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PROCEEDINGS

OF THE

ASIATIC SOCIETY OF BENGAL.

EDITED BY

THE HONORARY SECRETARIES.

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JANUARY TO DECEMBER,

1895.

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CALCUTTA :

PRINTED AT THE BAPTIST MISSION PRESS,

AND PUBLISHED BY THE

ASIATIC SOCIETY, 57 PARK STREET.

1896.



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PROCEEDINGS  
OF THE  
ASIATIC SOCIETY OF BENGAL,  
FOR JANUARY, 1895.

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The Monthly General Meeting of the Asiatic Society of Bengal, was held on Wednesday, the 2nd January, 1895, at 9 P. M.

DR. A. F. R. HOERNLE, Vice-President, in the chair.

The following members were present :—

Surgeon-Major-General A. F. Bradshaw, A. A. Caspersz, Esq., Babu Çarat Candra Dās, C. L. Griesbach, Esq., Babu Çarat Candra Lāhiri, Kumār Rāmeçvar Māliā, J. Mann, Esq., L. de Nicéville, Esq., Paṇḍit Haraprasād Çāstri, C. R. Wilson, Esq., J. G. Woodroffe, Esq.

The minutes of the last meeting were read and confirmed.

Thirty-one presentations were announced, details of which are given in the Library List appended.

The following gentlemen have expressed a wish to withdraw from the Society:—

S. R. Elson, Esq.  
Lieutenant W. A. Harrison.  
Dr. Kenneth Macleod.

Mr. C. L. Griesbach exhibited some antique beads and stones.

*Note on the above by Mr. J. H. Skrine.*

At *Szbour*, 5 miles east of Bhagulpur, in an alluvial soil 12 miles from nearest rock formations, are found immense quantities of beads and stones. The time is June, when the rains burst. The soil is thus covered with them and the roads, too, have their quota. The natives

have no tradition as to their history. Sabour is 2 miles south of the present bed of the Ganges, and  $\frac{1}{4}$  mile from the old bed (one in use within living memory.)

The following papers were read :—

1. *Buddhism in Bengal, after the Muḥammadan Conquest.*—By PAṆḌIT HARAPRASĀD ÇĀSTRĪ, M.A.

The paper will be published in the *Journal*, Part I.

2. *Note on some remarkable remains in Kashmir.*—By MRS. H. G. M. MURRAY-AYNSLEY. Communicated by the PHILOLOGICAL SECRETARY.

Early in November 1894, shortly before quitting Kashmir after this our fourth visit, I was attracted to the remains of certain old buildings about a mile distant from the European quarter of Sirinagar. On closer examination, one of these proved to have formerly been a Muḥammadan Ziārat.\* Its walls, up to the height of 10 feet, consisted of very large carefully hewn stones apparently laid without mortar. The roof is entirely fallen in. Judging from the dimensions of the beams of wood lying about in the interior, the whole of the upper part of this building must have been of that material. Amongst this debris are one or two tombstones *in situ*, and fragments of others are scattered about. Three or four yards distant from, and parallel with the Ziārat, are the remains of another building of the same character. In this case, the existing stone walls are not more than 4 or 5 feet in height. The whole enclosure is however, much larger than the first named. It contains more than one native dwelling place, the occupants of which appeared to belong to a class superior to that of the ordinary cultivator. These people, on being questioned said, that once upon a time a Mosque stood on this latter site.

Directly in front of the Ziārat, and placed in a sloping position against a rough wall which possibly originally formed its outer enclosure, is a singular stone which one may venture to say could never have belonged to either of the above-named buildings. At first sight, this stone appeared to be circular, but on accurate measurement, it proved to be (allowing for a portion which has been broken off) four feet in diameter one way, and four feet four inches the other. The thickness of this slab is about 10 inches, the under or back side is very roughly hewn, but its upper surface has been very carefully smoothed. All round it, at a distance of one inch and a half from the edge, is a

\* A walled enclosure, in which is the tomb of some saint, is thus styled.

distinct trench three inches and a half in width. Within this area, scattered over the surface, are numerous depressions (so called cup-markings), more or less carefully made, and similar to those hollowed stones which if found in Brittany, in the Island of Guernsey, in Cornwall, Scotland or Ireland, would be styled pre-historic cup-markings. Four of these depressions are of considerable size, being at least three inches in diameter and two inches in depth, and remarkably well defined. There are also several smaller cup-marks, some not so deep or so distinct as the others. The natives on the spot, say that this stone is old, old, centuries old; that it has never been used for any purpose by either themselves or their progenitors, so far as their traditions carry them; though they appeared to regard it with a kind of veneration as an object whose use and origin was unknown to them. Indeed its character and general appearance would seem to point to an earlier stage of civilization than any remains we have ever yet seen in Kashmir.

Some interesting and most curious relics of a past age in Kashmir, belonging probably to some of the earlier civilized races inhabiting that country, have recently been discovered in a valley between two spurs of a mountain rising up from the East end of the *Dal* or city lake, and situated four or five miles from Sirinagar.

These remains have not as yet been properly excavated or examined by experts, and it is therefore impossible at present to give any complete description of them. Suffice it to say, that what has already been uncovered consists of a portion of a circular pavement composed of unglazed terra cotta tiles of large size. This pavement has been described as being about 20 feet in diameter, each tile having a raised design of some animal or animals upon it. I was favoured with a sight of the only two tiles which had been brought into Sirinagar, and herewith enclose faithful copies (original size) of the designs upon them, executed by a friend who is a clever draughtswoman. The material is rough, and the execution rude, but the attitude of the two game cocks is remarkably spirited. I would venture to call attention to the resemblance which the flower between these two birds (repeated also on other portions of the design), bears to the flower of the *Campā* or *Campak* tree, so common in Southern India, but unknown in the Panjab and in Kashmir. Cock-fighting is still a favorite amusement with the Kashmiris. I need hardly add that I should be much gratified and interested by being the recipient of any decision which your Society may arrive at respecting these objects.

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## LIBRARY.

The following additions have been made to the Library since the meeting held in December last:—

## TRANSACTIONS, PROCEEDINGS, AND JOURNALS,

*presented by the respective Societies and Editors.*

- Bombay. Anthropological Society of Bombay,—Journal, Vol. III, No. 6.  
 ———. The Indian Antiquary,—Vol. XXIII, Part 292.
- Buenos Aires. La Academia Nacional de Ciencias en Córdoba,—Boletín, Tome XIII, Entregas 3<sub>a</sub> y 4<sub>a</sub>.
- Calcutta. Geological Survey of India,—Records, Vol. XXVII, Part 4.  
 ———. Indian Engineering,—Vol. XVI, Nos. 23–26.  
 ———. Maha-bodhi Society,—Journal, Vol. III, No. 8.  
 ———. The Medical Reporter,—Vol. IV, No. 12; Vol. V, No. 1.  
 ———. Photographic Society of India,—Journal, Vol. VII, No. 12.
- Christiania. Norske Gradmaalingskommission,—Vandstandsobservationer, Heft 5, 1893.
- Copenhagen. K. Nordiske Oldskrift-Selskab,—Aarboger, II Raekke, IX Bind, Heft 2.
- Dublin. Royal Irish Academy,—Transactions, Vol. XXX, Parts 13 and 14.
- Havre. Société de Géographie Commerciale du Havre,—Bulletin, Septembre-Octobre, 1894.
- Leipzig. Der Deutschen Morgenländischen Gesellschaft,—Zeitschrift, Band XLVIII, Heft 3.
- London. The Academy,—Nos. 1177–80.  
 ———. The Athenæum,—Nos. 3500–3.  
 ———. Nature,—Vol. LI, Nos. 1308–11; and Index to Vol. L.  
 ———. Numismatic Circular,—Vol. III, No. 25; and Index to Vol. II.  
 ———. Royal Geographical Society,—Geographical Journal, Vol. IV, No. 6.
- Paris. Société de Géographie,—Compte Rendu de Séance, No. 16, 1894.  
 ———. Société Philomathique de Paris,—Comptes Rendus Sommaire de la Seances, Nos. 2 et 3, 1894.
- Rome. La Società Degli Spettroscopisti Italiani,—Memorie, Tome XXIII, No. 10.
- Shanghai. China Branch of the Royal Asiatic Society,—Journal, Vol. XXVI.

Taiping. Perak Government,— Gazette, Vol. VII, Nos. 27 and 28.

Tokyo. Imperial University of Japan,— Calender, 1893-94.

Tring. Novitates Zoologicae,— Vol. I, No. 5.

### BOOKS AND PAMPHLETS,

*presented by the Authors, Translators, &c.*

BANERJEE, SREENATH. A brief sketch of the life of Pandit Pran Nath Saraswati. 8vo. Calcutta, 1894.

DUTHIE, J. F. Field and Garden Crops of the North-Western Provinces and Oudh, Part III. 4to. Roorkee, 1893.

LAZARUS, JOHN. A Dictionary of Tamil Proverbs. 8vo. Madras, 1894.

LYMAN, BENJAMIN SMITH. Some Coal Measure Sections near Peytona, West Virginia. 8vo. Philadelphia, 1894.

### MISCELLANEOUS PRESENTATIONS.

Annals of the American Academy of Political and Social Science, Philadelphia, Vol. V, No. 3; and Supplement. 8vo. Philadelphia, 1894.

AMERICAN ACADEMY OF POLITICAL AND SOCIAL SCIENCE,  
PHILADELPHIA.

CHIJS, J. A. VAN DER. Dagh-Register gehonden int Easteel Batavia vant passerende daer ter plaestse als over geheel Nederlandts-India, anno, 1665. 4to. Batavia, 1894.

BATAVIA SOCIETY OF ARTS AND SCIENCES.

Guide to the Natural History and Mineral Galleries of the Government Museum, Madras. 8vo. Madras, 1894.

GOVERNMENT MUSEUM, MADRAS.

General Report on Public Instruction in Bengal for 1893-94. Fcp. Calcutta, 1894.

OLDHAM, W. B. Some Historical and Ethnical Aspects of the Burdwan District. 8vo. Calcutta, 1894.

Report on the Rail-borne Traffic of Bengal during the year 1893-94. Fcp. Calcutta, 1894.

Resolution reviewing the reports on the working of the District Boards in Bengal during the year 1893-94. Fcp. Calcutta, 1894.

GOVERNMENT OF BENGAL.

Report of the Botanical Survey of India, Vol. I, Nos. 3 and 4. 8vo. Calcutta, 1894.

GOVERNMENT OF INDIA, REV. AND AGRI. DEPARTMENT.

Gazetteer of the Lahore District, 1893-94. 8vo. Lahore, 1894.

GOVERNMENT OF THE PUNJAB.

MÜLLERS, F. MAX. Sacred Books of the East, Vols. XXXV, XXXVI and XLIX. 8vo. Oxford, 1894.

INDIA OFFICE, LONDON.

The Indian Journal of Education for December, 1894. 8vo. Madras, 1894.

V. KALYANARAM IYER, ESQ.

STEIN, M. A. Catalogue of the Sanskrit Manuscripts in the Raghunatha Temple library of His Highness the Maharaja of Jammu and Kashmir. 4to. Bombay, 1894.

HIS HIGHNESS THE MAHARAJA OF JAMMU AND KASHMIR.

Verslagen der Zittingen van de wis-en natuurkundige afdeeling der Koninklijke Akademie van Wetenschappen van 27 Mei 1893 tot 21st April, 1894. 4to. Amsterdam, 1894.

DER KONINKLIJKE AKADEMIE VAN WETENSCHAPPEN, AMSTERDAM.

Indian Meteorological Memoirs, Vol. V, Parts 4 and 5. 4to. Calcutta, 1894.

Monthly Weather Review for July and August, 1894. 4to. Calcutta, 1894.

Original Meteorological Observations of Calcutta, Allahabad, Lucknow, Lahore, Nagpur, Bombay and Madras for July and August, 1894. 4to. Calcutta, 1894.

METEOROLOGICAL REPORTER TO THE GOVT. OF INDIA.

Proceedings of the Public Meeting of the Hindu Community, held on Wednesday, the 5th September, 1894, at the Town Hall of Calcutta, to thank Swami Vivekananda and the American People. 8vo. Calcutta, 1894.

RAJA PEARY MOHON MUKERJEE.

SCHJÖTZ, O. E. Resultate der im Sommer, 1893, in dem nördlichsten Theile Norwegens ausgeführten Pendelbeobachtungen. 4to. Christiania, 1894.

DER NORWEGISCHE COMMISSION DER EUROPÄISCHEN

GRADMESSUNG, CHRISTIANIA.

Return of Wrecks and Casualties in Indian Waters for the year 1893. Fcp. Calcutta, 1894.

PORT OFFICE, CALCUTTA.

Tide-Tables for the Indian Ports for the year 1895, also January, 1896. 8vo. London, 1894.

SURVEY OF INDIA, TIDAL AND LEVELLING OPERATION, POONA.

### PERIODICALS PURCHASED.

Allahabad. North Indian Notes and Queries, — Vol. IV, No. 6.

Calcutta. Indian Medical Gazette, — Vol. XXIX, No. 12.

Geneva. Archives des Sciences Physiques et Naturelles, — Tome XXXII,  
No. 11.

Leipzig. Annalen der Physik und Chemie, — Band LIII, Heft 5.

———. ———. Beiblätter, Band XVIII, Heft 11.

London. The Chemical News, — Vol. LXX, Nos. 1826–29.

———. Numismatic Circular, — Vol. III, No. 25 ; and Index to Vol. II.

Paris. Revue Scientifique, — 4<sup>e</sup> Série, Tome II, Nos. 21–24.

### BOOKS PURCHASED.

CUNNINGHAM, MAJOR-GENERAL, SIR A. Coins of Mediæval India. 8vo.  
London, 1894.







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PROCEEDINGS  
OF THE  
ASIATIC SOCIETY OF BENGAL,  
FOR FEBRUARY, 1895.

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The Annual Meeting of the Asiatic Society of Bengal was held on Wednesday, the 6th February, 1895, at 9 P.M.

The Hon'ble Sir C. A. ELLIOTT, K. C. S. I.,  
Vice-President, in the chair.

The following members were present :—

Dr. A. W. Alcock, T. D. Beighton, Esq., Bābu Çarat Candra Dās, D. Ernst, Esq., G. A. Grierson, Esq., C. L. Griesbach, Esq., Dr. A. F. R. Hoernle, A. Hogg, Esq., The Rev. Fr. E. Lafont, Bābu Çarat Candra Lāhiri, C. Little, Esq., E. D. Maclagan, Esq., J. Mann, Esq., C. R. Marriott, Esq., Dr. F. P. Maynard, W. H. Miles, Esq., L. de Nicéville, Esq., A. Pedler, Esq., Dr. G. Ranking, Paṇḍit Haraprasād Çāstri, Dr. G. Watt, C. R. Wilson, Esq.

Visitors :—Babu Jñānendranāth Pāl Caudhuri, E. Dubois, Esq., Bābu Dinanāth Gānguli, T. Kawakamin, Esq., The Rev. K. S. Macdonald.

According to the Bye-Laws of the Society, the Chairman ordered the Voting papers to be distributed for the election of Officers and Members of Council for 1895, and appointed Dr. George Watt and Bābu Çarat Candra Dās to be Scrutineers.

The CHAIRMAN then called upon the Secretary to read the Annual Report.

ANNUAL REPORT FOR 1894.

The Council of the Asiatic Society have the honour to submit the following Report on the state and progress of the Society's affairs during the past year :—

### Member List.

During the year under review 14 Ordinary Members were elected, 13 withdrew, 10 died, two being Life Members ; 4 were removed from the list under Rule 40, being more than 3 years absent from India. There was thus a net loss of 13 Ordinary Members during the year. The total number of Members at the close of 1894, being 295, against 308 at the preceding year ; of these 98 were Resident, 125 Non-Resident, 12 Foreign, 22 Life, 36 Absent from India, and 2 Special non-Subscribing Members, as will be seen from the following table, which also shows the fluctuation in the numbers of the Ordinary Members during the past six years :—

Year.	Paying.				Non-paying.				Grand Total.
	Resident.	Non-Resident.	Foreign.	Total.	Life.	Absent.	Special Non-Subscribing.	Total.	
1889 ...	108	135	13	256	22	27	2	51	307
1890 ...	105	140	10	255	21	25	2	48	303
1891 ...	101	134	10	245	21	27	2	50	295
1892 ...	115	127	11	253	22	33	2	57	310
1893 ...	116	123	12	251	22	33	2	57	308
1894 ...	98	125	12	235	22	36	2	60	295

The ten Ordinary Members, the loss of whom by death during the year we have to regret, were Babu Jñānendra Kumār Rāya Caudhuri, Prince Iskandar 'Alī Mirzā, General Robert Maclagan (Life Member), Babu Yādulāla Mallika, Bābu Bhudeva Mukerjee, Mr. W. M. Osmond, The Hon. Ayodhyānātha Paṇḍit (Life Member), Mr. John Parry Scotland, Mahāmahopādhyāya Kavirāja Ćyāmalādās, and Kumār Indra Candra Singh.

There were five deaths amongst the Honorary Members, viz., Mr. B. H. Hodgson, Professor H. Milne-Edwards, Dr. Warner Siemens, Dr. Aloys Sprenger, and Professor William Dwight Whitney. To fill these vacancies and others previously existing, the Society, on the recommendation of the Council, elected as Honorary Members, Sir William Henry Flower, Dr. Edward Frankland, Monsieur Louis Pasteur, Sir George Gabriel Stokes, Mahāmahopādhyāya Candrakanta Tarkāṅkāra, Professor Theodor Noeldeke, and Dr. Reinhold Rost. Thus the number of Honorary Members stands at 22.

The lists of Special Honorary Members, Corresponding Members, and Associate Members, continue unaltered from last year, there having been no casualties. Their numbers stand at 5, 6, and 10, respectively.

During the year two Members, Mr. E. D. Maclagan and Surgeon-Captain W. Vost, compounded for their future subscriptions; but as two Life-Members, General R. Maclagan and the Hon'ble Ayodhyānātha Paṇḍit died, the total number of Life-Members remains the same as it was at the close of 1893.

#### Indian Museum.

No Presentations were made over to the Indian Museum.

The Trustees on behalf of the Society were :—

Dr. A. F. R. Hoernle.  
A. Pedler, Esq.  
Dr. D. D. Cunningham.  
C. Little, Esq.  
Dr. Mahendralāl Sarkār.

#### Finance.

The Accounts of the Society are shown in Statement No. 1, in the Appendix, under the usual heads.

Statement No. 8 contains the Balance Sheet of the Society and of different funds administered through it.

The Budget Estimate for 1894 was taken at the following figures :—Receipts, Rs. 17,576-0-0; Expenditure, Rs. 16,993-0-0.

The actual results were found to be :—Receipts, Rs. 17,442-12-0; Expenditure, Rs. 17,275-14-4.

The Receipts thus show a decrease of Rs. 133-4-0, while the Expenditure shows an increase of Rs. 882-14-4 on the Budget Estimate.

The increase in Receipts is under the heads of "Interest on Investments" and "Rent of Rooms." "Interest on Investments" was estimated at Rs. 5,456; the actuals have been Rs. 6,307-10-6. The increase of Rs. 851-10-6 has arisen from the transfer of the Government Promissory Notes, from the 4 per cent. to the 3½ per cent. loan, the Government having paid in advance the excess interest of ½ per cent. Owing to the payment in this year of two months' rent due last year by the Photographic Society of India, "Rent of Rooms" shows an increase of Rs. 120.

The loss of Members during the past year being somewhat larger than usual, the receipts from "Subscriptions" are below the estimated amount by Rs. 431-14-0. Messrs. Kegan Paul, Trench, Trübner & Co. not having submitted their accounts, there appears a reduction of

Rs. 153-10-6 under the head of "Sale of Publications." The difference between the estimated and actual receipts, under the head of "Government Allowances," is due to the grant from the Government of Madras for Part III of the Society's Journal, dealing with Anthropology, Ethnology, and Folklore, not having been received during the year.

On the Expenditure side, the items of "Binding," "Journal, Part I," "Journal, Part II," and "Proceedings," show an increase. The heavy increase in the "binding" is due to a third set of the Society's "Asiatic Researches," "Journals," and "Proceedings" having been bound for the Society's Library, and to the binding of some old works. The budget grant for "Journal, Part I," has been exceeded by Rs. 408-4-6; this is owing to the payment for the printing of the maps illustrating Major Raverty's article on the "Mihran of Sind and its Tributaries." The expenditure on "Journal, Part II," shows an increase of Rs. 1,141-8-9, caused chiefly by the payment of £68-11 for plates, to Messrs. West, Newman & Co. Owing to the Baptist Mission Press having been paid for the printing of eleven numbers of the "Proceedings" instead of ten, as usual, there is a slight increase of Rs. 253-8-6 under this head.

An Expenditure of only Rs. 807-4-8 appears under the head of "Books," in consequence of the non-receipt of Messrs. Kegan Paul, Trench, Trübner and Co's accounts, the books purchased through the London Agents amounting to £67-13-10.

There were two extraordinary items of expenditure during 1894, under the heads of "Repairs" and "Furniture," not provided for in the Budget. Rs. 1,761-6-0 was spent in cleaning and renovating the oil paintings belonging to the Society and in repairing the cane matting. Four almirahs were removed from the stock-room to the Library, and the necessary repairs cost Rs. 199.

The actual expenditure on the "Journal" and "Proceedings" was as follows:—

		Rs. As. P.	
<i>Journal</i> ...	{ Part I.	...	2,508 4 6
	{ Part II.	...	3,241 8 9
	{ Part III.	...	1,426 5 9
<i>Proceedings...</i>	...	...	1,253 8 6
Total		...	8,429 11 6

This is less than the Budget Estimate by Rs. 270-5-6. Only one number of the *Journal*, Part III, was issued for 1894.

The Budget Estimate of probable ordinary Receipts and Expenditure for 1895 has been fixed as follows:—Receipts, Rs. 16,844; Expenditure, Rs. 16,018.

On the Receipts' side, the estimate, under the head of "Subscriptions," has been reduced by Rs. 400, taking into account the unusual loss of Members during last year. "Interest on Investments" shows a reduction of Rs. 332, owing to the transfer of the Government Promissory Notes from the four per cent. to the  $3\frac{1}{2}$  per cent. loan. The amount of Rs. 500 not having been received during the year from the Government of Madras, the item under the head of "Government Allowances" has not been altered.

On the Expenditure side, the items of "Lighting," "Freight," and "Local Periodicals" have been slightly decreased. "Stationery" has been decreased by Rs. 50, the compilation of the Society's Library Catalogue being far advanced. The item of "Postage" has been reduced by Rs. 50; as the expenditure of last year has been smaller than usual. There is a reduction of Rs. 500 in the budget under the head of *Journal*, Part III, which provides only for printing charges. This sum has been distributed under the heads of "Postage," "Contingencies," and "Printing Circulars" to provide for such expenses in connection with the third part of the *Journal*.

