

Prior to my drawing this article to a close, I deem it an interesting topic, to make an observation on the region of Tchêlas, situated on the eastern bank of the Indus, four days' journey (more northward) from Pakhley and Dembor. This region is said to be highly remarkable for the number of ruined towns it contains. Although situated in the neighbourhood of the snowy chain, it may well have been the *Taktchashilas* of the Chinese Religious, a word which may be decomposed into *takt*, a throne, *chah*, a king, and *shilas* a corruption of *Tchelas*; and thus form a ground for a probable hypothesis, that the Greeks thence derived their *Taxila*. The inhabitants of Upper Suwat who repair to Tchêlas, cross the Indus at Goozer Chekhi, whence is visible on the eastern bank mount Mehoo, situated almost opposite the Cabool-Gheram ruins, which are discoverable on the contrary beach.

Higher up, on the upper branch of the Indus, lie the regions of Ghilghit, Ashoor, Goræi, Khélooman, and Balooman, formerly inhabited by the Caffers.

The ferry points of the Indus from Attok to the snowy ridge are the following: Attok, Bazar Hound, Monarí, Pehoor, Notchy, Kabbel, Chetabha, Amb, Derbend, Chetterbahi, Mabera, Toohara, Marer, Didel, Kamatche, Behar, Pachetlehi, Guendoo, Mattial, Battera, Jendial, and Manial, Kallehi, Palles-pattan, Pohoo-Goodje, Koonchir and Jalkoot.

ART. IV.—*Remarks upon the Rain and Drought of the last Eight Seasons in India.* By the REV. R. EVEREST, Landour.

In two former papers I endeavoured to trace the variations of the past seasons, as to drought and moisture, by means of the prices of corn, having assumed that the wettest years produced the most abundant harvest, and the driest the reverse. An examination of the subject shewed that the more extensively the averages of prices were taken, the greater approximation there was to a regular ascending and descending series, or curve, with recurrent periods of from six to ten years; thus leading to the belief, that, if the average of certain atmospheric phenomena over a surface sufficiently extensive could be taken, the result would exhibit recurrences nearly or altogether regular. I will now shew how far the Register of the different Rain Gauges corroborate or not this opinion. The following are the annual depths of Rain that have fallen in different parts of India during the last eight years.

	Calcutta, inches.	Madras, inches.	Bombay, inches.	Dehli, inches.	
1831	58.78	40.30	99.64	..	To obtain the average variation, let us take the maximum and minimum at each place, and divide the whole difference between them into one thousand parts; then for the number itself substitute the proportional part of the difference.
1832	50.25	20.07	78.20	..	
1833	60.36	36.99	71.00	14.15	
1834	68.73	40.17	66.59	36.85	
1835	85.50	37.26	62.19	27.70	
1836	45.66	47.59	87.99	35.00	
1837	43.61	49.27	64.99	10.55	
1838	53.02	54.33	50.78	20.31	

Thus at Calcutta we have 1835 1837
85.50 43.66

These will by the proposed substitution become ... 1835 1837
1000 000
and the whole will stand thus :—

Calcutta.	Madras.	Bombay.	Dehli.	Average.	
1831	362	295	769	..	475
1832	158	000	441	..	200 —
1833	400	246	452	137	309
1834	600	293	401	1000	573
1835	1000	250	352	652	563
1836	050	401	635	929	504
1837	000	425	376	000	200 —
1838	225	499	216	371	328

It appears from this average that the minimum has recurred in five years, which is a period somewhat shorter than we should have been led to expect from an examination of the prices of corn for many years back.

I have before stated, as one of the results of such an examination, that there was a more perfect recurrence at the end of fifty six years than at any other period. Thus comparing together different years with that interval between them, we have the following :—

Maxim : or years {1815.....1822-23.....1829.....1835-36
of abundance. }1759.....17671773

Minim : or years {1819-20.....1826.....1832
of scarcity. }17631770.....1776

In searching for data to elucidate this part of the subject, I obtained sight of an old manuscript Register in the Surveyor General's Office, from which I was enabled to compare the annual amounts of rain for the last eight seasons with those fifty-six years before. The Register appears to be imperfect, and, unfortunately, to have been kept by an illiterate person. The daily entries begin towards the latter end of 1776, but, from a note we learn what had been the annual amount of rain both in that year, and in the year previous. I here subjoin them, and place by the side of each the depths registered 56 years afterwards.

