus, per ipsos Decanos omnia vitia valetudinesque collegit, ostendens quam valetudinem quis Decanus efficeret, \&c.
    $\dagger$ Erant Decani den s militibus propositi. Veget. 2. 8,
    $\ddagger$ 'Ous twas exansoav derevols oi' wanabor.
    § Huetii animadversiones ad Manilium. Lib. iv. v. 198.

[^137]:    - Bhascara expressly says, "By ancient astronomers, the purpose of the science is declared to be judicial astrology; and that, the apparent places of the planets."

[^138]:    - His pupil Gahn, in a treatise on officinal plants, written and published in 1753, and inserted in Fund. Bot. yol. 2, has so stated it, without specifying the species. This was probably grounded on the Materia Medica of Linneus published in 1749. Murray cites that work of Linneeus, for the observation, that it is yet uncertain whether Olibanum be produced from the Juniperus Lycia. Appar. Medic. T. 1. p. 55.
    $\dagger$ Martyn's Botan. Dict.
    $\ddagger$ Fourcroy, Syst. Chim, T. 8. p. 30. Thompson, 4. p. 344.
    § Les botanistes ignorent quel est l'arbre d'où découle cette résine précieuse. Linnæus a avancé, sans preuve, qu'elle étoit produite par une espèce de genevrier.

    Dict. D'Hist. Nat. published in 1803.
    II. Nibbuhr says, "We could learn nothing of the tree, from which incense distils; and Mr. Forskal does not mention it. I know, that it is to he found in a part of Hadramaut, where it is called Oliban." (Eng. Transl, vol. 2. p. $355^{\circ}$.)

[^139]:    - Pliny, 12. 14. Theophrastus Hist. Plant. 9. 2.
    $\dagger$ Poinsinet. Paris 1771 . tom. 4. p. 532.

[^140]:    - So Dr. Roxeurgr. But Perianth 1 -leaved, 5 -toothed; aceording to Dr. Hunter's observations and my own.
    + Coloured and adhering to the Calyx.
    $\ddagger$ Subulate and alternately slender.

[^141]:    6 Mantissa Aromatica.
    7 H. M. y. 7. p. 23.
    8 Fl. Coch. 30.
    9 Hist. Sum. 106, 117.

[^142]:    xo A catti is $1 \frac{1}{3} \mathrm{lb}$.

[^143]:    in A district near the southern extremity of the island, of whicb the soil is found peculiarly favourable to the cultivation of pepperThe oldest vines are in this district.

[^144]:    ¥3 Salmas. Exer: Plin, p. 1070.
    14 Id. ib. p. 1071, 1072.

[^145]:    16 Asiat. Res. v. 4, p. 303.
    17 Pl. Corom. No. 147.

[^146]:    * Andropogon Contorius.

[^147]:    * Servóru Trivedí ; the same who assisted me in decyphering the copy of an inscription on Firóz ShaH's pillax at Delhi. As. Res. vol. 7. p. 180.

[^148]:    - This use of the pronoun indicates the conspicuousness of the object ; as if sufficiently known without further designation.
    $\dagger$ Here, as well as with the subsequent names, the particle $c \boldsymbol{v}$ a is subjoined without changing the preceding vowel. This is conarary to the rules of the language, and emendations have been accordingly proposed : but I shall not disturb the text.
    $\ddagger$ The moon is named Sason, from a fancied resemblance of its spots to a leveret. Pandits, to whom I showed maps of the moon, copied from Heverius and Ricciolus, fixed upon the Lom Paludosa and Mons Porphyrites, or Keplerus and Aristarchus, for the spots, which, they think, exhibit the similitude of a hare.
    § The term is Arwaniband'hica, which the Pandits are disposed to explain as signifying "a general commanding cavalry." Other interpretations may be suggested : the word is an unusual one.

    II This, as indeed the whole of the verse, is obscure, and admits of varions interpretations. In this place, more than one reading has been proposed.

[^149]:    * 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.
    + Aswaniband hica.
    $\ddagger$ Indra.
    § A measure of land, still used in the eastern parts of Bengal; originally as much as might be sown with one Drona of seed : for a Drona is a measure of capacity. (As. Res. vol. 5. p. 96.) The Drona, vulgarly called Dún, varies in different districts. It may, however, be reckoned nearly equivalent to eight Bighas, or two acres and two thirds.
    |l Aswaniband'hica.

[^150]:    - This inscription appears not to be a grant by the sovereign; but a memorial of the grant recorded by the possessor, who inust have been the heir of the grantee, and who scems to acknowledge in this place the liberality of the grantor's successors continuing the land to him.
    $\dagger$ Corresponding to A. D. 1219.
    $\ddagger$ This prince is probably a different person from the grantor named in the fifth verse.
    § 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 Amıgachhi in Dinájpur.