Beyond the Auditor's fee no other extraordinary expenditure is anticipated during 1895.

The details of the Budget Estimate are as follows:—

RECEIPTS.			
		Rs.	As. P.
Subscriptions ...	...	7,000	0 0
Sale of Publications ...	...	400	0 0
Interest on Investments ...	...	5,124	0 0
Rent of Rooms ...	...	720	0 0
Government Allowances ...	...	3,500	0 0
Miscellaneous ...	...	100	0 0
		<hr/>	
Total	...	16,844	0 0
		<hr/>	
EXPENDITURE.			
Salaries ...	...	3,400	0 0
Commission ...	...	400	0 0
Pensions ...	...	48	0 0
Stationery ...	...	100	0 0
Lighting ...	...	40	0 0
Municipal Taxes ...	...	819	0 0
Postage ...	...	600	0 0
		<hr/>	
Carried over	...	5,407	0 0

	Brought forward	...	5,407	0	0
Freight	...	...	10	0	0
Meetings	...	...	80	0	0
Contingencies	...	...	150	0	0
Books	...	...	1,500	0	0
Local Periodicals	...	...	16	0	0
Binding	...	...	500	0	0
<i>Journal</i> , Part I.	...	...	2,100	0	0
,, Part II.	...	...	2,100	0	0
,, Part III.	...	...	3,000	0	0
<i>Proceedings</i>	...	...	1,000	0	0
Printing Circulars, &c.	...	...	150	0	0
			<hr/>		
	Total	...	16,013	0	0
			<hr/>		

#### London Agency.

Messrs. Kegan Paul, Trench, Trübner & Co. not having submitted their accounts with the Society during the year, nothing can be said about the sales made by them of the Society's publications, or of the amount due to or by the Society. No remittance was made to them during the year.

The number of copies of parts of the *Journals*, of the *Proceedings*, and of the *Bibliotheca Indica*, sent to the agents, during 1894 for sale, were 355, 180, and 90, valued @ £53-5-0d., £6-15-0d., and Rs. 92-8-0, respectively.

Eight invoices of books purchased, and of publications of various Societies sent in exchange, were received during the year. The value of the books purchased amounted to £67-13-10.

#### Change of the London Agency.

From the beginning of 1895 the Council has transferred the London Agency of the Society,—from Messrs. Kegan Paul, Trench, Trübner & Co. to Messrs. Luzac & Co.

#### Continental Agency.

The number of copies of parts of the *Journal*, of the *Proceedings*, and of the *Bibliotheca Indica*, sent to Mr. Otto Harrassowitz, the Society's Continental Agent, during 1894 for sale, were 160, 2, and 213, valued @ £40-11-6, £0-1-6, and Rs. 122-12-0, respectively. Other books were sent for sale amounting to Rs. 18.

### Library.

The total number of volumes, or parts of volumes, added to the Library during the year was 2,059, of which 610 were purchased and 1,449 presented, or received in exchange for the Society's publications.

In last year's Report it was stated that a new edition of the Society's Library Catalogue had been taken in hand, and the compilation had been entrusted to Mr. J. H. Elliott, the Assistant Secretary of the Society. On examination, it was found necessary to check the books with the present Catalogue. Two-thirds of the books have been carefully checked, and it is hoped before the close of the year the work will be accomplished.

### Publications.

There were published, during the year, ten numbers of the "Proceedings" (No. 10 of 1893, and Nos. 1 to 9 of 1894), containing 157 pages of letter-press and 1 plate; four numbers of the *Journal*, Part I (No. 4 of 1893, and Nos. 1 to 3 of 1894), containing 218 pages of letter-press and 7 plates; four numbers of the *Journal*, Part II (No. 3 of 1893 and Nos. 1 to 3 of 1894), containing 290 pages of letter-press and 9 plates; two numbers of the *Journal*, Part III (No. 3 of 1893 and No. 1 of 1894), containing 82 pages of letter-press and 6 plates. The Annual Address of the President was printed separately from the *Proceedings*, and contained 85 pages of letter-press. Indexes to the *Journal*, Parts I and II, for 1893, were also published.

### Coin Cabinet.

During the year 70 coins were added to the Cabinet, of which 34 were of silver and 36 of copper. Of these coins 66 were acquired under the ~~Treasure Trove~~ Treasure Trove Act. The remaining 4 were presentations from the Bombay Government under the Treasure Trove Act. The total comprises Moghuls (silver), 25; so-called Pathans (copper), 36; Bengal independent Sultans (silver), 2; Assamese (silver), 6; Jayantipur (silver), 1. They all belong to well-known, types and detailed notices of them will be found in the Society's Proceedings.

### Office of Secretaries.

Dr. G. A. Grierson performed the duties of Philological Secretary and Editor of the *Journal*, Part I, till April, when he was absent on leave, and Dr. A. F. R. Hoernle took charge of the work.

Dr. J. H. Tull Walsh carried on the duties of Natural History Secretary and Editor of the *Journal*, Part II, till April, when he resigned, and Dr. A. W. Alcock was appointed.



Dr. Alcock carried on the duties of the Anthropological Secretary and Editor of the *Journal*, Part III, till April, when he resigned, and Dr. Walsh was appointed. Dr. Walsh continued for one month, when he left India on furlough, and since the appointment has been vacant.

Mr. C. Little held the Treasurership from January to March, when he was absent on leave, and Mr. A. Pedler officiated for him as Treasurer.

Mr. C. R. Wilson carried on the duties of the General Secretary and Editor of the *Proceedings* during the year.

Mr. J. H. Elliott continued Assistant Secretary and Librarian throughout the year.

There were no changes in the posts of Assistant Librarian, Cashier, Paṇḍit, and Copyist, which were held by the permanent incumbents,—Bābu Yogeṣa Candra Chatterji, Bābu Nṛitya Gopāl Vasu, Paṇḍit Harimohan Vidyābhāṣaṇa, and Babu Naṇi Lāl Mānā.

#### Bibliotheca Indica.

Sixteen fasciculi were issued during the year, of which five were in the Arabic-Persian, one in the Tibetan, and ten in the Sanskrit series. They belong to nine different works. Three works came to a close, namely, the English translation of the *Ain-i-Akbari*, the *Maāsir-ul-Umārā*, and the ten Arabic poems.

The Philological Secretary exercises complete control over the publication. No new fasciculus was undertaken without his permission.

The expenditure of the Oriental Publication Fund during the year is Rs. 7,880-14-0. It includes the printing charges for 17 and editing charges for 14 fasciculi, giving the average Rs. 436 for each fasciculus. This leaves a balance of Rs. 8,368-9-9 to the credit of the Fund at the end of the year. Of this about Rs. 2,000 is already hypothecated for publications not yet paid for.

The following is a descriptive catalogue of publications issued during the year 1894:—

#### A. ARABIC-PERSIAN SERIES.

1. *Ain-i-Akbari*, the constitutional history of the Mughal Empire in Akbar's time, by Abūl-Faṣl, one of the great learned men of his court. The first volume of the work was translated by the late Mr. Blochmann, with notes. Since his death the work was in abeyance for a long time. Colonel H. S. Jarrett undertook the translation of the last two volumes at the request of the Council, and completed it before his retirement last year. The work is a complete Gazetteer of the Mughal Empire in Akbar's time and contains not only valuable historical and geographical information, but administrative details of immense value. Three fasciculi were issued during the year, namely, Vol. III., Fasc. III., IV., V., the last of which contains a complete index.

2. *Maāsiru-l-Umārā*, or a history of the Great Nobles of the Mughal Court during the first half of the eighteenth century, by Shāh Nuwāz Khān. He played a conspicuous part in the affairs of the Deccan, and for his generous act of self-sacrifice, in saving the life of Nasir Jang, was obliged to live in concealment and obscurity for seven years, during which time he wrote this great work. Three volumes of the work have been published, but without indices. The index to the first volume appeared during the year under review in two fasciculi, Vol. I. Fasc. X. and XI., under the Editorship of Maulvi Mirza Ashraf Ali.

3. A Commentary by Abū Zakariā Yahyā At-Tibrizī on the ten ancient Arabic poems, was completed during the year under review by C. J. Lyall, Esq., C.S., President of the Society. The poems all belong to a period before Muḥammad, but the Commentary is post-Muḥammadan. The edition is based on MSS. at Cambridge, Leyden, and London.

#### B. SANSKRIT SERIES.

1. *Aitareya Brāhmaṇa* is after the Rig-veda, the oldest Vedic work known. It was published with an English translation, about 50 years ago, by M. Haug. Paṇḍit Satyavrata Sāmaçramī has undertaken to publish the work with Sāyana's Commentary, references and indices. It has advanced by three fasciculi, Vol. I., Fasc. I., II., and III.

2. *Çranta sūtra* of Çāmkhāyana has advanced by one fasciculus only under the Editorship of Professor Dr. Alfred Hillebrandt of Breslau. It contains Varadattasuta Ānartīya's Commentary on one of the later chapters of the work. Vol. III., Fasc. II.

3. *Taittirīya Saṁhitā*, or the Black Yajurveda, has changed hands. Mahāmahopādhyāya Maheçā Candra Nyāyaratna, C.I.E., having resigned the Editorship, the work was made over to Paṇḍit Satyavrata Sāmaçramī, who has published one fasciculus only during the year under review, viz., Fasc. XXXVII.

4. *Tattva-cintā-maṇi*, by Gaṅgeçôpādhyāya, who composed his great work on Logic and Philosophy about 750 years ago, with a view to dispel the darkness produced by heretics, — *Pracaṇḍa-pāṣaṇḍa tamastīr-ṣayā*, — has advanced by one fasciculus only, namely, Vol. IV., Fasc. I. The fourth volume deals with the *Çabdakhaṇḍa*, i.e., the evidential value of words or speech.

5. *Vṛhat Svayambhū Purāṇa* is the only Buddhist Purāṇa known. It deals with the sacredness of various spots in the Svayambhū Kṣetra and other parts of the Valley of Nepal. It is a store-house of legends on Nepal Buddhism. It has advanced by three fasciculi under the Editorship of Paṇḍit Haraprasād Çāstri Fasc. I, II and III.

## C. TIBETAN SERIES.

1. Avadāna Kalpalatā, by Kṣemendra, the great Kāçmirī poet of the tenth century, published with a Tibetan translation to help the study of the latter language through the medium of Sanskrit, has advanced by two fasciculi under the joint Editorship of Bābu Çarat Candra Dās and Paṇḍit Harimohan Vidyābhūṣaṇa, namely, Vol. I., Fasc. IV., and Vol. II., Fasc. III. The two volumes are being published simultaneously.

2. Pag-Sam Thi Siñ, a prose abstract of the above in modern Tibetan, has advanced by one fasciculus only under the distinguished Editorship of Bābu Çarat Candra Dās, C.I.E., viz., Fasc. IV.

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*List of all Societies, Institutions, &c., to which the Publications of the Asiatic Society have been sent during the year, or from which publications have been received.*

\* Societies, &c., which have received the Asiatic Society's publications, and have sent their publications in return.

† Societies, &c., which have received the Asiatic Society's publications, but have sent none in return.

§ Societies, &c., whose publications have been received, but to which nothing has been sent in return.

\* Allahabad :—Editor, *Pioneer*.

† Amsterdam :—Royal Zoological Society.

\* ——— :—Koninklijke Akademie van Wetenschappen.

\* Angers :—Société d' Etudes Scientifiques d' Angers.

\* Baltimore :—Johns Hopkins University.

\* Batavia :—Society of Arts and Sciences.

\* ——— :—Kon Natuurkundige Vereeniging in Nederlandsch-Indië.

\* Berlin :—Gesellschaft Naturforschende Freunde zu Berlin.

\* ——— :—Royal Academy of Sciences.

† Berne :—Société Suisse d' Entomologie.

\* Bombay :—Bombay Anthropological Society.

\* ——— :—Bombay Branch, Royal Asiatic Society.

\* ——— :—Editor, *Indian Antiquary*.

\* ——— :—Editor, *Times of India*.

\* ——— :—Natural History Society.

\* Bordeaux :—L' Académie Nationale des Sciences, Belles-Lettres et Arts.

\* ——— :—Société Linnéenne.

† Boston :—Natural History Society.

§ ——— :—American Oriental Society.

\* Brisbane :—Royal Society of Queensland.

- † Brookville:—Society of Natural History.
- \* Brunswick:—Verein für Naturwissenschaft.
- † Brussels:—L' Académie Royale des Sciences.
- † ———:—Musée Royal d' Histoire Naturelle de Belgique.
- \* ———:—Société Entomologique de Belgique.
- † Budapest:—Hungarian Central Bureau for Ornithological Observations.
- \* ———:—Royal Hungarian Academy of Sciences.
- † Buenos Ayres:—National Museum.
- \* ———:—Academia Nacional de Ciencias de la Republica Argentina.
- \* Caen:—Société de Linnéenne de Normandie.
- † Calcutta:—Agri-Horticultural Society of India.
- \* ———:—Geological Survey of India.
- \* ———:—Editor, *Englishman*.
- \* ———:—Editor, *Indian Daily News*.
- § ———:—Editor, *Indian Engineer*.
- § ———:—Editor, *Indian Engineering*.
- \* ———:—Editor, *Indian Mirror*.
- \* ———:—Editor, *Medical Reporter*.
- \* ———:—Indian Museum.
- § ———:—Mahabodhi Society.
- † ———:—Mahomedan Literary Society.
- § ———:—Microscopical Society.
- § ———:—Photographic Society of India.
- \* ———:—Survey of India.
- \* ———:—Tuttobodhini Shova.
- \* ———:—University Library.
- \* Cambridge:—University Library.
- \* Cassel:—Der Verein für Naturkunde.
- † Cherbourg:—Société Nationale des Sciences Naturelles.
- \* Chicago, Ill.:—Editor, *American Antiquarian and Oriental Journal*.
- \* Christiana:—University Library.
- \* Colombo:—Ceylon Branch, Royal Asiatic Society.
- \* Copenhagen:—La Société Royale des Antiquaires du Nord.
- † Cuttack:—Cuttack Library.
- † Danzig:—Naturforschende Gesellschaft.
- \* Dehra Dun:—Great Trigonometrical Survey.
- \* Dresden:—Entomologischen Vereins "Iris."
- \* ———:—Königlichen Zoologischen und Anthropologisch-Ethnographischen Museums zu Dresden.
- \* Dublin:—Royal Dublin Society.
- \* ———:—Royal Irish Academy.

- \* Edinburgh :—Royal Society.
- § ——— :—Royal Physical Society.
- † ——— :—Scottish Geographical Society.
- \* Florence :—Società Italiana di Anthropologia, Etnologia e Psicologia Comparata.
- \* ——— :—Società Africana d'Italia.
- \* Frankfurt :—Senckenbergische Naturforschende Gesellschaft.
- \* ——— :—Naturwissenschaftlichen Vereins des Regierungsbezirks.
- \* Geneva :—Société de Physique et d' Histoire Naturelle.
- † Genoa :—Museo Civico di Storia Naturale.
- † Giessen :—Oberhessische Gesellschaft für Natur und Heilkunde.
- \* Graz :—Naturwissenschaftlichen Verein für Styria.
- \* Hague :—Köninklijk Instituut voor de Taal-Land-en Volkenkunde van Nederlansch-Indië.
- \* ——— :—Netherlands Entomological Society.
- \* Hamburg :—Naturhistorisches Museum zu Hamburg.
- \* ——— :—Naturwissenschaftlichen Verein.
- † Halle :—Deutsche Morgenlandische Gesellschaft.
- \* ——— :—Kaiserlichen Leopoldinisch-Carlinische Akademie.
- \* Hamilton (Canada) :—Hamilton Association.
- \* Havre :—Société de Géographie Commerciale du Havre.
- \* Helsingfors :—Societas pro Flora et Fauna Fennica.
- † ——— :—Société des Sciences de Finlande.
- § Ithaca (U. S. A.) :—Cornell University.
- † Kiev :—Société des Naturalistes.
- \* Königsberg :—Die Physikalische-Oekonomische Gesellschaft.
- \* Lahore :—Editor, *Civil and Military Gazette*.
- † ——— :—Agricultural Society.
- § Leipzig :—Deutsche Morgenlandische Gesellschaft.
- § ——— :—Der K. Sächsischen Gesellschaft der Wissenschaften.
- † Leyden :—Royal Herbarium.
- \* Liège :—Société Géologique de Belgique.
- † ——— :—Société des Sciences.
- † Liverpool :—Literary and Philosophical Society.
- \* London :—Anthropological Institute.
- \* ——— :—Editor, *Academy*.
- \* ——— :—Editor, *Athenæum*.
- \* ——— :—British Museum.
- \* ——— :—Geological Society.
- \* ——— :—Institution of Civil Engineers.
- \* ——— :—Institution of Electrical Engineers.
- \* ——— :—Institution of Mechanical Engineers.

- \* London :— Editor, *Nature*.
- § ———:— Editor, *Numismatic Circular*.
- \* ———:— *Linnean Society*.
- \* ———:— *Royal Asiatic Society of Great Britain and Ireland*.
- \* ———:— *Royal Astronomical Society*.
- \* ———:— *Royal Geographical Society*.
- \* ———:— *Royal Institution of Great Britain*.
- \* ———:— *Royal Microscopical Society*.
- \* ———:— *Royal Society*.
- \* ———:— *Statistical Society*.
- \* ———:— *Zoological Society*.
- † Lyons :— *La Société d' Agriculture, d' Histoire Naturelle et des Arts Utiles*.
- † ———:— *Muséum d' Histoire Naturelle*.
- \* ———:— *La Société d' Anthropologie*.
- † Madison, Wis :— *Wisconsin Academy of Sciences, Arts and Letters*.
- † Madras :— *Literary Society*.
- \* ———:— *Government Central Museum*.
- § ———:— Editor, *Indian Journal of Education*.
- § Melbourne :— *Royal Society of Victoria*.
- \* Manchester :— *Literary and Philosophical Society*.
- \* Mexico :— *Sociedad Científica "Antonio Alzate"*.
- \* Moscow :— *Société Imperiale des Naturalistes*.
- \* Munich :— *K. Bayerische Akademie der Wissenschaften*.
- \* Nantes :— *Société des Sciences Naturelles de L' ouest de la France*.
- † Naples :— *Società Africana d' Italia*.
- † New Haven :— *Connecticut Academy of Arts and Sciences*.
- † Newport (R. I.) :— *Natural History Society*.
- † New York :— *American Museum of Natural History*.
- \* Ottawa :— *Geological and Natural History Survey of the Dominion of Canada*.
- † Oxford :— *Bodleian Library*.
- † ———:— *Indian Institute*.
- \* Paris :— *Société de Géographie*.
- \* ———:— *Société d' Anthropologie*.
- \* ———:— *Société Asiatique*.
- § ———:— *Société Philomathique*.
- \* ———:— *Musée Guimet*.
- † ———:— *National Library*.
- \* ———:— *Société Zoologique*.
- † ———:— *Société Académique Indo-Chinoise*.
- \* ———:— *Museum d' Histoire Naturelle*.

- \* Pennsylvania :—University of Pennsylvania.
- \* Philadelphia :—Academy of Natural Sciences.
- † ——— :—Editor, *Journal of Comparative Medicine and Surgery*.
- \* Pisa :—Société Toscana di Scienze Naturali.
- § Prague :—K. K. Sternwarte.
- § Rome :—Société degli Spettroscopisti Italiani.
- § Roorkee :—Editor, *Indian Forester*.
- \* St. Petersburg :—Comité Géologique.
- † ——— :—Imperial Library.
- \* ——— :—Russian Geographical Society.
- \* ——— :—Académie Impériale des Sciences.
- † ——— :—Jardin Impériale de Botanique.
- § ——— :—Société Impériale de Mineralogique.
- \* San Francisco :—Californian Academy of Arts and Sciences.
- \* Santiago :—Deutsche Wissenschaftliche Vereines.
- § Schaffhausen :—Swiss Entomological Society.
- \* Shanghai :—China Branch, Royal Asiatic Society.
- † Simla :—United Service Institution of India.
- † Stettin :—Entomological Society.
- \* Stockholm :—Entomologische Tidskrift.
- \* ——— :—Royal Swedish Academy of Sciences.
- \* Sydney :—Royal Society of New South Wales.
- \* ——— :—Linnean Society of New South Wales.
- § Taiping :—Government of Perak.
- \* Toronto :—Canadian Institute.
- \* Tokyo :—Imperial University of Japan.
- \* Trieste :—Société Adriatica di Scienze Naturale.
- † ——— :—Museo Civico di Storia Naturale.
- \* Tring :—Zoological Museum.
- \* Turin :—Reale Accademia delle Scienze.
- † Ulwar :—Ulwar Library.
- \* Vienna :—Anthropologische Gesellschaft.
- \* ——— :—K. K. Akademie der Wissenschaften.
- \* ——— :—K. K. Geologische Reichsanstalt.
- \* ——— :—K. K. Naturhistorische Hofmuseums.
- \* ——— :—K. K. Zoologisch-Botanische Gesellschaft.
- † ——— :—Ornithologische Verein.
- † Washington :—Commissioners of the Department of Agriculture.
- \* ——— :—Smithsonian Institution.
- \* ——— :—United States Geological Survey.
- § ——— :—United States National Museum.
- \* Wellington :—New Zealand Institute.

- \* Wellington :— Polynesian Society.
- \* Yokohama :— Asiatic Society.
- \* ——— :— Deutsche Gesellschaft für Natur und Völkerkunde Ostasiens.
- † Zagreb :— Archæological Society.
- \* Zurich :— Naturforschenden Gesellschaft.

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ABSTRACT OF PROCEEDINGS OF COUNCIL DURING 1894.

*February 1st, Ordinary Meeting.*

On an application from the Librarian, Physical Economical Society of Königsberg, it was ordered that all the available publications of the Society wanting in their set should be supplied.

On the recommendation of the Natural History Secretary, it was agreed that the Society's *Journal*, Part II, should be exchanged for the publications of the Hungarian Central Bureau for Ornithological Observations, Budapest.

The acceptance by Dr. A. W. Alcock of the duties of the Anthropological Secretaryship, during the absence of the Hon. Mr. H. H. Risley, was recorded.

The request of Mr. F. E. Pargiter to continue the translation of the "Mārkaṇḍeya Purāṇa" was agreed to, and his name was placed on the Philological Committee.

On the recommendation of the Philological Committee, Surgeon-Major George Ranking was invited to continue the translation of "Muntakhabu-t-Tawarikh" for the Bibliotheca Indica, in the place of Major E. Noel, proceeding to England.