Annual depth of rain at Calcutta in inches.

Rain inches	Rain inches		
1775 55.24	58.78	1831	It will be observed that the depths are much less in the earlier period than in the later. This is partly owing to the height of the Gauge above the ground in the former case, for which allowance might be made, but this would not be worth while, as there are other sources of error which could not be calculated.
—1776 39.26	50.25	1832—	
1777 62.07	60.36	1833	
1778 59.30	68.73	1834	
+1779 64.51	85.50	1835+	
1780 64.20	45.66	1836	
1781 59.90	43.61	1837—	
—1782 41.07	53.02	1838	
1783 52.22			
1784 51.58			
+1785 69.75			

For the years 1784-85 we have another register published in the Asiatic Researches, which gives the annual amount thus:—

Year, 1784 1785.

Inches, 81.0 77.5

Let us now recapitulate the principal *maxima* and *minima* for 56 years. They are—

Max. 1779...1786...1796...1806...1815...1822-23...1829...1835-36

Min. . . 1782-3...1792-3...1802...1811-12...1819-20...1826...1832

The *maxima* for Bengal are generally earlier than the above. They are, 1784-5 1794 1804 1813.

On referring to the list we see that no *minimum* recurred at the end of 56 years from 1782 viz. in 1838; but somewhat earlier, viz. in 1837. It was not, however, to be expected that the recurrences would happen regularly in the same locality, and our lists are much too few to enable us to estimate the average effect over the whole surface of the country. The *maxima* above stated shew very nearly four equal intervals of seven years each = 28 years; one of ten years, and two of nine years each = 28 years.

Admitting the case to be as we have supposed, then we might reasonably expect that similar phenomena would be observed in other parts of the world, in particular, such lakes or large natural reservoirs as the Caspian, and the North American lakes would indicate, by their increase or diminution, the variations of the seasons over an extended surface, better than any other artificial means that could be devised. In Brewster's Edin. Journal of Science, vol. 7. 1827 (July to October), we find a paper by Mr. De Witt Clinton, on the periodical rise and fall of the North American lakes. Unfortunately no record has been kept of the changes, but it is stated that there is a rise for three years, and a corresponding declension—being altogether a period of six years. It is added, that some extend the time of rise to five, and others to nineteen

years. Probably these periods would be more correctly stated at $4\frac{2}{3}$ and $9\frac{1}{3}$ years respectively, which would give recurrences at the end of nine and nineteen years. Some particular times of *maxima* and *minima* are stated ; they are—

Max. 1797 1815.

Min. 1802–1811 1822.

These numbers (except the last) nearly coincide with our own, which are for the same period—

Max. 1796 1806 1815 1822.

Min. 1802 1811

It must be recollected that these periods of the North American lakes are only stated from the memory of the inhabitants ; and besides it is almost too much to expect that the changes in distant parts of the world should be exactly contemporaneous.

ART. V.—*Statistical Record of the duration of diseases in 13,019 fatal cases in Hindoos.—Extraordinary mortality among Lying-in Women—Compiled by Dr. DUNCAN STEWART, Superintendent General of Vaccination.*

NOTE. The Table is compiled from the Bills of Hindoo Mortality kept by the Police authorities at the different ghauts where Hindoo obsequies are performed. The information is derived from the relatives accompanying the body to the ghaut, and is therefore not liable to suspicion, although there may be some little laxity on particular points. The registers thus obtained assign the name, age, sex, caste, occupation, and residence of every individual—the illness whereof he died, and the number of days he was ill—also the names of his father, of his nearest heir, his priest, and the doctor who attended him. Some of the former items I have elsewhere tabulated for the information of the Municipal Committee, in illustration of the localities in Calcutta most favorable



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