[^151]:    - Siva, manifested in eight material forins : viz. Earth, Water, Fire, Air, Ether, the Sun, the Moon, and the person who performs a sacrifice.
    $\dagger$ Brahma the creator, himself not created, and therefore termed unborn.
    $\ddagger$ Vishnu, who reposes on the serpent Ananta or Sesha; and who has been incarnate in various shapes to relieve the world from oppressors.
    § Bhawaní or Durga slew Mahishasura. The legend is well known.

    If Bamboos (Bambusa Arundinacea and other species).
    ** The place here described may be $V_{i j e y-p u t, ~ o n ~ t h e ~ n o r t h e r n ~}^{\text {a }}$ declivity of the Vind'hya hills, a few miles from the temple of Vind'hyá-vásini near Mirzápur on the Ganges. It is the ancient residence of a family, which cla ms descent from the former sovereigns of . enares; and is still the abode of the head of that family. But the terms of the text, Uttaragiri catace, rather seem to signify 'declivity of the northern mountain,' than ' northern declivity of the mountain ;' and that interpretation points to the range of snow mouptains, instead of Vind'liya which is reckoncd a tropical range.

[^152]:    - The name of Jaraditya, is known as the patron of certain authors, who flourished at Casi; and who are considered as ancient writers. He is mentioned in the title of the Vámana Cásicá, and even termed the author of that grammatical work, I shall not undertake to determine whether this be the same person.
    $\dagger$ The names, being uncommon, are, in this instance, doubtful. Srimadali 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 Srimat Ali, or into Sri Madáli. The latter is most agreeable to the prevailing practice of prefixing Sri 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 \& 22.)

    Critacirti 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.
    $\ddagger$ The text exhibits Pracriti parabaddhacecsho. 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.

[^153]:    - Some parts of this long passage are obscure and diubtful. The fast stanza, with two preceding, omitting one, (that is the 29th, 30 h, and 32 nd) appears to be the same with three which occur in the grant preserved at Conjcueram, viz. 43d, 44 th , and 45 th. (As. Res. yo!. 3. p. 51.) But there are some variations between the reading of them in this inscription, and in the copy of the Conjiviram 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, Vátidera.

[^154]:    - Adaromi.

[^155]:    - Civamutior.
    § Bidnír.
    -I $\begin{aligned} & \dagger \text { Ph Philaci } \\ & \text { Sundi. }\end{aligned}$
    $\ddagger$ Mehisúr.
    || Sirá.
    $\dagger$ Ricizur.
    $\ddagger$ Candanut.

[^156]:    - This is the same stanza, which begins the two inscriptions found at Chitradurg, and which likewise occurs in a grant in the possession of a Brahmen at Nandigul; and in that preserved at Conjeveram.

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    \text { VoL.IX. } 2 F
    $$

[^157]:    * Ravana.

[^158]:    - Cuntala Desa, the ancient name of the province in which Curgode is situated; part of the Balliari or Adori District. M.
    $\dagger$ 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.

[^159]:    - Bos Grunniens.

    2 F 3

[^160]:    * Answering to A.D. 1173.
    $\dagger$ Corresponding to A.D. 11 si.

[^161]:    * One seems to be Narayana; perhaps Narayanapata.
    $\dagger$ The original seems to exhibit Samat: but this must be intended for Sambat or Samvat.

[^162]:    - Vol. 2. p. 26.
    † As. Res. vod. 5. p. 133,

[^163]:    * Such is the deduction from the text, which states a half eclipse of the sun in Chaitra, on the sun's entrance into the Uttardyana, or northern path, at the moment of Vyatipáta (which imports new moon on a Sunday in any one of the undermentioned Nacshatras, viz. Aswini, Sravant, D'hanisht'ha, Ardrá, Astês/ua, and Mrigasiras: the first of which is the only one compatible with the month). The words of the text are Cbaitramáse crishina [should be crishna] paoshe só . . . . . . . . . carana zitírayana san . . . . . . . . . . vyatipáta nimitté sirya prrvani ardha grása grihita [should be grihita] samdé [should be samaye].

    In the places marked with dots, the letters are wanting in the original.

    + See page 420 of this volume.
    $\pm$ As. Res. vol. 3. p. 50 . The verses are those numbered 50 \& 54 .

[^164]:    - A fragment of an Egyptian obelisk of the highest antiquity, which had been brought to Rome under Augustus. It is covered wish Hienoglyy hics.

[^165]:    攺* This lift is apparently from the Sangita Retnacara. The perponified Murch'hangs hape other mames in the Sangita Damodare. H. T. C.