The grant for printing Major Raverty's article on The "Mihran of Sind and its Tributaries," as recommended by the Finance Committee, was included in the budget for 1894.

The budget of the expenses of the *Bibliotheca Indica*, drawn up by the Philological Committee for the year 1894, was approved.

In reply to an application from Paṇḍit Madhusūdan Smritiratna, asking permission to edit the "Smriti-Candrikā" for the Bibliotheca Indica, he was informed that the work had been approved by the Philological Committee and placed on the list of works sanctioned by the Council, but not taken in hand.

The question of filling up of vacancies in the Honorary Membership of the Society was referred to a Committee composed of Mr. C. J. Lyall, Mr. A. Pedler, Colonel J. Waterhouse, Dr. A. F. R. Hoernle, Dr. Alcock, and Mahāmahopādhyāya Maheṣa Candra Nyāyaratna.



The purchase of several books was sanctioned for the Society's library.

On an application from the menial servants of the Society praying for slight increase of pay, owing to the scarcity of grain, the Secretary was empowered to make enquiries from the Bengal Secretariat and grant compensation on the same scale and for the same period.

The Treasurer was authorized to buy Government 4 per cent. paper up to Rs. 10,000.

*March 1st, Ordinary Meeting.*

The President, International Congress of Orientalists, Geneva, was informed, in reply to his letter, that the Society would endeavour to depute a representative, or representatives, to the meeting.

Surgeon-Major Ranking agreed to undertake the translation of "Muntakhabu-t-Tawarikh" for the Bibliotheca Indica.

In reply to a letter from the Chairman of the Organizing Committee of the Sixth International Geographical Congress at London, permission was readily given to place the name of the President of the Asiatic Society of Bengal on the list of Honorary Vice-Presidents of the Congress in 1895.

The purchase of several books for the Society's library was sanctioned.

A sub-committee composed of Colonel Waterhouse and Colonel H. S. Jarrett was appointed to consider the question of repairing the Society's pictures, with power to invite the advice of Mr. E. V. Westmacott.

With reference to the council order, dated 31st August 1893, sanctioning the appointment of an assistant on Rs. 13, for six months, for the purpose of putting the stock in order, an extension of one month was approved.

The appointment of two bearers on Rs. 7 each, from 10th February 1894, in the stock-room, for the purpose of dusting and re-arranging the books, was approved.

*March 29th, Ordinary Meeting.*

The purchase of certain Persian manuscripts, at prices recommended by Colonel Jarrett, was agreed to.

An exchange of the Society's *Journal*, Part III, for the publications of the Bureau of Ethnology, Smithsonian Institution, Washington, was sanctioned.

On an application from Mr. E. Hartert, it was agreed that the

*Proceedings* of the Society, in addition to the *Journal*, Part II, already sanctioned, should be supplied in exchange for "Novitates Zoologicae."

On an application from the Under-Secretary to the Government of Bengal, Public Works Department, it was agreed, at a cost of £30, to subscribe for one set of Mr. W. Griggs's proposed portfolios containing photo-collotype reproductions of photographs selected from a valuable collection of negatives at the India Office, illustrating the architecture of India.

The purchase of several books for the Society's library was agreed to.

The exchange of certain coins with Dr. Hoernle was approved.

The payment of Rs. 286 to Mr. L. de Nicéville for drawings in colour of Butterflies for plates I-V, of the Society's *Journal*, Part II, of 1894, was agreed to.

The proceedings of the Philological Committee, regarding the revision of the system of transliteration used by the Society, were read and approved.

Read the correspondence on the subject of the cataloguing the coins of the Society by Mr. C. J. Rodgers of Amritsar. The Secretary's proposal that Mr. Rodgers should be offered five annas a coin for writing and editing a catalogue of the Society's coins was approved. It was ordered that the coins should be sent to Mr. Rodgers in groups, as arranged by Dr. Hoernle,—one group to be returned before another was sent.

With reference to the Council order, dated 1st March 1894, it was determined to retain the services of the assistant in charge of the stock-room for another three months.

The purchase of the manuscript of "Irshadu-z-Zeraat," price Rs. 20, from Bahadur Shah of Lahore, for the Society's library was approved.

Dr. Hoernle, Mr. G. A. Grierson, and Mr. C. Little were deputed to represent the Society at the 10th International Congress of Orientalists at Geneva in 1894.

It was agreed that Mr. A. Pedler should officiate as Treasurer during the absence of Mr. Little.

It was agreed that a third set of the Society's *Asiatic Researches*, *Journal*, and *Proceedings* should be bound for the Library.

*April 26th, Ordinary Meeting.*

The Librarian of the Wisconsin Academy of Sciences, Arts, and Letters, in reply to his letter offering Volumes III to IX of their "Transactions," and asking for *Journal*, Part I, in exchange, was

informed that the volumes offered in exchange were already in the library, but that Volumes I and II were wanting. It was, therefore, ordered that Volumes LVI to LX of the *Journal*, Part II, should be sent.

A letter from the Secretary, Royal Society of London, on the feasibility of compiling a catalogue of scientific papers through International co-operations, was ordered to be circulated, with the President's remarks, to Council and to the Natural Science Committee.

With reference to an application from the Honorary Secretary and Treasurer, Madras Sanskrit and Vernacular Text Society, soliciting pecuniary aid, it was ordered that one copy each of the *Vajjayanti of Yādavaprakāṣa* (with Sanskrit-English Vocabulary) and *Çākāṭtyana's Grammar* (Sanskrit), with *Prakriāsaṅgraha* Commentary, should be purchased.

A letter from the Under-Secretary to the Government of Bengal, covering copy of a letter from the Government of India, Home Department, conveying sanction to the continuance, up to the end of the financial year 1894-95, of the present arrangement under which search is being carried on for Sanskrit Manuscripts by the Asiatic Society, was recorded.

Permission was granted to Dr. George Watt to copy some of the drawings of the late Dr. A. Barclay's from the Society's *Journal*.

Several books were ordered to be purchased for the Society's library.

The proposal that Dr. Alcock and Dr. Walsh should exchange Secretaryships was agreed to, and the new arrangement was ordered to be reported to the General Meeting.

At the suggestion of Dr. Alcock, *Journal*, Part III, was ordered to be supplied, in addition to *Journal*, Part II, already sanctioned, in exchange for the "Sitzungs-berichte der Gesellschaft Naturforschender Freunde zu Berlin," and an offer was made to exchange back volumes to complete the Society's set.

Read the minutes of the Council on a letter from the Superintendent, Baptist Mission Press, soliciting permission to be allowed to order the next batch of paper for the *Journal* from the Bally Paper Mills. It was resolved that in the printing of the Society's publications, Bally paper, extra quality, might be used at a reduced charge of three annas a page; but that the volumes of the Society's publications at present begun, must be completed with the same sort of paper.

Council resolved that Dr. Hoernle should act for Mr. Grierson as Philological Secretary, and that the appointment should be reported at the General Meeting.

On an application from the Provost of the University of Pennsylvania, an exchange of publications was sanctioned.

The question of repairing the Society's pictures and re-gilding the frames, as recommended by the Sub-Committee, was referred to the Finance Committee for report. If funds were available, the work of cleaning the pictures was ordered to be given to Mr. Palmer with instructions, that in cleaning he should not retouch any part of the picture without reference to the Sub-Committee.

The thanks of the Society were voted to Mr. Hoey for the presentation of a valuable copper-plate inscribed with Açoka characters. The gift was ordered to be reported at the General Meeting.

*May 31st, Ordinary Meeting.*

The Council accepted the resignation of Dr. Walsh as Anthropological Secretary, and thanked him for his services.

Lord Elgin's acceptance of the office of Patron of the Society was ordered to be reported to the General Meeting.

It was ordered that a reply should be sent to the Royal Society of London, on the feasibility of compiling a catalogue of scientific papers through International co-operation, to the effect that there would be no difficulty in co-ordinating the Society's publications with other periodical publications in English, and that the Society would be prepared to make a moderate contribution to the maintenance of a bureau when the scheme took shape.

On the recommendations of the Physical Science Committee, the offer of Dr. Lawrence Fernandez to present the "Medical Reporter" from 1892 to date, and future issues, to the Society's library was accepted with thanks.

It was agreed, on the recommendation of the Finance Committee, that a sum of money up to a limit of one thousand rupees might, for the present, be spent on repairing the Society's pictures. The question of re-gilding the frames was deferred.

Copies of Wright's Comparative Grammar of the Semitic Languages and of Lacouperie's Western Origin of the Early Chinese Civilization were ordered to be purchased for the Society's library.

*June 28th, Ordinary Meeting.*

The Honorary Central Secretaries, Indian Medical Congress, in reply to their letter asking the use of the Society's building for the accommodation of some of the sections of the Indian Medical Congress which was to be held in Calcutta from the 24th to 29th December 1894, were informed that the Society would be glad to put its rooms at the

disposal of the Congress, so far as they were not required at the time, for the purposes of the Society.

The Superintendent, Baptist Mission Press, was allowed to charge three annas per page extra for the printing of the *Journal*, *Proceedings*, and *Bibliotheca Indica*, so long as English paper was used.

The Secretary to the Government of India, Revenue and Agricultural Department, in reply to his letter on the subject of the Archaeological Survey Department, was informed that the Asiatic Society of Bengal, would prefer not giving an opinion on such points as concern Bombay and Madras. It was ordered that the papers should be circulated to the Council and to Mr. V. A. Smith, Mr. G. A. Grierson, Mr. W. Hoey, Dr. L. A. Waddell, Dr. A. Führer, and Dr. M. A. Stein.

The resignation of Colonel Jarrett, as a Member of the Council and of the Society, was accepted with regret, and ordered to be announced at the General Meeting.

Council resolved that the services of the Anthropological Assistant, Kumad Bihāri Sāmanta, should be dispensed with for the present.

Permission was given to the Christian Literature Society, Madras, to reprint certain Upaniṣads from the *Bibliotheca Indica* on the same conditions as were granted to the Bombay Theosophical Publication Society.

The supply of Volumes VIII, IX and X of the "Notices" to the Benares Agent for the search for Sanskrit manuscripts was agreed to.

At the suggestion of the Philological Secretary it was agreed that a fee varying from eight annas to one rupee should be paid to the Newari Paṇḍit at the Residency, Nepal, for making copies with translations of some dated Newari inscriptions which had been found in Nepal.

#### *July 26th, Ordinary Meeting.*

Messrs. Luzac & Co., in reply to their application for the Agency of the Society, were offered it on the terms previously framed in the case of Messrs. Constable & Co.

The thanks of the Society were voted to Paṇḍit Candra Kāuta Tarkālaṅkāra for the presentation of the manuscripts of "Kusumāñjali Vyākhyā," "Tattvāvali" and "Vaiṣeṣika bhāṣya" to the Society's library.

With reference to an application from the President and Secretary to the Nagri Prachārīṇī Sabhā of Benares, to the Government of India, Home Department, praying that the Society would publish a list of such Hindi books as might be found among the Sanskrit books, the Government of India was informed that the Society would be glad to comply with their request.

The minutes of the Council were read on a memorandum by the Treasurer, on the subject of the compulsory conversion of the 4 per cent. loan of 1842-43 and the optional conversion of the other 4 per cent. loans of the Society's investments, in accordance with notification in the *Gazette of India*, dated 30th June 1894. It was ordered that the sum of Rs. 700 now held in the 4 per cent. loan of 1842-43 be converted, but that no steps should be taken with regard to the loans of 1854-55 and 1865.

*August 30th, Ordinary Meeting.*

A copy of Sir W. W. Hunter's Bengal MS. Records, Volumes I to IV, price 30 shillings, was purchased for the library.

With reference to Mr. H. Beveridge's suggestion on the subject of publishing the translation of "Akbar-Namah," the Philological Committee agreed that a revised and annotated edition of Lieutenant Chalmers' translation of the "Akbar-Namah" should be published. Mr. Beveridge was requested to obtain the formal consent of the Royal Asiatic Society of Great Britain and Ireland to edit the MS. translation of Lieutenant Chalmers which is in their possession, and to transmit their consent to the Society.

Council resolved that the entire investments held in the 4 per cent. loan should be converted into the new  $3\frac{1}{2}$  per cent. loan.

*September 27th, Ordinary Meeting.*

A copy of the portrait of the late Major-General Sir Alexander Cunningham was purchased for the Society.

The offer of Mr. J. G. Delmerick of a copy of the manuscript of "Tarikh-Muzaffari" in exchange for Vols. II and III of Colonel Jarrett's translation of the "Ain-i-Akbari," Major Raverty's "Tabaqat-i-Nasiri" and translation of "Badouni," was approved.

Paṇḍit Harimohan Vidyābhūṣaṇa, the Paṇḍit of the Society, was granted leave for one month owing to ill-health; and as his substitute, Paṇḍit Annadāprasād Sarasvatī was accepted.

*November 1st, Ordinary Meeting.*

On an application from the Academy of Natural Sciences, Philadelphia, it was ordered that, as far as possible, the Society's publications wanting in their set should be supplied.

Several books were ordered to be purchased for the Society's library.

The acceptance of Messrs. Luzac and Co. of the Agency of the Society on the terms offered to them was recorded.

*November 29th, Ordinary Meeting.*

Permission was given to Dr. Friedrich Schwally to borrow the Arabic manuscript "Kitabul Mahasinwal Masawi," from the Society's library, on the guarantee of the University of Strassburg.

On an application from the Secretary, Koninklijk Instituut voor de Taal-Land-En Volkenkunde van Nederlandsch-Indië, it was agreed that *Journal*, Parts I and II, should be sent in exchange for their "Bijdragen." The Society's publications for the last ten years were ordered to be supplied.

It was resolved that Mr. Lyall should be asked to continue to hold the office of President of the Society till February, when the term of his office expires.

In consequence of the request of the Natural History Secretary for a special grant of £68-11-0 to meet the bill from Messrs. West, Newman, & Co. for the five Chromo-Lithograph plates of butterflies, issued in the *Journal*, Part II, No. 3 of 1894, it was resolved that in future no more than the third of the annual budget grant should be spent on plates; and that for the 1894 *Journal*, Part II will consist of the three numbers already published.

The Secretary was directed to forward the report of the Philological Secretary on the subject of the conservation of Sanskrit manuscripts to the Government of India, and to represent the desirability of continuing the grant for a further period of 5 years.

It was ordered that two copies of Dr. Grierson's Modern Vernacular Literature of Hindustan be lent to the Society's agents for the search of Sanskrit manuscripts from the reserve copies in stock.

The purchase of several books for the Society's library was sanctioned.

*December 28th, Ordinary Meeting.*

Permission was given to Dr. Bruno Liebech to borrow the manuscript of the "Candra Vyākaraṇa" from the Society's library on the guarantee of the University of Breslau.

In continuation of the Council order of the 28th June, it was agreed that a reply should be sent to the Government of India, to the effect that the Society was not in a position to assume control of the Archaeological Survey in Bengal, and that it recommended the adoption of the Lieutenant-Governor's proposal to appoint an Archaeological Officer under the Bengal Government.

The Report having been read, the Chairman invited the meeting to put any questions, or to offer any remarks, which any member might think necessary in connection therewith.

No remarks having been offered, the Chairman moved the adoption of the Report. The motion was unanimously carried.

The CHAIRMAN then read the Report of the Trustees of the "Elliott Prize for Scientific Research."

*Report on the "Elliott Prize for Scientific Research."*

The subject selected for the Prize in 1894 was Natural History. The Trustees have received one Essay in that subject; but it has been decided, after consulting experts as provided in the scheme, that the Essay sent in is not of sufficient merit to justify the award of the Prize.

For the Trustees,

A. CROFT,

*Vice-Chancellor of the Calcutta University,  
and Director of Public Instruction, Bengal.*

*Calcutta, the 30th January 1895.*

The CHAIRMAN announced that the Scrutineers reported the result of the Election of Officers and Members of Council to be as follows:—

*President :*

A Pedler, Esq., F.R.S.

*Vice-Presidents :*

Sir A. W. Croft, M.A., K.C.I.E.

The Hon. Sir C. A. Elliott, K.C.S.I., C.I.E.

Colonel J. Waterhouse, B.S.C.

*Secretaries and Treasurer :*

Dr. G. A. Grierson, C.S., C.I.E.

Dr. A. W. Alcock, C.M.Z.S.

C. R. Wilson, Esq., M.A.

Paṇḍit Haraprasād Čāstrī, M.A.

C. Little, Esq., M.A.

*Other Members of Council :*

Dr. A. F. R. Hoernle.

Mahāmahopādhyāya Maheçā Candra Nyāyaratna, C.I.E.

J. Mann, Esq., M.A.

Bābu Pratāpa Candra Ghoṣa, B.A.

Dr. D. D. Cunningham, F.R.S., C.I.E.

Shams-ul-ulama Moulvie Ahmud.

C. L. Griesbach, Esq., C.I.E., F.G.S.

Dr. G. Ranking.



The meeting was then resolved into the Ordinary General Meeting.

A. Pedler, Esq., F.R.S., PRESIDENT, in the Chair.

The CHAIRMAN before taking his seat said: "Before proceeding to the business of the Ordinary General Meeting, I have to express my sense of the great honour which this Meeting has conferred upon me, in electing me to the office of President of this Society. When I was asked by the Council to allow my name to be put forward, I felt considerable diffidence in consenting to the request, for I am much afraid I shall not be able to do full justice to the traditions of the responsible post of President, a post which has been held previously by so many distinguished men. I can only hope that during the tenure of my office the prosperity of the Society will not in any way be diminished. I am sure I cannot make a better use of my position, in the first instance, than by asking the Meeting to express their thanks to the late President, Vice-Presidents, Secretaries, and Council, for the time and care which they have bestowed on the affairs of the Society during the past year. Only one who has served as an officer of the Society can fully appreciate the labour and responsibility which falls upon the Secretaries, charged as they are with editing its publications. From personal experience I can say that it means about two hours daily work—which cannot be overlooked or delegated to others. I, therefore, propose a vote of cordial thanks to the Council and Secretaries of the year 1894."

*(The vote of thanks was carried unanimously.)*

The minutes of the last meeting were read and confirmed.

Thirty-four presentations were announced, details of which are given in the Library List appended.

The following gentlemen are candidates for election at the next Meeting:—

A. F. M. Abdur Rahman, Esq., Barrister-at-Law (for re-Election); proposed by Dr. A. F. R. Hoernle, seconded by C. R. Wilson, Esq.

P. C. Rāya, Esq., D. Sc., Edin; proposed by A. Pedler, Esq., seconded by C. Little, Esq.

Bābu Rājeçvara Mitra, P. W. D., Raipur, C. P.; proposed by P. N. Bose, Esq., seconded by R. C. Dutt, Esq.

J. C. Bose, Esq. B. Sc.; proposed by A. Pedler, Esq., seconded by C. Little, Esq.

The SECRETARY reported the death of the following corresponding member:—

A. Von Krämer, Esq., Alexandria.

The PRESIDENT read the following letter:—

No.  $\frac{206}{6}$ .

FROM

E. D. MACLAGAN, Esq., C. S.,

*Under-Secretary to the Government of India,*

TO

THE HONORARY SECRETARY,

Asiatic Society of Bengal.

Department of Revenue  
and Agriculture.

(Arch. & Epi.)

*Calcutta, the 21st January, 1895.*

SIR,

In acknowledging the receipt of your letter, No. K-7, dated the 5th instant, I am directed to convey the thanks of the Government of India to the Asiatic Society of Bengal for the care with which it has considered the questions referred to it regarding the work of the Archaeological Survey of India, and for the full expression of its opinion contained in your letter, which will materially assist the Government of India in the disposal of the subject.

I have the honour to be,

SIR,

Your most obedient Servant,

E. D. MACLAGAN,

*Under-Secretary.*

The PRESIDENT also read a letter from the Hon. Mahārāja Pratāp Narain Singh, forwarding certain Sanskrit books published by him, as a presentation to the Society's Library.

The PRESIDENT laid on the table the Budget of expenses on the *Bibliotheca Indica* for 1895, drawn up by the Philological Committee and approved by the Council.

**PROCEEDINGS OF A MEETING OF THE PHILOLOGICAL  
COMMITTEE OF THE ASIATIC SOCIETY OF BENGAL.**

*Held on Friday, February 1st, 1895.*

PRESENT :

Mahāmahopādhyāya Maheṣa Candra Nyāyaratna.

G. A. Grierson, Esq., Ph.D., C.I.E., *Hon. Phil. Secy.*

Paṇḍit Haraprasād Čāstrī.

Dr. A. F. Rudolf Hoernle.

Major R. Temple, C.I.E.

C. R. Wilson, Esq.

We recommend that the following Budget for the "Bibliotheca Indica" for the year 1895 be approved:—

## BUDGET ESTIMATE FOR 1895.

RECEIPTS.			DISBURSEMENTS.		
	RS.	AS. P.		RS.	AS. P.
Balance in hand ...	8,300	0 0	Tattva-cintāmaṇi ...	600	0 0
Government grant for 1895	9,000	0 0	Svayambhū-purāṇa ...	1,050	0 0
	17,300	0 0	Tal'si-sat'sai ...	300	0 0
			Bṛhad-dharma-purāṇa ...	600	0 0
			Pag-Sam-Thi-S'in ...	500	0 0
			Mārkandēya-purāṇa ...	600	0 0
			Nyāya-vārttikā ...	900	0 0
			Kalpalatā ...	1,350	0 0
			Caturvarga-cintāmaṇi ...	600	0 0
			Taittirīya-saṁhitā ...	600	0 0
			Ḍrauta-sūtra of Čamkhāyana	700	0 0
			Nyāyaksumāñjali ...	300	0 0
			Ma'āṣiru-l-Umarā ...	400	0 0
			Aitarēya-brāhmaṇa ...	2,400	0 0
			Muntakhabu-t-tawāriḥ	600	0 0
			Sher Phyin ...	1,600	0 0
			Translation of the Akbar-nāma	600	0 0
			Ātharvaṇa-upaniṣads ...	300	0 0
			Smṛti-candrikā ...	600	0 0
			Kāla-vivēka ...	600	0 0
			Uttarādhyaṇa-sūtra or Nātā-		
			dhamma-kathā-sūtra as may		
			be arranged ...	300	0 0
			Āpastamba-Ḍrauta-sūtra ...	350	0 0
			Sāmkhya-pravacana-bhāṣya ..	600	0 0
			Padmāvai ...	300	0 0
			Aṇubhāṣya ...	300	0 0
				17,050	0 0

## Note—

No account has been taken of the sale proceeds of books, as they cover the establishment, postage, and other charges.

The *Smṛti-candrikā* and *Kāla-vivēka* are new issues in the series, and should only be published, if ancient MSS. are available to the satisfaction of the Philological Committee.

The *Caturvarga-cintāmaṇi* should not be continued, unless the editors can satisfy the Philological Committee that suitable MSS. are available.

We recommend that *Ḍribhāṣya* be removed from the list, as a good edition has been published in Benares.

The following books have been stopped for various reasons:—

Lalita-vistara (English Translation).

Suḍruta.

The following list of works sanctioned and approved by the Council, but not taken in hand, has been drawn up in order of urgency:—

1. Hirāṇya-kēḍi-sūtra (Ḍrauta).
2. Baudhāyana-sūtra (Ḍrauta).
3. Vipāka-sūtra.
4. Saddharma-puṇḍarikā.
5. Tawāriḥ-i-Yamini.
6. Tawāriḥ-i-Wassāf.
7. Tāju-l-Ma'āṣir.
8. Naqa'idu-l-farazdaq wa Jarir.

- |                                                      |                       |
|------------------------------------------------------|-----------------------|
| 9. Karana-grantha.                                   | 11. Yājñavalkya-gītā. |
| 10. Bhaṭṭōpala's Commentary<br>on the Bṛhat-saṁhitā. | 12. Caraka.           |

The PRESIDENT announced that Dr. G. A. Grierson had returned from leave and had taken charge of the Philological Secretaryship from Dr. A. F. R. Hoernle.

The Philological Secretary read the following correspondence regarding Mr. Irvine's article on *Guru Gōbind Singh and Bandah*, which appeared in the *Journal*, Vol. LXIII, Part I, pp. 110 and ff.

AMRITSAR,

19th November 1894.

(1) Letter from Mr. Rodgers to Mr. Irvine.

MY DEAR SIR,

I have read the paper you wrote on Gōbind Singh and Bandah with much interest. I have not the authorities you use, so do not know the contents of any of the books.

I noted some slight inaccuracies which I am going to point out to you, simply because I like all works on the Punjab to be accurate.

*Journal*, p. 129. Amritsar is 32 miles almost due east of Lahore, not 40 miles north of the capital.

Page 133. Sadhaura is not on a steep hill. The banks of the *nadi* are just a little elevated. Page 122. The name of the *faqir* whose tomb is there to this day, is *شاه قیس* not *فیض*. I spent a week there when Archæological Surveyor. General Cunningham's description (*Rep. Arch. Survey* xiv., 72) of it is full of errors. You did not use him. The country round is flat but intersected with river beds. I heard nothing then of Lōhgarh.

Page 134. No coins were struck at Lōhgarh. I have made enquiries and no one ever heard of such coins. They were struck at Anandgarh (spelt on the rupees *انند گهره*). This is Anandpūr I believe of the present day.

The couplet you give, as having been on these coins, I have never seen. There is one with *وزر سیم* in it. The couplet is variously given. In my paper I made a shot at it. I examined thousands of Sikh rupees for my paper. Since I wrote it I have come across Pind Dādan Khān rupees with mint name *نمک* 'salt,' on them, for Pind Dādan Khān. I have also got a *دبره* rupee. In copper I have also seen some novelties, notably some coins bearing the name of Dalip Singh.

As I am always searching for novelties in Sikh coins and must see some thousands every year, I do not think it possible that any coins were here struck by Banda.

The earliest Sikh coins in existence are the rupees of Lahore, struck in 1822, *Samvat*, or 1765 A.D. But you may have some authority for your statement which I have not seen. I distrust all native authorities on coins, as they write without seeing a rupee or mohar.

Page 123. I notice also that the position of Banūr is given as some ten to twelve miles north-east of Sirhind. It is E. by S. of Sirhind, about 20 miles.

I have been all over this part of the Punjab, and at Banūr, Sirhind, and Sadhaura (not Sādhaura).

I am,  
Yours sincerely,  
C. J. RODGERS.

(2) Mr. Irvine's reply.

MY DEAR RODGERS,

12th December 1894.

I am very much obliged, indeed, to you for your letter of the 19th November. Such comments founded on local knowledge are quite invaluable. My own endeavour is to secure absolute accuracy, but, as I daresay you know by experience, it is almost impossible to attain it. I have no personal knowledge of the Punjab, and have to depend on others, on books, and on maps, and I need hardly tell you what hard work it is to identify the names of men, or the situation of places. I was introduced to one of the *faqir* family at Lahore, a retired Extra Assistant Commissioner, and he wrote once giving me help in Lahore topography, but he did not continue as he began, for he never answered my second letter, and I have heard that he died not long ago. I wish I had thought of you. I have still a lot of matter into which Lahore and the Punjab enter. If I ever address you a question or two, I hope you will not think it too great a trespass on your time. I will just make a remark or two on the points you raise.

*First*—AS TO THE TOPOGRAPHY. The truth is, I left this for revision, from end to end of my work until I had finished; intending when I printed (alas! when?) to use the Imperial Gazetteer, the Indian Atlas, Cunningham, and the Provincial Gazetteer, as I thought if I took up the subject separately I should be less likely to overlook anything. When I wrote out this extract for the Press, I worked up the geography piece-meal, and did not give it a final revision.

*Amritsar*.—Distances taken by measurement from a small-scale map are likely to be out. That is how I got 40 miles instead of 32

miles. How I got N. instead of E. I do not know, unless it was by trusting to that treacherous thing, memory. There is a little N. in the direction, though, is there not?

*Sadhaurah.*—G. Forster, who passed through it, says: "A village on a high hill of steep ascent (I. 235);" so you see that you may go wrong even in copying from an eye-witness. As all my authorities spell *سادھورو* I think I was right in putting *Sadhaurah*, but I notice Forster has *Sudhowra*, which represents I suppose a short *a*. I will put, in a note, the modern pronunciation on your authority. I find I first had *Shāh Qamin* *قمین*, but finding *Faiẓ فیض* in the printed text of the *Ma'āğirul-umarā* (I. 830) I assumed that the Native (Calcutta) Editor, being himself a Mahomedan, knew the correct name of the Saint, so I rejected the previous reading taken from the *Mirāt-i-Wāridāt*. I will get out Cunningham, and note what he says about *Sadhaurah*.

*Banūr.*—I will correct this.

*Second*—COINS. That you have never seen a coin of *Bandah's* is of course a presumption,—a strong presumption one may even say—that no such coin ever existed. But to use the legal distinction, there is a difference between evidence and proof. Even if no such coin now exists anywhere on the face of this globe, that is not *proof* that no such coin ever did exist. And in this instance, I see no sufficient reason for rejecting the statement which I have found in my authority. My authorities for this Sikh episode in 1710 are, (1) *Kāmwar Khān*, (2) *Wārid*, (3) *Mirzā Muḥammad*, (4) *Muḥammad Iḥsān Ijād*. I do not know when the first was born or when he died (his death must have been after 1137 H.), but he was alive in 1710 and present at *Sadhaurah* and *Lōhgarh*, being then *Mirsāmān*, or Chamberlain, to *Rafī'ū-sh-Shāh*, the third son of *Bahādur Shāh*. *Wārid* was one *Muḥammad Shafi'*, born at *Nadinah*, or *Naginah* (now in the *Bijnōr* District) in 1087 H. He professes to recollect what happened from 1100, and he went on writing up to 1152 H. When he died I do not know. He lived at *Delhi* from about 1124 H. under the protection of *Bairam Khān*, a noble of good descent. *Mirzā Muḥammad* was born in 1098 H., was alive in 1152 H., and probably did not die till after 1163 H. He also was in *Bahādur Shāh's* camp at *Sadhaurah* in 1122.—But the statement as to the coin rests on the fourth authority, that of the *Farrukh Shāh Nāmāh* of *Muḥammad Iḥsān Ijād*. The following are the reasons why I accept him:—

1. He was a contemporary.

2. He wrote very near the time—he mentions corrections made by *Farrukhsiyar* in the events of 1129 H. *Farrukhsiyar* was killed in 1131 H., so the corrections took place before that year; and as the events of 1129 H. had been recorded, it is to be presumed that the

earlier passage, where the Sikh coin is spoken of, was in existence then, and had been already written. Ijād himself died in 1133—so says Ghulām 'Alī Arād (*Khīrānah-i-'Amīrah*, litho. text, p. 28). His work was therefore in existence at the most within 11, probably within 6 or 7 years after 1122 H., the year when Bandah first rose.

3. Ijād was a native of Samānah, Sirkār Sirhind, and therefore likely to be specially interested on the Sikh rising, and to have friends to supply him with information.

4. He was the official historiographer, and as such, supplied with all the official reports (*Wāqi'ahs*) and news letters (*Sawānihs*).

5. The statement as to the coin is not in itself improbable, and I see no object to be gained in inventing such a statement.

You will note that the word Lōhgarh is not said to have been on the coin. Perhaps, if you looked again through your coins, you might find one with "*Zarb ba Amanu-d-dahr, Maswarat-shahr.*"

I have never seen *Namak* used as the name of a place, though apparently *Namak sār* was—it was the name of the salt mines.

I have not knowingly shirked any difficulty, but have rather made it my object to bring out details and localize as much as possible. As to Sadhaurah, it was quite easy to evade being wrong by saying, "the tomb of a Saint having some local repute;" but I prefer to be precise, although I thereby run the risk of an inaccuracy. Again thanking you,

I am,

Yours very truly,

WM. IRVINE.

Extract from Letter from Mr. Rodgers to the Philological Secretary.

AMRITSAR,

20th January 1895.

MY DEAR SIR,

Sikhism and the coinage of the Sikhs have been pet studies of mine. On reading Mr. Irvine's paper I went into the city to enquire about these Lōhgarh rupees that he mentions. Not one of the money-changers here had ever heard of them. I have never seen one. I travelled over the whole of the eastern part of the Amballa district, and I searched for coins in every bazaar. I see thousands of Sikh rupees every year, but as yet no Lōhgarh rupee has been seen by me.

The fact, however, that I have not seen one, is no argument for their non-existence. Just lately I have come across—

(1.) A new type of rupee of Quṭbu-d-Din Mubārak Shāh, struck at Dāru-l-Islām, 717 H.

(2.) A rupee of Rafi'û-d-Darajât, with the word *دادگر* instead of *بهرور*.

(3.) A gold mōhar of Zainu-l-'Ābidin, of Kashmir, dated 851. This is in lovely preservation, and is the only one known.

(4.) A dām of Akbar's, struck at Kālānaur, the place where he was crowned.

(5.) A half-dām of Ibrāhim Sūr,—the only one known.

I never expected to find any one of these coins. So it may happen that some day I may come across a rupee of Lōhgarh.

You are at liberty to print my letter to Mr. Irvine, and to use as much of this as you like.

I am,

Yours sincerely,

CHAS. J. RODGERS.

The GENERAL SECRETARY read a letter from Mohanto Omrao Giri Gossain asking for the return of the two Tibetan MSS. entitled "Lam Rim Chhen-po" and "Rdorje Hēhbaû Chhenpohi Lam Gyi Rim-pa," the presentation of which was announced in the Society's Proceedings for January 1892, and announced that the Council had accordingly ordered the MSS. to be returned.

The HON. SIR C. A. ELLIOTT, VICE-PRESIDENT, exhibited a copy of the Tibetan block-print volume entitled "DoKalzung."

BĀBU ÇARAT CANDRA DĀS read the following note on the above:—

In examining the Tibetan manuscripts and xylographs contained in the Asiatic Society's Library, I have found a very old manuscript volume of "Dokalzung." Its leaves are almost all worm-eaten with the exception of the title-page, which is in a fair state of preservation. The title-page begins with two ornamental letters, called "yig-go," or the auspicious head letters, followed by two perpendicular strokes meaning full points. Then in Tibetan character is written the following:— "Rgyā-gar śkaḍ-du Āryā Bhadra Kalpikānāma Mahāyāna Sūtra." In the language of India, the sacred Mahāyāna aphorism, called the "Glorious Age." The text of this manuscript volume is full of mistakes. The block-print volume belonging to the Hon'ble Sir Charles Elliott is a correct edition. It is probably one of the earliest impressions taken from the stereotyped wooden boards that were prepared in 1726 A.D., under the orders of King Miwaug. Since then no other edition of this work has appeared in Tibet. When I visited the great Printing Establishment of Narthang, near Tashilhumpo, in 1879, I found that the engraving on the wooden blocks of the *Kahgyur* had almost become worn out. Recent impressions from them must, therefore,



be very indistinct. "Dokalzung" is considered holiest among the 108 volumes of the *Kahgyur* collection, on account of its containing the names of 1,005 Buddhas of the present *Kalpa*, a forecast of future Buddhism and its power for leading humanity to the state of *Bodhi*, or Enlightenment. There is a small picture at each end of the title-page. [See Plate No. I.] One of them is Buddha Çākya Muni with a disc of Saint's glory of blue light round his head, and the other is Maitreya, the coming Buddha. On the back of these two figures of Buddhas there are two rainbows shewing their celestial position. An equal number of disciples and followers attend them both. In the picture of Çākya Muni his two disciples, Çāriputra and Maud Galyāyana, are offering him food from their alms-bowls. Ānanda, his personal attendant, is waiting for orders, and Subhuti is standing in a devotional mood to note down whatever may drop from his lips in the way of instruction. An Indian king with his wife and child sits on the floor at the foot of Buddha's seat, in anxious expectation of hearing his sermons. The child is looking to the father for wisdom who is dressed in blue typifying worldliness. The Tibetan artist having no idea of the dress of an Indian *Rāni* has made the queen look like the wife of a *Dōkpa* chieftain of Northern Tibet. In the picture of Maitreya, his disciples are offering him burnt incense, and a basket full of gems, gold and silver. A Tibetan highlander, sitting on his knees, with his wife and child, is offering him a large blue gem, called *Indra Nila*. The child is looking to his mother in love for love. The father is dressed in yellow shewing more of religion. The coming Buddha Maitreya—the personification of love—will bring the *Mahāyāna* Buddhism to perfection. He can, therefore, accept gold and silver. Buddha Çākya Muni was an ascetic, and called *Mahā Çramana* of the highest order, he having absolutely renounced the world, and preached the *Çrāvaka* doctrine of perfect poverty, and not touch gold, silver, &c. In some pictures and wood engravings of Tibet, Maitreya, the coming Buddha, is seated on a chair—a posture which is evidently foreign to India. As the *Mahāyāna* School of Buddhism obtained its highest development in the Bactrian Empire of the Greeks, which included in it Kashmir, Cabul, Kandahar, Herat, and the valley of the Oxus, &c., it is probable that from there the Light of the East was transmitted Westward, or that Christianity was foreshadowed in Sanskrit Buddhist works. The similarity of Christianity to *Mahāyāna* Buddhism is striking and Maitreya, the coming Messiah of the Buddhists, who is now the Regent of the Lord in Heaven, called *Tuṣhita*, will come to this Earth to make all mankind blessed and glorious.

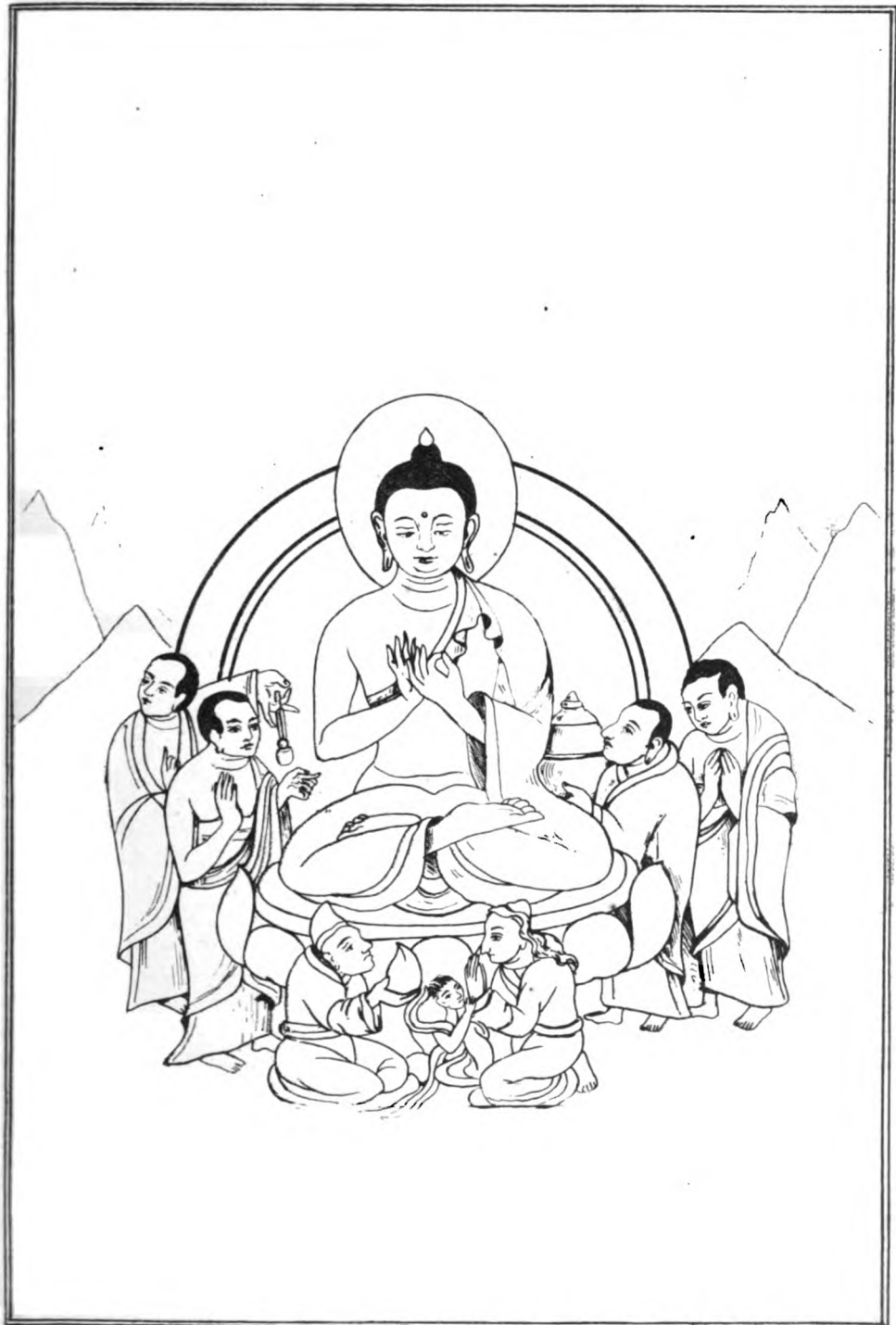
The two pictures represent the two stages in the spiritual progress of Humanity. The first picture shows a condition of progressive self-



ĀJĪKA MUNI BUDDHA.

A Chowdhary lith.





A Chowdhary lith.

**MAITREYA, the Coming Buddha.**



control; the process of self-purification is still at so early a stage that the external conditions of the individual have to be carefully adjusted to his weak condition. He is an ascetic, denies himself abundance of food, he inhabits the woods, and carefully and scrupulously lives a life away from the haunts of men; thus he flies from temptations because temptations may overcome him. So in primitive Humanity the conditions of life are simple. The second picture typifies a higher state of self-control and inner development. The previous discipline has borne fruit, and the ascetic no longer requires to live in the woods or monasteries. At the time of Buddha, or of Christ, a new era was inaugurated when the children of God "*live in the world though not of it.*" Surrounded by temptations of every kind the present and future ascetic maintains his firm hold upon the inner life, unmoved and without attachment. Thus the two pictures show forth the law of evolution as it affects and powerfully modifies the growth of character and development of religion itself, or of the Human capacity to receive spiritual revelations.

The following papers were read :—

1. *Description of a new Lathraea from the Eastern Himalaya*,—By SURGEON-CAPTAIN H. A. CUMMINS, *Army Medical Staff*. Communicated by the NATURAL HISTORY SECRETARY (*Postponed from last Meeting.*)

2. *Notes on the bleaching action of light on colouring matters*,—By ALEXANDER PEDLER, ESQ., F.R.S., &c.

The papers will be published in the *Journal*, Part II.

3. *On changes in the course of the Kusi River, and the probable dangers arising from them*,—By F. A. SHILLINGFORD, ESQ.

The paper will be published in the *Journal*, Part I.

Sir Charles Elliott said :—"The paper, as far as it has been explained to us by Dr. Grierson, is open to criticism on many points. The past history of the Kusi river is uncertain. It is admitted that it originally flowed in an easterly course, and has gradually reached its present position where it flows almost direct south from the gorge through which it debouches from the Himalayas. But why should not the swing of the pendulum continue till it is deflected as much to the west as it ever was to the east? There seems to be no evidence adduced to show that, the river has reached its westernmost position, or to show that if it has, it will return violently from a direct southern to an extreme eastern course, instead of doing so gradually. Neither has anything been said about the well-known theory of the westering of rivers in the Northern Hemisphere which, so far as it is a true theory, would lead us to expect the river to trend in a westerly, not an

easterly direction. However, the course of the Kusi river has been receiving the attention of Government and of the Public Works Department, and I wish that the Secretary, Mr. Odling, had been here this evening to give the meeting the benefit of his knowledge and experience. A special engineer was deputed during the past rainy season to study the river. His investigation is at present incomplete. The river Kusi commences to spill at Bedrà in Nèpaul. No material change is reported to have occurred in its course since the year 1889, when the main stream came over from the western side of the river, a little north of the place mentioned. The stream, at present, is on the eastern side of the bed, and there are no indications of any immediate change. Some caution is necessary in expressing an opinion as to the future, as it is commonly said that the only certain theory about the river Kusi is that it will behave in a way totally different from what has been predicted. There is a heavy spill on the eastern bank of the river which does considerable damage, large areas of land, mostly however in Nepaulese territory, having been thrown out of cultivation during the last five years. It seems that it is mainly the land owners in the district who are apprehensive; the railway engineers entertain no fears on the subject. Still if any measures could be suggested which would commend themselves to experts as undoubtedly tending to secure the district of Purneah against the possible vagaries of the river at a reasonable expense, the Government would be glad to do what it could. It is hardly necessary to say that, as in all similar cases, the objects of the promoters of embankment schemes are, in themselves, so good, that it is impossible not to sympathize with them. The advantages resulting from an embankment are usually immediate and obvious. But there is scarcely a case, in Bengal at least, where it has not happened that in the course of years the difficulties and not unfrequently dangers caused by embankments have become so great that their removal has become a question of discussion. In the case of the Damoodah and Goomti rivers this step became a pressing necessity and has been carried out. At the same time it must be remembered that changes in the course of a river arise from the most trivial causes, such as the occurrence of a snag in the stream, or its meeting a slightly harder bed of clay or *kunkar*."

4. *Çrī Dharma Maṅgala* :—*a distant echo of the Lalita Vistara*,—By  
PAṆḌIT HARAPRASĀD ÇĀSTRĪ, M.A.

The paper will be published in the *Journal*, Part I.

## LIBRARY.

The following additions have been made to the Library since the Meeting held in January last:—

## TRANSACTIONS, PROCEEDINGS, AND JOURNALS,

*presented by the respective Societies and Editors.*

- Batavia.** Bataviaasch Genootschap van Kunsten en Wetenschappen,—  
Tijdschrift voor Indische Taal,-Land-en Volkenkunde, Deel  
XXXVIII, Af. 3.
- . Verhandelingen. Deel XLVII.
- Birmingham.** Birmingham Natural History and Philosophical So-  
ciety,—Proceedings; Vol. IX, Part 1.
- Bombay.** Bombay Natural History Society,—Journal, Vol. IX, No. 2.
- . The Indian Antiquary,—December 1894 and January 1895.
- Budapest.** La Société Hongroise de Géographie,—Bulletin, Tome  
XXII, Nos. 1-5.
- Calcutta.** Indian Engineering,—Vol, XVII, Nos. 1-5.
- . Maha-bodhi Society,—Journal, Vol. III, No. 9.
- . The Medical Reporter,—Vol, V, No. 2.
- . Photographic Society of India,—Journal, Vol. VIII, Nos. 1  
and 2.
- Chicago, Ill.** The American Antiquarian and Oriental Journal,—[Vol.  
XVI, No. 6.
- Dublin.** Royal Irish Academy,—Proceedings, Vol. III (3rd Series),  
No. 3.
- Florence.** Società Africana D'Italia,—Bullettino, Tome II, Nos. 3  
et 4.
- The Hague.** Koninklijk Instituut voor de Taal,—Land-en Volken-  
kunde van Nederlandsch-Indië,—Bijdragen tot de Taal,—Land-en  
Volkenkunde van Nederlandsch-Indië, Band I (6<sup>e</sup> Volgr.), Nr. 1.
- Leipzig.** Der Königlich Sächsischen Gesellschaft der Wissenschaften  
zu Leipzig,—Berichte über die Verhandlungen, Math.-Phys.  
classe, II, 1894.
- London.** The Academy,—Nos. 1181-85.
- . The Athenæum,—Nos. 3504-3508.
- . Nature,—Vols. L, Nos. 1300; LI, 1312-16.
- . Royal Asiatic Society of Great Britain and Ireland,—Journal,  
January 1895.
- . Royal Astronomical Society,—Monthly Notices, Vol. LV,  
Nos. 1 and 2.



- London. Royal Geographical Society,—Geographical Journal, Vol. V No. 1.  
 ———. Royal Microscopical Society,—Journal, Part 5, 1894.  
 ———. Royal Society,—Proceedings, Vol. LVI, Nos. 337 and 339.
- Manchester. Manchester Literary and Philosophical Society,—Memoirs and Proceedings, Vols. VIII (4th series), Nos. 4; IX, 1.
- Moscow. La Société Impériale des Naturalistes de Moscou,—Bulletin, No. 2, 1894.
- Mussoorie. The Indian Forester,—Vols XX, Nos. 12; XXI, 1.
- Paris. Journal Asiatique,—Tome IV (1X<sup>e</sup> série), No. 1.  
 ———. Société de Géographie,—Bulletin, No. 3, 1894.  
 ———. ———. Comptes Rendus des Séances, Nos. 17–19, 1894.  
 ———. Société Philomatheque de Paris,—Comptes Rendus Sommaire des Séances, Nos. 4 et 5, 1894.
- Philadelphia. American Academy of Political and Social Science,—Annals, Vol. V, No. 4.
- St. Petersburg. L'Académie Impériale des Sciences de St. Pétersbourg,—Bulletin, Tome I (V<sup>e</sup> série), Nos. 1 et 4.  
 ———. Comité Géologique,—Bulletins, Tome XII, Nos. 8–9; XIII, 1–3.  
 ———. ———. Mémoires, Tome VIII, Nos. 2–3; IX, 3.  
 ———. Imperial Russian Geographical Society,—Proceedings, Vol. XXX, No. 4.
- Stockholm. Kongl. Svenska Vetenskaps,—Akademiens,—Accessions—Katalog, VIII, 1893.  
 ———. ———. Bihang, Band XIX, Afdelning, 1–4.  
 ———. ———. Lefnadsteckningar, Band III, Häfte 2,  
 ———. Société Entomologique à Stockholm,—Journal Entomologique, Tome XV, Nos. 1–4.
- Sydney. Linnean Society of New South Wales,—Proceedings, Vol. IX (2<sup>nd</sup> Series), Part 2.
- Taiping. Perak Government,—Gazette, Vols. VII, Nos. 29–31; VIII, 1–2.
- Tōkyō. Imperial University,—Journal of the College of Science, Vol. VII, Parts 2 and 3.
- Washington. United States Geological Survey,—Bulletin. Nos 97–117.

### BOOKS AND PAMPHLETS,

*presented by the Authors, Translators, &c.*

- BLANFORD, W. T. A note on Birds from Central India in Barnes's Handbook. 8vo. Bombay, 1894.

- GRIERSON, DR. G. A. *The Bhasha-Bhushana of Jas'want Singh.* 4to. Bombay, 1894.
- HÄCKEL, ERNST. *Monism as connecting Religion and Science*, translated from the German, by J. Gilchrist. 8vo. London, 1894.
- RAY, PRATĀPA CHANDRA. *The Mahabharata*, translated into English prose, Part 93. 8vo. Calcutta, 1894.

### MISCELLANEOUS PRESENTATIONS.

- Ara*: a Journal of Literature and of Armenian Politics and History, Vol. IV, No. 1. 8vo. Dacca, 1885.  
J. D. MELIK BEGLAR, Esq.
- Returns of the Rail-borne Traffic of the Central Provinces during the quarter ending 30th September 1894. Fcp. Nagpur, 1894.  
CHIEF COMMISSIONER, CENTRAL PROVINCES.
- DENIFLE, HENRICUS; et CHATELAIN, ÆMILIO. *Chartularium Universitatis Parisiensis*, Tomus III. 4to. Paris, 1894  
FRENCH GOVERNMENT.
- Report on the Administration of the Government of Bengal, 1193-94. Fcp. Calcutta, 1894.  
RISLEY, H. H. *The Gazetteer of Sikhim.* 4to. Calcutta, 1894.  
GOVERNMENT OF BENGAL.
- Progress Report of the Archæological Survey of Western India for the months, May 1893 to April 1894. Fcp. Bombay, 1894.  
GOVERNMENT OF BOMBAY.
- Indian Antiquary from November to December 1894, and January 1895. Bombay, 1894-95.
- North Indian Notes and Queries for September and October 1894. 4to. Allahabad, 1894.  
GOVERNMENT OF INDIA, HOME DEPARTMENT.
- Epigraphia Indica of the Archæological Survey of India, Vol. II, Part 16. Fcp. Calcutta, 1894.  
GOVERNMENT OF INDIA, REV. AND AGR. DEPT.
- Manual of the Administration of the Madras Presidency, Vol. III. Glossary. Fcp. Madras, 1893.  
GOVERNMENT OF MADRAS.
- A Guide to the Zoological collections exhibited in the Reptile and Amphibia Gallery of the Indian Museum. 8vo. Calcutta, 1894.  
INDIAN MUSEUM.
- ELIOT, J. *Instructions to Observers of the Indian Meteorological Department.* 8vo. Calcutta, 1894.
- Indian Meteorological Memoirs, Vol. V, Part 6. Fcp. Calcutta, 1894.  
METEOROLOGICAL REPORTER TO THE GOVERNMENT OF INDIA.

Bulletin of the Microscopical Society of Calcutta for November 1894.  
8vo. Calcutta, 1894.

Seventh Report of the Microscopical Society of Calcutta for the year  
1894. 8vo. Calcutta, 1895.

MICROSCOPICAL SOCIETY OF CALCUTTA.

Anales del Museo Nacional de Montevideo, II. 4to. Montevideo, 1894.

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Annual Report of the Sanitary Commissioner with the Government of  
India, 1893. Fcp. Calcutta, 1894.

SANITARY COMMISSIONER WITH THE GOVERNMENT OF INDIA.

DAY, DAVID T. Mineral Resources of the United States for 1892 and  
1893. 8vo. Washington, 1893-94.

Annual Report of the United States Geological Survey, 1890-91, Parts  
I-II; 1891-92, Parts I-III. 4to. Washington, 1891-93.

Monographs of the United States Geological Survey, XIX, XXI and  
XXII. 4to. Washington, 1892-93.

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Allahabad. North Indian Notes and Queries,—Vol. IV, No. 7.

Berlin. Deutsche Litteraturzeitung,—Band XV, Nrn. 40-48.

———. Zeitschrift für Ethnographié,—Heft V, 1894.

Calcutta. Botanisches Centralblatt,—Band LIX, Nrn. 13; LX, 1-10.

———. The Calcutta Review,—January 1895.

———. Indian Medical Gazette,—Vol. XXX, No. 1.

Geneva. Archives des Sciences Physiques et Naturelles,—Tome XXXII,  
Nos. 10 and 12.

Göttingen. Der Königl. Gesellschaft der Wissenschaften,—Götting-  
ische gelehrte Anzeigen, Nrn. 10 und 11, 1894.

———. Nachrichten, Nr. 3, 1894.

Leipzig. Annalen der Physik und Chemie,—Band LIV, Heft 1.

London. The Annals and Magazine of Natural History,—Vol. XIV  
(6<sup>th</sup> series), Nos. 83 and 84.

———. The Chemical News,—Vol. LXX, Nos. 1830 and 1831.

———. The Entomologist,—Vol. XXVII, Nos. 378 and 379.

———. The Entomologist's Monthly Magazine,—Vol. V (2<sup>nd</sup> series),  
Nos. 59 and 60.

———. The Ibis,—Vol. VI (6<sup>th</sup> series), No. 24.

———. The Journal of Botany,—Vol. XXXII, Nos. 383 and 384.

———. The London, Edinburgh and Dublin Philosophical Magazine  
and Journal of Science,—Vol. XXXVIII (5<sup>th</sup> series), Nos. 234 and  
235.

- London. *The Messenger of Mathematics*,—Vol. XXIV (new series), No. 4.
- . *Numismatic Circular*,—Vol. III, No. 26.
- . *Quarterly Journal of Microscopical Science*,—Vol. XXXVII (New Series), No. 145.
- New Haven. *The American Journal of Science*,—Vol. XLVIII (3<sup>rd</sup> series), Nos. 286 and 287.
- Paris. *L'Académie des Sciences*,—*Comptes Rendus des Séances*, Tome OXIX, Nos. 14–22.
- . *Annales de Chimie et de Physique*,—Novembre et Décembre, 1894.
- . *Revue Critique d'Histoire et de Littérature*,—Tome XXXVIII, Nos. 41–48.
- . *Revue Scientifique*,—Tome II (4<sup>e</sup> Série), Nos. 25 et 26; III, 1–3.

### BOOKS PURCHASED.

- DANVERS, FREDERICK CHARLES. *The Portuguese in India, being a history of the rise and decline of their Eastern Empire*, Vols. I–II. 8vo. London, 1894.
- GRIFFITH, F. Ll. *Archæological Report, 1893–94; comprising the work of the Egypt Exploration Fund and the progress of Egyptology during the year 1893–94*. 8vo. London, 1894.
- KIBBY, W. F. J. *Hübner Exotische Schmetterlinge*. Plates 54, 61–70. 4to. Brussels, 1894.
- Memorials of Old Haileybury College*. 8vo. Westminster, 1894.
- RĀY, PRATĀPA CHANDRA. *The Mahabharata, translated into English prose, Part 93*. 8vo. Calcutta, 1894.





**PROCEEDINGS**  
OF THE  
**ASIATIC SOCIETY OF BENGAL,**  
FOR MARCH, 1895.

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The Monthly General Meeting of the Asiatic Society of Bengal was held on Wednesday, the 6th March, 1895, at 9-15 P. M.

ALEX. PEDLER, Esq., F.R.S., President, in the chair.

The following members were present :—

F. Finn, Esq., Dr. G. A. Grierson, A. Hogg, Esq., T. H. Holland, Esq., The Rev. H. B. Hyde, J. Mann, Esq., Dr. F. P. Maynard, Dr. D. M. Moir, Paṇḍit Haraprasād Čāstri, C. R. Wilson, Esq.

The minutes of the last meeting were read and confirmed.

Twenty-six presentations were announced, details of which are given in the Library List appended.

The following gentlemen duly proposed and seconded at the last meeting of the Society, were balloted for and elected Ordinary Members :—

A. F. M. Abdur Rahman, Esq.  
P. C. Rāya, Esq.  
Bābu Rājeçvara Mitra.  
J. C. Bose, Esq.

The following gentlemen are candidates for election at the next meeting :—

The Hon. Mr. J. A. Bourdillon (for re-election), proposed by A. Pedler Esq., seconded by C. R. Wilson, Esq.

J. H. Gilliland, Esq., proposed by A. Pedler, Esq., seconded by C. Little, Esq.

The Rev. J. L. Peach, M. A., proposed by A. Pedler, Esq., seconded by T. D. Beighton, Esq.

The SECRETARY read the names of the following gentlemen who had been appointed to serve on the various Committees for the present year:—

FINANCE AND VISITING COMMITTEE.

H. K. W. Arnold, Esq.	Dr. A. F. R. Hoernle.
Bābu Pratāpa Candra Ghoṣa.	Dr. J. Scully.
C. L. Griesbach, Esq.	Colonel J. Waterhouse.

LIBRARY COMMITTEE.

H. K. W. Arnold, Esq.	Dr. Ācutoṣa Mukherjee.
Bābu Gaurdās Basāk.	L. de Nicéville, Esq.
Dr. D. D. Cunningham.	Paṇḍit Nilamaṇi Mukherjee Nyā-
G. W. Forrest, Esq.	yālaṅkāra.
Bābu Pratāpa Candra Ghoṣa.	Mahāmahopādhyāya Maheṣa
His Grace the Most Rev. Dr. P.	Candra Nyāyaratna.
Goethals.	Dr. G. Ranking.
Dr. A. F. R. Hoernle.	Dr. Mahendralāl Sarkār.
The Rev. H. B. Hyde.	Dr. J. Scully.
Prince Sir Jehan Quḍr Muhammad	Major R. C. Temple.
Wahid Ali Bahadur.	Colonel J. Waterhouse.
J. Mann, Esq.	Dr. G. Watt.

PHILOLOGICAL COMMITTEE.

Maulvie Ahmad.	Mahāmahopādhyāya Maheṣa Can-
Sir Sayid Ahmad.	dra Nyāyaratna.
Bābu Gaurdās Basāk.	F. E. Pargiter, Esq.
Dr. A. Führer.	Captain D. C. Phillott.
Bābu Pratāpa Candra Ghoṣa.	Dr. G. Ranking.
Dr. A. F. R. Hoernle.	Rai Rāj Kumār Sarvādhikāri Ba-
Maulvie Khudabaksh Khan Bahadur.	hadur.
J. Mann, Esq.	Dr. Mahendralāl Sarkār.
Dr. Ācutoṣa Mukherjee.	Major R. C. Temple.
Paṇḍit Nilamaṇi Mukherjee Nyā-	Dr. G. Thibaut.
yālaṅkāra.	A. Venis, Esq.

COINS COMMITTEE.

Dr. A. Führer.	Dr. J. Scully.
Dr. A. F. R. Hoernle.	V. A. Smith, Esq.
C. J. Rodgers, Esq.	E. Thurston, Esq.

## HISTORY AND ARCHÆOLOGICAL COMMITTEE.

The Hon'ble Mr. Justice Amir Ali. His Grace the Most Rev. Dr. P.  
 H. K. W. Arnold, Esq. Goethals  
 Bābu Gaurdās Bāsāk. The Rev. H. B. Hyde.  
 W. H. P. Driver, Esq. Paṇḍit Mahanlal Vishanlal Pandia.  
 Dr. A. Führer. Major R. C. Temple.  
 Bābu Pratāpa Candra Ghoṣa.

## NATURAL HISTORY COMMITTEE.

E. C. Cotes, Esq. R. D. Oldham, Esq.  
 Dr. D. D. Cunningham. S. E. Peal, Esq.  
 J. F. Duthie, Esq. Dr. D. Prain.  
 Dr. G. M. Giles. Dr. J. Scully.  
 T. H. Holland, Esq. R. E. S. Thomas, Esq.  
 C. S. Middlemiss, Esq. E. Thurston, Esq.  
 L. de Nicéville, Esq. Dr. G. Watt.  
 Dr. Fritz Noetling.

## PHYSICAL SCIENCE COMMITTEE.

Dr. J. R. Adie. C. S. Middlemiss, Esq.  
 P. N. Bose, Esq. Dr. Āçutoṣa Mukherjee.  
 Dr. D. D. Cunningham. Dr. Fritz Noetling.  
 J. Eliot, Esq. R. D. Oldham, Esq.  
 Dr. G. M. Giles. Dr. D. Prain.  
 T. H. Holland, Esq. Dr. Mahendralāl Sarkār.  
 Dr. G. King. Dr. J. Scully.  
 The Rev. Father E. Lafont. Dr. W. J. Simpson.  
 J. J. D. La Touche, Esq. Colonel J. Waterhouse.

## ANTHROPOLOGICAL COMMITTEE.

W. Croke, Esq., S. E. Peal, Esq.  
 M. L. Dames, Esq. Rai Rāj Kumār Sarvādhikārī Baha-  
 dūr.  
 Bābu Çarat Candra Dās. Major R. C. Temple.  
 E. A. Gait, Esq. E. Thurston, Esq.  
 R. Greeven, Esq. Dr. G. Watt.  
 J. Mann, Esq.

The PHILOLOGICAL SECRETARY read a circular from the Secretary, Nagari Prachārini Sabhā, Benares, enumerating prizes for essays on certain subjects in Hindi. This can be seen in the Society's Office.

The PHILOLOGICAL SECRETARY exhibited four Arabic tombstones, sent by Surgeon-Major Brazier-Creagh from an old cemetery in the Kosh



Valley under the lofty Tuftan active volcano in Eastern Persia. The first, second, and fourth stones were andesites, and the third limestone.

The following papers were read :—

1. *Third Instalment of Indian Folk-lore Beliefs about the Tiger.*—  
By BĀBU ÇARAT CANDRA MITTRA, M.A., B.L. *Communicated by the  
Philological Secretary.*

The paper will be published in the *Journal*, Part III.

2. *Errata and Addenda to Blochmann's Translation of the Ain-i-Akbari.*—By MRS. HENRY BEVERIDGE. *Communicated by the Philological Secretary.*

The paper will be published in the *Journal*, Part I.

3. *Contributions to the theory of Warning Colours and Mimicry, No. 1.*—By F. FINN, Esq., B.A., F.Z. S.

The paper will be published in the *Journal*, Part II.

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### LIBRARY.

The following additions have been made to the Library since the meeting held in February last.

#### TRANSACTIONS, PROCEEDINGS, AND JOURNALS,

*presented by the respective Societies and Editors.*

Baltimore. Johns Hopkins University,—Circulars, Vol. XIV, No. 116.

Caen. La Société Linnéenne de Normandie,—Bulletin, Tome VIII (4<sup>e</sup> série), No. 3.

Calcutta. Indian Engineering,—Vol. XVII, Nos. 6-9.

———. Maha-bodhi Society,—Journal, Vol. III, Nos. 10 and 11.

———. The Medical Reporter,—Vol. V, Nos. 3-5.

———. Microscopical Society of Calcutta,—Bulletin, Vol. IV, No. 1.

Copenhagen. Kongelige Nordiske Oldskrift-Selskab,—Aarboger, Bind IX (II Række), Heft 3.

Havre. Société de Géographie Commerciale du Havre,—Bulletin Novembre-Décembre, 1894.

Leipzig. Der Deutschen Morgenländischen Gesellschaft,—Zeitschrift, Band XLVIII, Heft 4.

London. The Academy,—Nos. 1186-89.

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PROCEEDINGS  
OF THE  
ASIATIC SOCIETY OF BENGAL,  
FOR APRIL, 1895.

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The Monthly General Meeting of the Asiatic Society of Bengal was held on Wednesday, the 3rd April, 1895, at 9-15 P. M.

SURGEON-LIEUTENANT-COLONEL GEORGE RANKING, M.D., in the Chair.

The following members were present:—

Dr. A. W. Alcock, F. Finn, Esq., His Grace the Most Rev. Dr. P. Goethals, Dr. G. A. Grierson, Kumār Rāmeçvar Māliā, J. Mann, Esq., C. R. Wilson, Esq.

The minutes of the last meeting were read and confirmed.

Fourteen presentations were announced, details of which are given in the Library List appended.

The following gentlemen duly proposed and seconded at the last meeting of the Society were balloted for and elected Ordinary Members:—

The Hon'ble Mr. J. A. Bourdillon (re-elected).

J. H. Gilliland, Esq.

The Rev. J. L. Peach, M. A.

The following gentleman is a candidate for election at the next meeting:—

Maulavie Abdus Salam, M.A., Deputy Magistrate and Deputy Collector, proposed by Dr. A. F. R. Hoernle, seconded by Dr. G. A. Grierson.

The following gentleman has expressed a wish to withdraw from the Society:—

A. S. Lovelock, Esq.

The SECRETARY reported the death of the following Honorary Members :—

Major-General Sir H. C. Rawlinson, Bart., G.C.B., &c.  
Professor Hermann, L. E. Helmholtz.

The PHILOLOGICAL SECRETARY (Numismatic) read reports on the following finds of Treasure Trove Coins.

(I) REPORT ON three old silver coins, forwarded by the Collector of Murshidābād, with his No. 1356 G., dated Berhampur, the 8th April, 1894.

1, The coins are stated to have been found at Bhattabaṭi in Thana Manulla Bazār, while digging earth for making bricks.

2, They are rupees of Shāh 'Ālam, of the Murshidābād mint, and of the years 1189, 15<sup>a</sup> and [1178], 5. One of them is like No. 1188, and two like No. 1193 of the British Museum Catalogue.

(II) REPORT ON 59 old silver coins, forwarded by the Collector of Birbhūm, No. 38 G., dated Surī, the 13th April, 1894.

The Collector, in his letter addressed to the Commissioner of the Burdwan Division, No. 1036 G., dated Surī, the 27th November, 1893, states, that in the August preceeding, treasure consisting of 60 whole rupees, 16 half-rupees, and 43 quarter-rupees, was found in digging earth for rebuilding a house in the village of Bhavānīpur, within the Rājnagar outpost. Of this treasure only the half- and quarter-rupees were acquired for the Government, total 59 coins, which form the subject of the present report.

All the 59 coins are of British mintage, and (with one exception) of mint Murshidābād, San 19, as described in Mr. Thurston's History of the East India Company's Coinage, pp. 41-43. They may be detailed as follows :—

a,	With oblique milling, issue of 1793-1818, half-rupees,	
	as in Br. Mus. Cat., Nos. 39, 40.....	6
	quarter-rupees, as in Br. Mus. Cat., Nos. 41, 42 ....	11 17
b,	With straight milling, issue of 1818-1832, half-rupees,	
	as in Br. Mus. Cat., No. 46 .....	1
	quarter-rupees, not in Br. Mus. Cat. ....	28 29
c,	With plain edges and serrated rim, issue of 1832-1835,	
	half-rupees, as in Br. Mus. Cat., No. 49 .....	9
	quarter-rupees, not in Br. Mus. Cat. ....	3 12
		Total :— 58

The remaining piece is a quarter-rupee of the Sūrāt mint, date 1215, with plain edges, San 46, as in Br. Mus. Cat., No. 100.

(III) REPORT ON 17 old silver coins, forwarded by the Deputy Commissioner of Nāgpur, with his No. 3354/656, dated Nāgpur, 30th May, 1894.

The coins are stated to have been found on the 18th October, 1893. The exact locality of the find is not mentioned.

The coins are old Nāgpuri Rupees of native mintage, in the usual indifferent condition, and of a very common type. Sixteen among them are issues of Aḥmad Shāh Bahādur (1161–1167 A.H. = 1748–1754 A.D.) and one of Shāh 'Ālam. Some of the former show the mint name Sūrat, others seem to have Katak. The date is lost on all of them.

(IV) REPORT ON 51 old silver coins, forwarded by the Deputy Commissioner of Nāgpur, with his No. 4558/656, dated Nāgpur, 23rd July, 1894.

The coins are stated to have been found in Mouza Kumbhāri, Tahsil Ramtek, while digging in a field.

They are small silver coins, of the kind generally known as "Gadia." They are described and figured in the late Sir A. Cunningham's *Coins of Mediæval India*, p. 53, plate VI., figs. 7 and 8, and elsewhere. The coins of the present find are of two slightly differing varieties or dies, and very much clipped.

(V) REPORT ON eleven old silver coins, forwarded by the Deputy Commissioner of Shāhpur, with his No. 751, of 2nd November, 1895.

The coins are stated to have been found in the town of Miani in the Shāhpur district.

They are all rupees of the Durrāni king of Afghanistan, Maḥmūd Shāh, who reigned from 1216–1245 A.H. = 1801–1829 A.D. They are also all of the Kashmīr mint, and of the year 1217, regnal 2.

(VI) REPORT ON five old silver coins, forwarded by the Collector of Champāran, with his No. 832, dated Mōṭihāri, the 5/16th November, 1894.

The Collector reports in his letter, addressed to the Commissioner of the Patna Division, No. 831, dated Mōṭihāri, 5/16th November, 1893, that in February, 1893, hidden treasure, amounting to Rs. 2,000, was found in the village of Dumri, under a pakka wall. Only 5 coins of this treasure were recovered by the police.

These five coins are rupees of the following Mughul emperors of Delhi:—

a, AKBAR, 963–1014 A.H. = 1556–1605 A.D.

An Ilahī rupee, month Isfandārmuz, of the Aḥmad-ābād mint, regnal year 41 (?), like Br. Mus. Cat., No. 178 .....

1



b, JAHĀNGĪR, 1014–1037 A.H. = 1605–1627 A.D., type as in Br. Mus. Cat., No. 472, mint Qandahār, date lost, regnal year 12 .....	1
c, SHĀH JAHĀN, 1037–1068 A.H. = 1627–1658 A.D., type as in Br. Mus. Cat., No. 643, mint Patna, date 1067, regnal lost, month lost .....	1
d, AURANGZĪB, 1068–1118 A.H. = 1658–1707 A.D., two varieties, like Br. Mus. Cat., Nos. 731 and 777, mint of one Sūrat, dates [10]72 and 1109, regnal of one 41 ...	2

(VII) REPORT ON two old silver coins, forwarded by the Deputy Commissioner of Mandla, with his No. 2366, dated 12th November, 1894.

No information is given in the letter of the Deputy Commissioner with reference to the locality and date of finding the coins.

They are square rupees of Akbar, with the Kalimah, of the type shown in the Br. Mus. Cat., Nos. 127–151. Their dates are 1000 (in numeral figures, not expressed by *alif*) and 996. Their mints are lost.

(VIII) REPORT ON 24 old coins, forwarded by the Deputy Commissioner of Rawalpindi, with his No. 2568 G., of 16th November, 1894.

The coins are stated to have been found near Hasan abdal Tahsil Attock, in the Rawalpindi District.

All the coins are of impure gold, and belong to the class known as "Class B., Coins of the Great Kusāns," described by the late Sir A. Cunningham in the London Numismatic Chronicle, Part II for 1893, pp. 120–124.

The present collection consists of coins of three varieties, distinguished, as follows:—

	No. of specimens.
First variety; with two sub-varieties:—	
1st sub-variety: with the legends <i>bha</i> , <i>sīta</i> and <i>ṣāka</i> , as described and figured by Sir A. Cunningham, in ( <i>his</i> ) Plate II, No. 2, fig. 124 ( <i>l.c.</i> ):	13
2nd sub-variety, with <i>vi</i> instead of <i>bha</i> .....	1
<i>N.B.</i> —The legend is <i>ṣāka</i> , with long <i>ā</i> , as Sir A. Cunningham rightly observes ( <i>l.c.</i> , p. 122) not <i>ṣaka</i> as Thomas and V. Smith ( <i>Journal</i> , A. S. B., for 1894, p. 182, footnote 2) read. The long <i>ā</i> is indicated by the curve at the top of the right-hand stroke of the letter <i>sh</i> , which is distinctly shown in Cunningham's figure 2.	

Second variety ; with legends <i>bhadra</i> and <i>pakandhi</i> , as in Cunningham's Plate II, figure 12, p. 124 .....	6
Third variety ; with two sub-varieties:—	
1st sub-variety: legends <i>bha</i> , <i>saya</i> and <i>ṣāka</i> , as in Cunningham's Plate II, figure 6 .....	3
2nd sub-variety: legends <i>vi</i> , <i>saya</i> and <i>ṣāka</i> . Not in Cunningham.....	1

*N.B.*—The *ya* of *saya*, in sub-variety 1, has the old tridentate form, while in sub-variety 2, it has the modern form. One specimen of the 1st sub-variety reads *ṣāna* for *ṣāka*, which is probably a mere fault of minting.

(IX) REPORT ON 66 old silver coins, forwarded by the Deputy Commissioner of the Shāhpur District, with his No. 45, of 21st January, 1895.

The coins are stated to have been found in the village of Khabakki.

They belong to the so-called class of punch-marked coins, and are of two different types, viz., 26 are circular and 40 are angular (square or oblong). They are fully described and figured in the late Sir. A. Cunningham's *Coins of Ancient India*, pp. 54ff., plate I, fig. 1-19.

(X) REPORT ON 179 old coins, forwarded by the Deputy Commissioner of Gujranwālā, with his No. 1435, dated 2nd October, 1894.

The coins are stated to have been found in the village of Sadhu Guraaja in the Gujranwālā District.

They are all small coins of mixed metal, of Muḥammad Karluk (Nāṣiru-d-dīn), about 658 A.H. = 1259 A.D., of the well-known type, published in Prinsep's *Indian Antiquities*, vol. I, plate II, fig. 14 and elsewhere.

(XI) REPORT ON 548 old copper coins, forwarded by the Collector of Pūri, with his No. 1428, dated Pūri,  $\frac{22\text{nd}}{25\text{th}}$  September, 1893, and subsequent correspondence.

The Collector in his letter to the Commissioner of the Orissa Division, No. 1427, dated  $\frac{20\text{th}}{25\text{th}}$  September, 1893, states, that the coins were found about the beginning of March, 1893, buried in a small earthen pot, 2 feet below the surface, while excavating earthworks at Gurbai Salt Factory by the Salt Department at Manikaratna. He reports that the villagers were of opinion, that the pieces are more a kind of medal worn as armlets by women ; and he adds, that the shape of some of them supports this theory, but that from the dies on them, it is probable that they were some ancient coins of small value.

According to the Collector's letter to the Commissioner, there should have been 573 coins in the lot, but I have only been able to count 548. No number is stated in the Collector's letters to the Asiatic Society of Bengal; and it is, therefore, not quite certain what number of coins was actually dispatched to the Society. Unfortunately the coins were not counted immediately on arrival. They were received by me in an excessively bad state, thickly coated with ancient dirt and verdigris, and looking like a heap of rubbish. I had them first boiled in a sort of *purée* of tamarind, then put away to soak in the same for about 24 hours, and finally carefully cleaned by rubbing with towels. It is possible, that in the course of this process, the missing coins may have been destroyed or lost. In any case, the loss (if any) is trifling.

They are probably coins of the class current in certain parts of Ancient India, which are described and figured by the late Sir A. Cunningham in his *Coins of Ancient India*, pages 54-66, plates I-III. These coins existed in two distinct varieties: some were cast, while others were punched with dies (single or double). The coins of the present collection, with a few exceptions, belong to the former variety, of cast coins. Some of them still show the protruding marks of the mould in which they were cast. They are of very considerable interest for this reason that no coins of this particular type has ever before been found,—at least not to my knowledge. I shall, therefore, describe them in detail. See Plate II.

The best made of the coins are clearly die-struck ones. They are so much worn down by usage, that the designs on most of them are barely discernible. On some of them, however, sufficient remains to identify them with coins of the Indo-Scythian class. The obverse shows the well-known standing figure of king Kanishka, pointing with his right hand down to the fire-altar; the reverses show the figures of MAO or MIIPO, A<sup>o</sup>PO (Pl. I, fig. 1), and OADO (Pl. I, fig. 2),\* as seen on Kanerki coins. No trace of the legend remains; and in its absence, of course, it is impossible to be quite certain of the identity; but the resemblance of the figures on both the obverses and reverses to those on the corresponding Kanerki coins is very striking. The legends on the Kanerki copper coins were very brief, consisting of one or two words only, arranged along the margin; they would, therefore, be peculiarly liable to extreme erosion. The Kanerki copper coinage, however, was extensively imitated in the later Indo-Scythian period; and the coins here described, may belong to this rather than to the genuine, contemporary Kanerki

\* Figure 2 on the Plate is made up of two coins. The reverse shows OADO; the obverse shows Kanerki from another coin.

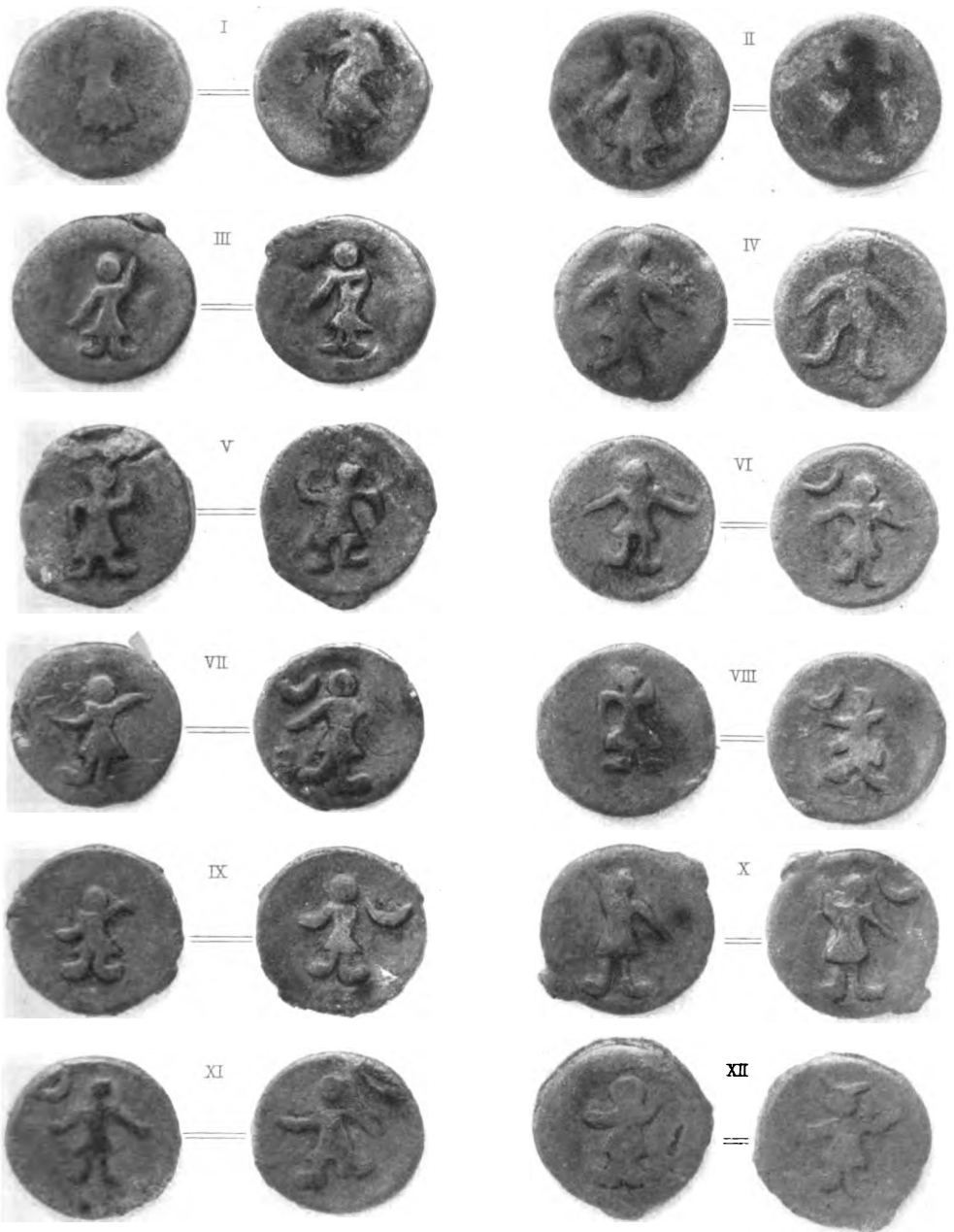


Photo-etching

Survey of India Offices, Calcutta, April 1895.

ANCIENT INDIAN COPPER COINS FROM PŪRĪ



coinage. Of these Indo-Scythian coins there are 47 in the present collection.

The whole of the remainder of the coins are cast coins, and very crude imitations of those of Kanerki. They all show two standing figures, one on each face of the coin, with their arms in varying positions. There is no legend, but most of them are marked with a crescent placed in varying parts of the field. Accordingly they may be distributed into the following classes and varieties.

CLASS I. No crescent on either side.

Variety 1 (Pl. II, fig. 3): *obv.*, figure with r. arm pointing down, l. arm raised, *rev.*, r. arm downwards, l. arm a-kimbo ..... 80

*N.B.*—In the case of some specimens belonging to this variety it is difficult to say whether they are struck or cast.

Variety 2 (Pl. II, fig. 4): *obv.* and *rev.*, both arms pointing down. .... 1

Variety 3: *obv.*, r. arm pointing down, l. arm upwards; *rev.*, both arms pointing upwards ..... 1

Variety 4 (Pl. II, fig. 5): arms bent right-angularly at elbow; *obv.*, arm downwards, l. arm upwards; *rev.*, r. arm upwards, l. arm downwards ..... 1

Variety 5: arms bent right-angularly at elbow; *obv.* and *rev.*, r. arm upwards, l. arm downwards ..... 1

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CLASS II, with crescent on the reverse, in the left top of the field:—

Variety 1: *obv.*, r. arm level, l. arm raised; *rev.*, r. arm is wanting, l. arm level ..... 8

Variety 2: *obv.* and *rev.*, r. arm raised, l. arm pointing down; *rev.*, r. arm pointing down, l. arm raised ..... 16

Variety 3 (Pl. II, fig. 6): *obv.* and *rev.*, both arms level 6

Variety 4 (Pl. II, fig. 7): *obv.*, r. arm level, l. arm raised; *rev.*, r. arm pointing down, l. arm a-kimbo ..... 6

Variety 5: *obv.* and *rev.*, r. arm pointing down, l. arm raised ..... 4

Variety 6 (Pl. II, fig. 8): *obv.*, both arms bent at elbow at right angles, r. downwards, l. upwards; *rev.*, r. upwards, l. downwards ..... 1

Variety 7: *obv.*, r. arm raised, l. arm pointing down; *rev.*, both arms level ..... 1

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42

CLASS III, with crescent on <i>reverse</i> in <i>right top</i> of field :—	
Variety 1 (Pl. II, fig. 9) : <i>obv.</i> , r. arm pointing down, l. arm raised ; <i>rev.</i> , r. arm pointing down, l. arm a-kimbo	258
Variety 2 Pl. II, fig. 10) : <i>obv.</i> and <i>rev.</i> , r. arm raised, l. arm pointing down .....	50
β, Variety 3 : <i>obv.</i> and <i>rev.</i> , both arms bent at elbow at right angles, r. upward, l. downwards .....	1
	— 309
CLASS IV, with crescent on both <i>obverse</i> and <i>reverse</i> :—	
Variety 1 : crescent on r. <i>top</i> of <i>obverse</i> , and l. <i>top</i> of <i>reverse</i> :—	
Sub-variety <i>a</i> : <i>obv.</i> , r. arm pointing down, l. arm raised ; <i>rev.</i> , r. level, l. arm a-kimbo.....	9
Sub-variety <i>b</i> (Pl. II, fig. 11) : <i>obv.</i> , both arms level ; <i>rev.</i> , r. arm level, l. arm pointing down .....	5
Variety 2 : <i>obv.</i> and <i>rev.</i> , crescent on l. <i>top</i> ; also <i>obv.</i> and <i>rev.</i> , r. arm pointing down, l. arm raised .....	1
Variety 3 : <i>obv.</i> and <i>rev.</i> , crescent, on r. <i>top</i> :—	
Sub-variety <i>a</i> : <i>obv.</i> and <i>rev.</i> , r. arm raised, l. arm pointing down .....	2
Sub-variety <i>b</i> : <i>obv.</i> , r. arm pointing down, l. arm raised ; <i>rev.</i> , r. arm level, l. arm a-kimbo.	2
	— 19
CLASS V (Pl. II, fig. 12), with crescent on head of <i>reverse</i> figure. <i>Obv.</i> , r. arm level, l. arm raised ; <i>rev.</i> , r. arm level, l. arm a-kimbo .....	
	1
	— 1

Besides there are a number of specimens which are too badly preserved to admit of being classed in any of the above divisions ; altogether 46.

Regarding the age of these coins, some conclusion may be drawn from the fact of their association with coins which belonged to the Indo-Scythian coinage. They are clearly imitations of the latter coinage ; and it may be assumed that they would not have been made, unless the Indo-Scythian coins had still been current in Northern India. There would have been no object in copying an obsolete coinage. The period of the Indo-Scythian coinage is fairly well-known. Kanishka reigned in the last quarter of the first century A.D. His copper coinage, as well as imitations of it, passed current for about two centuries afterwards. They are found numerously in the Panjāb, and occasionally much further east. The present, I believe, is the first occasion of any

Indo-Scythian copper coins having been found in the extreme east of North India. The fact of their having been found near Pūri, the site of an ancient shrine, and place of pilgrimage, may account for it. The cast coins of the present find are clearly local imitations of Indo-Scythian coins, and their age cannot well be later than the fourth century A.D. Whether they were intended to pass current as coins, in the ordinary sense, may not be quite certain. They may have been meant to be used as temple-offerings by the pilgrims, similar to certain imitations of Yaudhēya coins found in the Panjāb. Possibly they may have been only intended as ornaments.

The weights of the (apparently) Indo-Scythian coins I have found to vary between 120 and 230 grains. The weights of the cast coins are as follows :—

Class	I,	varying from 122 to 211 grains.
”	II,	” ” 116 ” 176 ”
”	III,	” ” 106 ” 162 ”
”	IV,	” ” 112 ” 146 ”
”	V,	” ” 164.

The weight (full) of genuine Indo-Scythian Kanerki copper-coins, as given by Sir A. Cunningham, is from 130 to 260 grains.

(XII) **REPORT** on 32 old silver coins forwarded by the Collector of Burdwan, with his No. 2460G, dated the 18th March, 1895.

These coins belong to a lot of 63 which are said to have been dug out from a ruined house belonging to some persons in Rasūlpur, Thana Kulna, apparently in January, 1895. Only 32 of the lot, those now under report, were recovered by the police.

All the 32 coins are rupees of the Mughul emperor ‘Ālamgir II, who reigned from 1167–1173 H. = 1754–1759 A. D. They are all of the mint Murshidābād, and the year 1171 H. and the 4th regnal year. They bear the usual mint-mark of Murshidābād, a five-rayed star, on the reverse, but on the obverse they show, in addition, a small sun over the *he* of *bādshāh*, similar to that on the Murshidābād issue of 1180 H. of Shāh ‘Ālam (see British Museum Catalogue, No. 1188, Plate XXIX).

(XIII) **REPORT** on 892 old copper coins, forwarded by the Deputy Commissioner of Mandla, with his No. 1991, dated the  $\frac{15^{\text{th}}}{24^{\text{th}}}$  September, 1894.

These coins are stated to have been found in a field in the Mauzah Kindri, in the Mandla Tahsil.



They are all square copper coins of the Sultāns of Mālvā. These copper coins used to be very superficially struck; accordingly the legends on most of them are worn out so much that neither name nor date can be recognized, though sufficient remains to show unmistakably the Mālvā type of coin. There are, however, a small number (less than 100) on which sufficient traces of a name or date remain, to attribute them more particularly, as shown below:—

GHĪYĀṢ SHĀH, 880-906 H. = 1475-1500 A. D., of two sizes, no date legible .....	4
NĀṢIR SHĀH, 906-916 H. = 1500-1510 A. D., of two sizes, date 913 on one .....	8
MAḤMŪD SHĀH, 916-937 H. = 1510-1530 A. D., of two sizes, dates 916, 917, 918, 919 (?), 922 on 15 specimens .....	72
Total ...	84

There are also two curious coins among the lot. They have the usual Mālvā type, but they show the name *Muḥammad* in full and quite distinct. There is no Sultān of that name known among the Khilji house of Mālvā. In the Ghōri house which preceded it, there is a Muḥammad Ghazni Khān, who reigned 838-839 H., but he is not known to have struck any coins. Moreover the coins seem to show traces of the dynastic name Khilji, and the mutilated date on one of them does not fit Muḥammad Ghazni Khān. Of this date the unit figure 2 is quite distinct, it also shows a slightly mutilated decade figure, which (from the remains of it) can only be either 6 or 9, probably the former. The only date, that can be made up of these figures to agree with the known period of the Mālvā Sultāns, is 862 (or perhaps 892). The year 862 would fall within the reign of Maḥmūd I, while 892 would fall to Ghiyāṣ Shāh. The name, however, reads quite clear "Muḥammad," not "Maḥmūd."



(XIV) REPORT on 64 old gold coins, forwarded by the Deputy Commissioner of the Jhang District, with his No. 423, dated 1st April, 1895.

In a previous letter, No. 36, dated the 20th March, 1895, the coins are stated to have been found in the Jhang District, but no further particulars regarding the date and exact locality of the find are given. Together with the coins, a number of gold and silver ornaments, comprising thirteen sets, were sent. As to the finding of these ornaments,

no particulars whatever are given. They have every appearance of being modern manufacture.

The coins are of a mixture of gold and silver, and are very old. They are precisely of the same description, in every particular, as the 62 coins, found in 1888 in the Bijnōr District, N.-W. Provinces, and described and published by me in the *Proceedings* of this Society, for November, 1888, p. 205. They are also referred to in Mr. V. A. Smith's paper in the *Journal* of the Society for 1895, pp. 181, 184, on the "Coinage of the Gupta Period." The coins belong to the Class of the so-called "Later Indo-Scythian Coins," and to the Group of "Later Great Kuṣāns, Class B," or the Group of "Early Little Kuṣāns." I repeat their description, as it was given not quite correctly in the *Proceedings* for 1888.

*Obv.* Crude figure of king standing to left. Under his left arm *kidara*; outside spear *kshaṇa*; to left of king's right leg *kapana*, between this word and the leg one large dot or a cluster of dots (3 to 5).

*Rev.* Goddess, seated on throne with cornucopial in left hand; over her head a crescent, generally let into the dotted marginal circle. Monogram, in top of right field,  or . In the middle of right field, near the margin, a large letter, which seems to be *la* in some, *sa* and *sala* in other specimens.

The following is a list of the ornaments:—

1,	Earrings;	...	...	gold,	2 specimens.
2,	Ear-studs	...	...	"	3 "
3,	Lockets	...	...	"	2 "
4,	Pieces	...	...	"	12 "
5,	Earrings,	...	...	silver,	25 "
6,	Bangles	...	...	"	2 "
7,	Do. (another kind)	...	...	"	4 "
8,	Do. (smaller)	...	...	"	6 "
9,	Armbands	...	...	"	16 "
10,	Collar	...	...	"	1 "
11,	Rings	...	...	"	2 "
12,	Bracelets	...	...	"	9 "
13,	Sets of balls	...	...	"	2 "
				<hr/>	
	Total	...	...		86

The PHILOLOGICAL SECRETARY read an obituary notice of the death of Major-General Sir H. C. Rawlinson, Bart., G. C. B., &c.

The Council regret that it has fallen to them to report the death of Major-General Sir H. C. Rawlinson, Bart., G.C.B., F.R.S., D.C.L., Oxon., LL.D., Cantab. and Edin., K.L.S., and an Honorary Member of this Society since the year 1853.

Henry Creswicke Rawlinson was born at Chadlington, Oxfordshire, in 1810, and was educated at Ealing School. In 1827, when only seventeen years of age, he landed in India, and was attached to the Bombay Army till 1833. He was then deputed on political duty to Persia, where he was actively employed till the rupture of diplomatic relations with that country in 1839. On his return to India he was appointed British Agent at Kandahar, which he successfully held from 1840 to 1842, during the disasters of the Kabul war.

In 1844, he returned to political duties in Persia, where in the year 1851 he rose to the rank of Consul-General, from which post he retired in 1855, only to be made, on his return to England, a Crown Director of the East India Company. In 1856, he retired from Indian Service with the title of K.C.B., and, after a short period spent in the Council of India, he was sent in 1859, as Envoy and Minister Plenipotentiary, to Teheran, where he remained till 1868. In that year he returned to England and was again appointed a Life Member of the Secretary of State's Council. In 1891, he was created a Baronet "in recognition of his distinguished services to the State, stretching over a long period of years."

In addition to the above-named English honours, Sir Henry Rawlinson was a "Chevalier of the Order of Merit" of Prussia, an "Associé étranger" of the French Institute, and a Foreign Honorary Member of the Vienna Imperial Academy of Sciences. He was also a Knight of the First Class of the Persian Order of the Lion and the Sun.

To Members of this Society his claims to literary recognition are well known. As a political writer his authority on the Eastern question has long been established by the series of articles commencing with a paper on that subject in the *Quarterly Review* for 1849, and culminating in his *England and Russia in the East*, which appeared in 1875, and is still looked upon as a work of first class importance. The seventeen years spent in Persia and Turkish Arabia were, however, not devoted to politics alone. As a linguist Henry Rawlinson stood in the first rank of the brilliant band of discoverers of the middle of this century. His numerous papers, commencing in the year 1846, on the antiquities of the East, and more especially on the cuneiform inscrip-

tions of Persia, Assyria and Babylonia, including his famous copy of Behistun inscription made in 1847, and published two years latter, which appeared in the Journals of the Geographical and Royal Asiatic Societies have given him an imperishable name. As Professor Max Müller well remarks, if we followed the process by which Grotefend, Burnouf, Lassen and Rawlinson arrived at the decipherment of the cuneiform tablets, we should see that "the discovery of the alphabet, the language, the grammar, and the meaning of the inscriptions of the Achæmenian dynasty deserves to be classed with the discoveries of a Kepler, a Newton, or a Faraday."

The PHILOLOGICAL SECRETARY exhibited an ancient map of Bhakar on the Indus, and read the following letter from Mr. T. D. La Touche, of the Geological Survey, from whom it had been received.

"I am sending you by parcel post a tracing of an ancient plan of the island of Bhakar, on the Indus, with portions of the towns of Rohri and Sukkur, which may be of interest to some of the members of the Society.

I have not been able to learn much of the history of the plan, but what follows was told me by the Mukhtîār-kâr of Rohri, through whom the plan was obtained from the owner by Mr. Pratt, Deputy Collector of Rohri, who lent it to me for copying.

The owner is a Sayyad, Ya'qûb 'Ali by name, whose ancestor was, at the time of Akbar's annexation of Sind (1591-92), sub-governor of Rohri, and was made by him governor of the island of Bhakar. The plan was made by Akbar's order, by an artist whose name is unknown, in duplicate, one copy being sent to the Emperor at Delhi, and the other handed down in the governor's family. It would be interesting to learn whether the other copy, sent to Delhi, is still in existence or not.

The plan is, I imagine, a fairly faithful representation of the aspect of Bhakar as it was before the buildings were demolished. The most interesting point about the whole plan is, however, the building shown in the middle of the river, standing on a rock below the island of Sudh-belâ. This building has entirely disappeared now; indeed, it is evident that at the time the plan was made, the rock on which it stood was

much undercut by the river, and now not a vestige of the rock itself remains. I am told however, that the existence of a hospice or place of refuge, in the middle of the river at Bhakar is mentioned by ancient travellers in Sind, and this is probably the building referred to.

The great tower or Minaret of Mir Muḥammad Ma'sūm, which is so conspicuous an object in Sukkur at the present time, is shown near the lower end of the plan. I have only doubtfully been able to identify any of the other tombs with those now in existence, which are all in a more or less ruinous condition. I have had a translation made of all the inscriptions on the plan, and append it herewith.

The method of fishing for 'Pulla' with nets by men floating down the stream during the floods on earthen pots, is a common sight in Sukkur at the present day. The form of net and method of killing the fish before slipping it into the 'ghara' has not changed in the slightest degree.

It is somewhat curious that not a single camel is shown on the plan, but there are three elephants, which are never seen in Sind nowadays, one of them being ferried across the river on a boat. The distinctive Sindhi hat is also conspicuous by its absence. It was not introduced into Upper Sind, I believe, till comparatively recently."

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- |                                                                                                  |                                                                            |
|--------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|
| (1) Boat coming from Ṭhaṭṭha to Sakkār.                                                          | 1 کشتی ما آمد رفت از صوبه تھتھ<br>می آید -                                 |
| (2) House built by Mir Ma'sūm.                                                                   | 2 غورابه بنا کردہ میر معصوم -                                              |
| (3) Mauza Cēri 'Amla, pargana Jatwī and gardens of Qaṣbah Sakkār.                                | 3 موضع چیری عملہ پرگنہ جتوی<br>و باغات قصبہ سکھر -                         |
| (4) Tomb of Ḥasan 'Ali.                                                                          | 4 مقبرہ حصن علی -                                                          |
| (5) Minaret and quadrangle built by Mir Muḥammad Ma'sūm, in the town of Sakkār, which is famous. | 5 منارہ و چوکندی بنا کردہ میر<br>محمد معصوم در قصبہ سکھر کہ مشہور<br>است - |
| (6) Tomb of Khān Maḥmūd.                                                                         | 6 مقبرہ خان محمود -                                                        |
| (7) Hindu Cemetery built by Tirath Caudhri, of the town Sakkār.                                  | 7 گورستان ہندوان بنا کردہ تیرتھ<br>چودھری قصبہ سکھر -                      |

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- (9) Men swimming on *mashk* in the middle of the river. مشک باز در میان دریا - 9
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The following papers were read :—

1. *Tibbat 365 years ago*,—By MAJOR H. G. RAVERTY. Communicated by the Philological Secretary,

2. *Coins of the Musalman Kings of Ma'bar*,—By C. J. RODGERS, ESQ., Honorary Numismatist to the Government of India.

3. *On some Rare Muhammadan coins*,—By SURGEON-CAPTAIN W. VOST.

The papers will be published in the *Journal*, Part I.

4. *On some Indian Land Mollusca*,—By COLONEL H. H. GODWIN-AUSTEN.

The paper will be published in the *Journal*, Part II.

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### LIBRARY.

The following additions have been made to the Library since the meeting held in March last.

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### TRANSACTIONS, PROCEEDINGS, AND JOURNALS,

*presented by the respective Societies and Editors.*

Berlin. Der K. Preussischen Akademie der Wissenschaften zu Berlin,—Sitzungsberichte, XXXIX-LIIL. 1894.

Bombay. The Indian Antiquary,—February and March, 1895.

Buenos Aires. Academia Nacional de Ciencias en Córdoba,—Boletín, Tome XIV, No. 1.

Caen. La Société Linnéenne de Normandie,—Bulletin, Tome VIII (4<sup>e</sup> série), Nos. 1-4.

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———. Indian Medical Gazette,—Vol. XXX, No. 3.

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- . Royal Geographical Society,—Geographical Journal, Vol. V, No. 3.
- . Royal Microscopical Society,—Journal, Part 6, 1894.
- . Royal Society,—Proceedings, Vol. LVI, No. 338.
- . Royal Statistical Society,—Journal Vol. LVII, Part 4.
- Lyon. La Société D'Agriculture Sciences et Industrie de Lyon,—Annales, 7<sup>e</sup> série, Tome I.
- Munich. Der K. B. Akademie der Wissenschaften zu Munchen,—Sitzungsberichte, Math.-phys. cl., Heft 4, 1894.
- Mussoorie. The Indian Forester,—Vol. XXI, No. 3.
- Nantes. Société des Sciences Naturelles de L'Ouest de la France,—Bulletin, Tome IV, Nos. 2 et 3.
- New York. The Nation,—Vol. XLIV, Nos. 1140 and 1141.
- Paris. L'Académie Nationale des Sciences, Belles-Lettres et Arts de Bordeaux,—Actes, 3<sup>e</sup> série, Tome LIV.
- . Journal Asiatique,—Tome IV (IX<sup>e</sup> série), No. 2.
- . Musée Guimet,—Revue de L'Histoire des Religions, Tome XXIX Nos. 2 et 3.
- . Du Muséum d'Histoire Naturelle,—Nouvelles Archives, 3<sup>e</sup> série, Tome VI.
- . Société D'Anthropologie de Paris,—Tome V (IV<sup>e</sup> série), Nos. 2 et 3.
- . ———. Mémoires, Tome I (III<sup>e</sup> série), No. 2.
- . Société de Géographie,—Comptes Rendus des Séances, Nos. 2-4, 1895.
- . Société Philomathique de Paris,—Comptes Rendus des Sommaires des Séances, Nos. 8 et 9, 1895.
- Philadelphia. American Academy of Political and Social Science,—Annals, Vol. V, No. 5.
- Rome. Società Degli Spettroscopisti Italiani,—Memorie, Tome XXIV, No. 1.
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PROCEEDINGS  
OF THE  
ASIATIC SOCIETY OF BENGAL,  
FOR MAY, 1895.

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The Monthly General Meeting of the Asiatic Society of Bengal, was held on Wednesday, the 1st May, 1895, at 9-15 P. M.

DR. A. F. RUDOLF HOERNLE, in the chair.

The following members were present :—

Dr. A. Alcock, The Hon. Mr. T. D. Beighton, J. C. Bose, Esq., Dr. G. A. Grierson, C. L. Griesbach, Esq., C. S. Middlemiss, Esq., Bābu Pañcānana Mukerjee, L. de Nicéville, Esq., Dr. F. Noetling, Surgeon Lieut.-Col. G. Ranking, P. C. Rāya, Esq., Pañdit Harapasād Čāstri.

Visitors :—Maulavie Abdus Salam, H. H. Hayden, Esq., W. Mackintosh, Esq.

The minutes of the last meeting were read and confirmed.

Thirty-seven presentations were announced, details of which are given in the Library List appended.

The following gentleman duly proposed and seconded at the last Meeting of the Society was balloted for and elected an Ordinary Member :—

Maulavie Abdus Salam.

The following gentleman has expressed a wish to withdraw from the Society :—

E. C. Cotes, Esq.

The Council reported that there were five vacancies in the list of Honorary Members, the Council therefore recommended the four following gentlemen for election as Honorary Members at the next meeting :—

Professor Hofrath Georg Bühler, Ph.D., is at present Sanskrit Professor at the Vienna University. He was formerly a member of the Bombay Education Service, and during that period of his career laid the foundation of a reputation for accurate learning which has ever since gone on increasing. He took a prominent part in the foundation of the well-known Bombay Sanskrit series, in which many excellent editions of classical works in that language, have issued from his pen. It is owing mainly to his efforts that the admitted excellence of editions of Sanskrit works published in Bombay should be attributed. Dr. Bühler has published many articles dealing with Sanskrit and Prakrit Epigraphy in the *Indian Antiquary* and other scientific *Journals*, and is now one of the greatest living authorities on the subject. Foremost among his works in this branch of study may be mentioned his edition and translation of the Edicts of Aṣōka, published in German in the *Zeitschrift des deutschen morgenländischen Gesellschaft*, and in English in *Epigraphia Indica*. In *Oriental Biography*, his Life of the Jain Monk, Hēmacandra, is a model of learned research combined with an interesting style. His latest works have appeared in the *Vienna Oriental Journal* under the title of *Oriental Studies*, and the last of these is a most important contribution to our knowledge of the Indian Alphabet, which he conclusively shows to be derived from that of ancient Phœnicia.

Lord Rayleigh, who is now prominently before the scientific world as the discoverer of a new gas in the atmosphere, has for many years been a leading Fellow of the Royal Society of London, to which he was admitted in 1873. He was Senior Wrangler and Smith's Prizeman in 1865 and for five years, Professor of Experimental Physics in Cambridge University. He has written many scientific papers dealing, in the earlier years, chiefly with Electricity and Sound, but latterly with a wider range of subjects. His best known work is an abstruse treatise on sound, published eighteen years ago. He has been the recipient of numerous honorary degrees from British and Foreign Universities, and is a Member or Associate of many Scientific Societies.

At the Anniversary Meeting of the Chemical Society held in March last, the Faraday Medal was presented to Lord Rayleigh for the distinguished services he has rendered to Chemical Science through the discovery of Argon.

Lieutenant-General R. Strachey, R. E., F. R. S., C. S. I., is distinguished in many branches of Science, chiefly in Physical Geography, Geology, Botany and Meteorology. He was engaged in the scientific survey of Kumaon and Garhwal in 1848, where he made valuable geological and botanical researches and collections, and wrote an account of its Physical Geography. He is the Chairman of the Meteorological Council, in which capacity he investigated the atmospheric phenomena resulting from the great earthquake at Krakatoa, some years ago. He was delegate of Great Britain at the International Prime Meridian Conference at Washington in 1884, at which Greenwich was chosen as the Prime Meridian.

He is distinguished as a Geographer, and was President of the Royal Geographical Society in 1887-89, when he delivered a course of lectures on Geography at Cambridge University, which have been since published, and he wrote the article on "Asia" in the new edition of the Encyclopædia Britannica.

He has received an honorary degree at Dublin and Oxford Universities.

He has written papers on a large variety of scientific subjects, and has been Vice-President of the Royal Society more than once.

Mr. C. H. Tawney, C. I. E., M. A., at present Librarian of the India Office, has distinguished himself by his researches in Sanskrit and Prakrit Literature. He has translated the *Uttara-rāma-carita* (1871), *Two Centuries of Bhartṛhari* (in English verse, 1877), and the *Mālavikāgnimitra* (2nd Edition, 1891). He has also contributed several papers to the *Journal* of this Society and to the *Indian Antiquary*. His translation of the *Kathā-sarit-sāgara*, &c., of Sōma-dēva, prepared for the *Bibliotheca Indica*, is a classical work which has rendered important services to students of ancient Indian civilization, and of the science of Folk-tales. The Society owes a special debt to Mr. Tawney for this most valuable work. Since his retirement to Europe and acceptance of his present post, he has added another laurel to those already earned, by translating the important work entitled the *Kathā-kōṣa* or *Treasury of Stories*, for the Oriental Translation Fund.

The CHAIRMAN announced that Mr. Frank Finn had been appointed a member of the Council and Anthropological Secretary of the Society.

The CHAIRMAN also announced that Dr. A. Alcock had been appointed to officiate as General Secretary in the place of Mr. C. R. Wilson, in addition to his own duties as Natural History Secretary.



Dr. A. F. Rudolf Hoernle exhibited four copper coins of Abdagases and Kadphises II. with new legends in Bactrian characters. He said:—

The two Kadphises coins are out of a lot of 422 copper coins, found recently on the Kalka-Kasauli road, in the territory of the Mahārāja of Paṭialā. The whole of the coins was transmitted for examination to Mr. C. J. Rodgers, Honorary Numismatist to the Government of India, in Amritsar. He found among them about 40 coins of Kanishkar of well-known types. The rest were coins of Kadphises II., all of them of the ordinary type, though of different dies, except the two, now exhibited. These two, Mr. Rodgers noticed, bore Bactrian legends on the reverse side, quite different from the usual one. He sent them down to me for confirmation. One of them undoubtedly shows an entirely different and new reading. Only one-half of the legend, on the right hand marginal semi-circle, is legible. It reads as follows:—

(*hegoḍha*)*sa* or (*hegoṣa*)*sa apraṭaha(tasa)*.

The portion enclosed in brackets is not quite distinct. It is quite possible that *hegoḍhasa* which seems to give no sense is really *tradatasa*. But *apraṭa* is perfectly distinct; and *tasa* fairly so. One would expect *apraṭihatasa*, and it is possible that that is really the reading, as the upper part of the apparent akshara *ṭa* is rather rubbed. In any case the word *apraṭihatasa* forms quite certainly a part of the legend, and it occurs in that place of the coin which usually shows the words *himakapiṣasa* (see Br. Mus. Cat., pl. xxv., fig. 12). The Bactrian letters of these two sets of words could not easily be mistaken for one another. The legend, therefore, on this coin, is certainly a new one. In its entirety it probably reads:—

*Maharajasa rajadirajasa tradatasa apraṭihatasa.*

The term *apraṭihata* has hitherto never been found on any of the coins of Kadphises II. It occurs, however, on the coins of Gondophares and Rañjabala, who must have been nearly contemporary with him. A variety of it also occurs on the earlier coins of Lysias, Artemidorus and Philoxenus.

With regard to the other Kadphises coin, I am not quite so certain. Nearly the whole of the Bactrian legend is obliterated. There are only three letters that admit of being read at all. They stand in the middle of the right-hand margin, near the bull's head, where ordinarily the letters of the word *himakapiṣasa* come in. They now seem to read *sa maya*, but they are slightly mutilated and rubbed; they stand exactly in the place of *himaka*, and on the whole the probability is

that they are really the remnants of that combination of letters. If this be so, this coin is one of the ordinary kind.

The Greek legend on the obverse of both coins is almost wholly obliterated. On the new coin, a trace of ΜΕΓΑΚΟ (*i.e.*, *μεγας οσημο*) is just recognisable near the right foot of the figure of Kadphises, in its usual place.

The two Abdagases coins are of very peculiar interest, inasmuch as they present the only instance, hitherto discovered, of Bactrian script running from the left to the right. Hitherto, as is well-known, that script has invariably been found running from the right to the left.

The two coins were found among a lot of Bactrian copper coins, procured by Mr. J. A. Bourdillon, C.S., from the Gayā bazar, in December last. The lot consisted mostly of coins of Soter Megas, Kadphises I. (*Kujula*-type), and Gondophares, with a few of Abdagases of the usual well-known types, and in the usual, much abraded condition. I picked out the best preserved specimens (purchased for 2 annas each), for Mr. Bourdillon's and my own collection, and the rest were returned to the bazar. On closer examination I discovered, among the Abdagases coins, two specimens which greatly differed in two points from the usual type of his coins. In the first place, I noticed, to my great surprise, that a portion of the Bactrian legend runs from the left to the right. In the second place, it appeared that the whole legend was (as usual on most Bactrian coins, copper as well as silver) arranged in two sections. On the ordinary copper coins of Abdagases, as well as of Gondophares, and other late kings, the legend runs continuously all round the margin, and is to be read from the inside of the coin. This, however, is not the usual arrangement on Bactrian coins. As a rule it is not written continuously, but in two sections. The smaller section of the Bactrian legend (on the reverses), giving the name, commences on the lower right of the margin, and runs, along the bottom of the coin, from right to left, to the lower left of the margin; and must be read from the outside of the coin. The larger section commences on the lower right of the margin, and runs up all round the top of the coin, down to the lower left; and must be read from the inside of the coin. Both sections, therefore, commence on the lower right of the margin, and read from the right to the left, in diverging lines. The same arrangement holds good for the Greek legends (on the obverses); only in this case, as Greek is read from the left to the right, the starting point of the two sections is the lower left of the margin. Now on our new Abdagases coins, there is a curious mixture of the Greek and Bactrian arrangements. The legend is written in two sections; the smaller section, giving the name, *Abdagaçasa*, begins on the lower right, and runs across

to the lower left, and reads from the outside of the coin, from the right to the left. This smaller section, therefore, follows the usual system of writing and reading the Bactrian script. But the larger section, commences on the left side, where the smaller section ends, and then runs, from the left to right, round the upper part of the margin, down to where the smaller section commences; and it reads from the inside of the coin. The larger section, therefore, reads from the left to the right, like the Greek. In fact, that section is arranged and reads like a Greek legend, while the smaller legend is arranged and reads like a Bactrian legend, though both sections are written in Bactrian characters. In other respects the legend is the usual one, *viz.* :—

Larger section : *Maharajasa tradatasa*

Smaller ditto : *Avadagaçasa*.

Mr. Bourdillon's specimen gives the whole of the legend, except the letters *vada* of the name; but some of the existing letters are rubbed and mutilated; the five letters *maha*, *ja* and *çasa*, however, are perfectly distinct. On my own specimen of the coin, only a very small portion of the legend is preserved; *viz.*, the letters *maha* and *gaçasa*. This portion, equally distinct on both specimens, forms, as will be understood from the arrangement, above explained, a continuous set of letters, and is made up of the beginning of the larger and the end of the smaller sections. It is quite characteristic, and sufficient to prove how the whole legend must have run, even if it is not actually extant.

Unfortunately there is not sufficient time to prepare photographic facsimiles of these four coins, before my departure on leave. But, I hope, on my return to publish facsimiles in the *Journal*, together with such further information, as may be then forthcoming.

Dr. A. F. Rudolf Hoernle exhibited a number of small fragments of *Ancient Manuscripts from Central Asia*. He said :—

These fragments were received by me about a month ago from the Foreign Office in Simla, to which they had been sent by Mr. G. Macartney, at Kashghar, where he acts as Special Assistant of Chinese affairs to the Resident in Kashmir. The Foreign Office letter stated that these manuscripts had been excavated in Kuchar and presented to Mr. Macartney by the Manager of the Chinese Foreign Commerce at Kashghar.

Unfortunately these fragments are the merest scraps of what was clearly a collection of several manuscripts. They are too small to be of any literary or historical value; but from the palæographic point of view they present some points of interest.

The fragments number several hundreds, and are mostly utterly useless, but there are about a hundred of the size of one to two inches square, which bear connected letters, and are legible.

The material of the fragments are of three different kinds: palm-leaf, birch-bark, and paper. The paper is of several varieties of manufacture.

The number of manuscripts, represented by these fragments, it is difficult to define with certainty. To judge from the varieties of writing and material, however, there must have been not less than eight or nine. There was certainly one manuscript of palm-leaf. There was also certainly one, if not two, of birch-bark; for the writing on the fragments seem to show two different styles of writing. Of paper manuscripts there must have been, at least, five, but probably more; this is shown by the varieties of writing and make of paper.

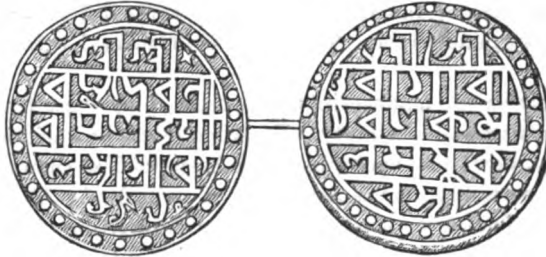
Particularly noticeable is that the palm-leaf and birch-bark fragments show a purely Indian type of writing, of the North-Western Gupta class, similar to that on the Horiuzi palm-leaf MS., and the birch-bark Bower MS. This, indeed, might have been expected from the fact that the material is palm-leaf or birch-bark, which is not obtainable in Central Asia. Manuscripts on these materials must have been prepared and introduced from India. The fact of the occurrence of them in Central Asia may be of considerable chronological value. They exhibit the old form of the tridentate *y*, and the old Gupta form of *m*. The superscript *r* is formed on the top line of writing instead of above it.

The paper manuscripts uniformly exhibit the Central Asian kind of Nāgarī, as shown in the Weber Manuscripts. But they are of considerable variety. Some approach very closely to the pure Indian type, as in Weber MS., Parts I and II (Plate I, Fig. 1, 2; in *Journal, As. Soc., Beng.*, for 1893, pp. 9, 17), others show the purest Central Asian type as in Weber MS., Parts IV to IX (*ibid.*, Pl. II, Fig. 1, 2, 3, Pl. III, Fig. 1-5). In particular, there are a few fragments, which are so strikingly like several leaves of the Weber MSS., as to suggest that they may have belonged to missing leaves of the same manuscripts. The writing that remains on the fragments, however, is too defective to allow of arriving at any more certain conclusion.

A Plate of selected specimens is being prepared by Col. Waterhouse, of the Survey of India, which, I hope to be able to publish, with additional information, in the *Journal* of the Society.

The PHILOLOGICAL SECRETARY exhibited two rare Assam coins forwarded by Mr. E. A. Gait. One is a coin of **Raghu-nārāyaṇa**, the founder of the western branch of the Koch Kings (*vide* J. A. S. B.

lxiii., 292). It is most interesting as being the first specimen of a coin of this branch of the family which has come to light.



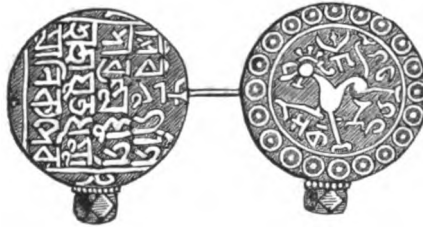
The legend is

*Obverse.*  
 श्री श्री  
 रघुदेवना  
 रायस पा  
 सस्य सके  
 १५१०

*Reverse.*  
 श्री श्री  
 हर-गौरी  
 चरस-कन  
 स-मधक  
 रस्य

The date of the coin (Çak. 1510, corresponds to 1588 A.D. **Raghu-nārāyaṇa's** dates are 1581-1593 A.D. (l. c., p. 305), so that the coin belongs to the 7th year of his reign. The coin was the property of Bābū Tānurām, Mauzādār of Hastināpur Mauzā, in Barpēlā, who has been good enough to present it to the Society.

The second coin is of **Dharma-māṇikya-dēva** of Tippera. A very similar one is published in Marsden's *Numismata Orientalia*, p. 795, No. MCCIX. It has been presented to the Society by Mr. Gait.



The legend is as follows :—

*Obverse.*  
 शिव-दुर्गा-य  
 दा-रज मधुप  
 श्री श्री-युत सके  
 मानिक्य देव

*Reverse.*  
 Figure of Lion to the left.  
 शक १९१९

Çak. 1636 is equivalent to 1714 A.D.

The PHILOLOGICAL SECRETARY read the following note on the Chinese equivalent for Raṅgamāṭī.

In Mr. Beveridge's paper *On the Site of Karṇa Suvarṇa*, read at the meeting of December, 1893,<sup>1</sup> he identified this town, the Kie-la-nasu-fa-la-na of Hiuen Tsiang with the town of Raṅgamāṭī in the Murshidābād district. In the course of his article, Mr. Beveridge quoted Hiuen Tsiang as follows—"By the side of the capital there rises the monastery called Lo-to-wei-chi-seng-kia-lan," which last word is, according to M. Julien, the phonetic equivalent of the Raktaviti Saṅghārāma, which again Mr. Beveridge argues is the same as Raṅgamāṭī. Lo-to-wei-chi, means, in Chinese, 'red earth,' and cliffs or bluffs of red clay form a prominent feature in the scenery of Raṅgamāṭī. He suggests that instead of Raktaviti, the Sanskrit equivalent should be Rāgamṛttikā, or Raktamṛttikā, the latter portion of the compound, *mṛttika* being the equivalent of the Chinese *wei-chi*. He further points out that in Hiuen Tsiang's life, the word is Ki-to-mo-chi, instead of the Lo-to-wei-chi of the travels, and suggests that this difference of reading may lead to a settlement of the question. *Mo-chi* may be right, and may be the equivalent of *mṛtti*.

Some time ago, I had the fortunate opportunity of submitting the point for the opinion of M. Sylvania Lévi, perhaps the only person in the world capable of deciding it, for he is equally competent a scholar of Sanskrit and of Chinese. He very kindly writes as follows,—

'The difference between the two words *Ki-to-mo-chi*, of the Life, and *Lo-to-wei-chi*, of the *Si-yu-ki*, is simply due to the confusion of two graphic signs nearly identical. The syllable *Lo* (𠄎<sub>p</sub>) of the *Si-yu-ki* very closely resembles the character *Ki* (𠄎<sub>p</sub>) of the Life, the only difference being that the character which surmounts the (p), is (𠄎) in one case, and (△) in the other. Similarly with regard to the character *wei* (𠄎) which only differs in the arrangement of its two horizontal lines from the character *mo* (𠄎). In the former, the shorter line is written above the longer, and in the latter, the reverse is the case.'

'The reading *Lo* is the more probable, for Julien, in his *Méthode*, cites no example of the character *Ki* occurring in the transcription of Sanskrit names, nor have I ever met an instance. On the other hand, for the same reason, the character *mo* is more probable than *wei*. The regular transcription of *Lo-to-mo-chi* would be a Prakrit from *Rattamāṭī*[*kā*], the equivalent of the Sanskrit *Rakta-mṛttikā* which corresponds to the meaning "Red clay" given to the convent by the Pilgrim.'

<sup>1</sup> Journal, Vol. LXII. Pt. I for 1893. pp. 315 and ff.

This settles the question, and we are all much indebted to M. Sylvain Lévi, for his very interesting communication.

Dr. G. A. Grierson, Honorary Philological Secretary, read the following note on an early supposed Bangāli version of the Lord's Prayer.

At the meeting of the Society held in April 1893, I had the honour of reading a paper on the *Early Study of Indian Vernaculars in Europe*.<sup>1</sup> It was fortunate enough to attract the attention of other scholars, some of whom have made valuable additions to our knowledge of the subject. Amongst these latter may be mentioned a paper read last January before the Reale Accademia dei Lincei of Rome, by Signor Emilio Teza, entitled, *Dei primi Studi sulle Lingue indostaniche alle note di G. A. Grierson*. Signor Teza has brought the following interesting facts to light.

In my paper I drew attention to a work of Fritz published in 1748, entitled the *Orientalisch-und-occidentalisch Sprachmeister*, which contained amongst other things two hundred translations of the Lord's Prayer in different languages. Regarding the Bangāli version given in that work, I said<sup>2</sup> :—

The Bangāli translation, which is taken from Wilkins' sample given in Chamberlayne's *Sylloge*, is almost worth reprinting as a curiosity for the number of seemingly impossible mistakes it contains. In fact it is quite illegible and unintelligible to every native of Bengal to whom I have shown it. It has evidently been made by some person who got a copy of the alphabet, and a general description of the language, and then 'greatly dared.' Even his knowledge of the alphabet is incomplete.

Signor Teza is the fortunate possessor of a copy of Chamberlayne's *Sylloge*, from which Fritz copied his Bangāli version, and Wilkins' confession in the Latin Preface to that work clears up the mystery. He says that as he had not been able to obtain a copy of the Lord's Prayer in Bangāli, he had taken a Malay version, and written it in Bangāli characters. The transliteration given by Wilkins of this curiosity is as follows :—

Bappa kita, jang adda de surga,  
 Namma-mou jadi bersakti,  
 Radjat-mou mendarang,  
 Kandhatimou menjadi de bumi sepertj de surga,  
 Roti kita derri sa hari-hari membrikan kita sa hari inila,  
 Makka ber-ampunla padakita doosa kita, seperti kitá ber-ampun-akan siapa bersala kapada kita,  
 D'jang-an hentar kita kapada tjobahan,  
 Tempa lepaskan kita dari jang d'jakat :

<sup>1</sup> See *Journal*, Part I. for 1893, p. 41.

<sup>2</sup> L. c., p. 48.

Karna mou pun'ja radjat daan kauwassahan daan ber-bessaran sampey kakakal. Amin.

It appears according to Signor Teza, that the above is actually Malay.

The version in so-called Bangāli characters, of which the above is Wilkins' transcription is now worth reprinting,—for as a matter of fact only a few of the characters are Bangāli, and those few are wrongly used. Thus *de* is written *et* instead of *et*. It is either an absolute invention of Wilkins, which is not probable, or it is some hybrid character used by Malay Sailors in their intercourse with Bengal. Wilkins was under the impression that, at the time when he wrote (1715 A.D.), Bangāli was disappearing as a language, its place being taken by Malay.

**বহুমান তেঁনি ঈসু আখ্যান পুর কুরআনঃ**  
 কহানন মুল ঈনি বহুমানতঃঃ  
 বহুমান মুল বহুমানতঃঃ  
**তহুমানতঃঃ মুল বহুমানতঃঃ মুল কুরআনঃঃ**  
**কুরআন তহুমানতঃঃ মুল কুরআনতঃঃ বহুমানতঃঃ তহুমানতঃঃ**  
**কুরআনতঃঃ**  
**মহুমানতঃঃ বহুমানতঃঃ বহুমানতঃঃ তহুমানতঃঃ মুল কুরআনতঃঃ**  
**তহুমানতঃঃ বহুমানতঃঃ বহুমানতঃঃ মুল কুরআনতঃঃ**  
**মুল কুরআনতঃঃ বহুমানতঃঃ তহুমানতঃঃ মুল কুরআনতঃঃ**  
**বহুমানতঃঃ মুল কুরআনতঃঃ বহুমানতঃঃ মুল কুরআনতঃঃ**  
**মুল কুরআনতঃঃ বহুমানতঃঃ মুল কুরআনতঃঃ**  
**বহুমানতঃঃ**

Another correction has been made by Signor Teza, to which I take this opportunity of drawing attention. In my article <sup>1</sup> I mentioned that the first grammar of Hindustāni was that of Schultz, published in 1745, a work which I had not had the good fortune to see. Signor Teza is the fortunate possessor of a copy of this work, which appeared in Halle in 1744 (not 1745). Schultz, in his preface, mentions a still earlier grammar. In 1743 there appeared the *Miscellanea Orientalia* of David

<sup>1</sup> L. c., p. 47.



Millius, in which was inserted a grammar of the Hindūstānī language composed by John Joshua Ketelaer, for some time Ambassador of the Dutch East India Company, to the Great Mogol, at Agra. Ketelaer's Hindūstānī version of the Lord's Prayer is given by Signor Teza and will bear reprinting as a curiosity. It runs—

*Hammare baab—Ke who asmaanmehe—Paak hoeé teere naom—Auwe hamko moluk teera—Hoé resja teera—Sjon asmaan ton sjimienme—Rootie hammare nethi hamkon aasde—Oor maafkaar taxier apne hamko—Sjon majkarte apre karresdaar onkon—Nedaal hamko is was wasjeme—Balk hamko ghaskar is boerayse. Teeræ he patsjayi, soorrauri alemgiere heametme. Ammen.*

I owe to the courtesy of Mr. W. Irvine, the following information about Ketelaer. He was accredited to *Shāh 'Ālam Bahādur Shāh* (1708–1712) and *Jahāndār Shāh* (1712). In 1711 he was the Dutch Company's Director of Trade at Surat. He passed through Agra both going to and coming from Lahore (*via* Delhi), but there does not seem to be any evidence available that he ever *lived* there, though the Dutch Company had a factory in that city subordinate to Surat. The Mission arrived near Lahore on the 10th December 1711, returned to Delhi with *Jahāndār Shāh*, and finally started from that place on the 14th October 1712, reaching Agra on the 20th October. From Agra they returned to Surat. A detailed account of the Embassy, taken from a diary kept by one Ernst Coenraad Graaf, first sworn clerk to the Embassy, will be found in F. Valentijn's *Oud en Nieuw Oost Indien*, Vol. IV. (Ed. 1726), pp. 282–302. Some further particulars concerning Ketelaer will be found in *Ost Indien und Per-sianische Reisen, von Johann Gottlieb Worms, Aus Döbeln . . . . . , oder . . . . . , aus Licht gestellt durch M. Crispinum Weisen Past. Zu. Mochau*, 1st Ed. Dresden 1737; 2nd Ed. Leipzig 1745, 8vo. From this<sup>1</sup> we learn that Ketelaer was also called *Kötelär*, *Kessler*, or *Kettler*, and that he was a Lutheran born at Elbingen in Prussia. In 1716 he had been three years Director for the Dutch Company at Surat. He was then appointed their envoy to Persia and left Batavia in July 1716, having been 30 years in the Dutch Service, or in the East Indies. He was a heavy corpulent man, and died of fever at Gambroon on the Persian Gulf on his return from Isfahān, after having been two days under arrest, because he would not order a Dutch ship to act under the Persian Governor's orders against some Arab invaders.

I take this opportunity of drawing attention to some early works on Indian languages which have come to my notice since I wrote

<sup>1</sup> Second Ed., pp. 22, 247, 248, 303.

my article. Father Heinrich Roth, S. J., attached to the Goa Mission<sup>1</sup> journeyed from Goa to Agra about 1650-1660. About 1665 he returned to Rome, and drew up for Athanasius Kircher, S. J., five plates for the latter's *China Illustrata* (published at Amsterdam in 1667). The first four of these plates contain the alphabet and elements (in the Dēvanāgarī character) of Sanskrit, explained in Latin, and the fifth Our Lord's Prayer and an Ave Maria in Sanskrit and Latin, to serve as an exercise for beginners. According to Constable, these are the first specimens of Sanskrit ever printed or engraved (as for a book) in Europe, or indeed anywhere.

Abraham Roger was the first Dutch Chaplain (1631-1641)<sup>2</sup> at Pulicat. He died at Gouda in Holland in 1649. In 1670, his widow published a work by him, entitled, '*La Porte ouverte, pour parvenir à la Connaissance du Paganisme caché.*'<sup>3</sup> On pp. 29 & ff. of this book there is printed a Dutch translation of Bhartṛhari's *Çatakas* made by a Brāhman named Padmanābha the first translation from Sanskrit published in any European language.

Finally I may refer the reader to the Hindūstānī translation of the Acts of the Apostles, dated 1748, to which attention was drawn by Mr. W. Irvine in the *Proceedings* of the Society for Decr. 1893, pp. 174 & ff.

The following papers were read :—

1. *On the Dōgām Mint.*—By SURGEON-CAPTAIN W. VOST, *Indian Medical Service.*

The paper will be published in the *Journal*, Part I.

2. *On Polarisation of Electric Ray by Double Refracting Crystals.*—By PROFESSOR J. C. BOSE, B.A. (CANTAB), B. SC. (LOND.).

(Abstract).

The following investigations were undertaken by the author to find out natural substances which would polarise the Electric Ray. In the present paper the author gives an account of the polarising action of certain crystals on the transmitted ray.

The apparatus used consisted of an Electric Radiation emitting Electro-magnetic Radiation of short wave length, a Polariser, an Analyser and a Receiver responding to incident radiation.

The Polariser and Analyser are adjusted in a crossed position, and

<sup>1</sup> See Constable's Edition of Bernier's travels, pp. 329 n., 332 n.

<sup>2</sup> Constable's Bernier, p. 334 n. Preface to Bohlen's Bhartṛhari, p. xii. and elsewhere.

<sup>3</sup> Amsterdam, Jean Schipper, 1670.

the crystal to be examined is then interposed. In certain positions the crystal brightens the dark field.

Crystals belonging to the Tetragonal, Hexagonal, Rhombic, Monoclinic and Triclinic systems were found to polarise the Electric Ray.

The effect produced by the following crystals were especially marked:—Beryl, Apatite, Brucite, Barite, Microcline.

A detailed account of the apparatus used and the results obtained will be published in the *Journal*.

The paper will be published, in full, in the *Journal*, Part II.

3. *Materials for a Carcinological Fauna of India, No. 1. The Brachyura Oxyrhyncha.*—By A. ALCOCK, M. B., C. M. Z. S., Superintendent of the Indian Museum.

The paper will be published in the *Journal*, Part II.

## LIBRARY.

The following additions have been made to the Library since the Meeting held in April last:—

### TRANSACTIONS, PROCEEDINGS, AND JOURNALS,

*presented by the respective Societies and Editors.*

- Baltimore. Johns Hopkins University, — Circulars, Vol. XIV, No. 117.
- Batavia. Bataviaasch Genootschap van Kunsten en Wetenschappen, — Notulen, Deel XXXII, Nr. 4.
- . ———. Tijdschrift voor Indische Taal-, Land-en Volkenkunde, Deel XXXVIII, Nr. 4.
- Berlin. Der Gesellschaft Naturforschender Freunde zu Berlin, — Sitzungs-berichte, Jahrgang, 1894.
- Bombay. The Indian Antiquary, — Vol. XXIV, Part 298.
- Bordeaux. Société Linnéenne de Bordeaux — Catalogue de la Bibliothèque, Fascicule 1 .
- Calcutta. Geological Survey of India, — Records, Vol. XXVIII, Part 1.
- . Indian Engineering, — Vol. XVII, Nos. 14-17; and Index to Vol. XVI.
- . Maha-bodhi Society, — Journal, Vol. III, No. 12.
- . The Medical Reporter — Vol. V, Nos. 7 and 8.
- . Microscopical Society of Calcutta, — Bulletin. Vol. IV, Nos. 2-4.
- . Photographic Society of India, — Journal, Vol. VIII, No. 4.

- Dresden. Gesellschaft Iris zu Dresden,—Deutsche Entomologische Zeitschrift, Band VII, Heft 1 und 2.
- Florence. Società Africana d'Italia,—Bullettino, Tome II (2<sup>e</sup> série), Fascicolo 5<sup>o</sup> 8<sup>o</sup>.
- The Hague. Koninklijk Instituut voor de Taal-, Land-en Volkenkunde van Nederlandsch-Indië,—Bijdragen tot de Taal-, Land-en Volkenkunde van Nederlandsch-Indië, 6<sup>e</sup> Volgr, Deel I, Nr. 1.
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———. Verhandlungen, 1894.
- Havre. Société de Géographie Commerciale du Havre,—Bulletin, Janvier-Février, 1895.
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- London. The Academy,—Nos. 1194-97.  
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———. Institution of Electrical Engineers,—List of Officers and Members corrected to January 31st, 1895.  
———. Nature,—Vol. LI, Nos. 1325-28.  
———. Royal Astronomical Society,—Monthly Notices, Vol. LV, No. 5.  
———. Royal Geographical Society,—Geographical Journal, Vol. V, No. 4.  
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———. Transactions, Vol. XIII, Part 10.
- Manchester. Manchester Literary and Philosophical Society,—Memoirs and Proceedings, Vol. IX (4th Series), No. 2.
- Moscow. La Société Impériale des Naturalistes de Moscou,—Bulletin, No. 4, 1894.
- Paris. Museum d'Histoire Naturelle,—Bulletin, Nos. 1 et 2, 1895.  
———. Société de Géographie,—Comptes Rendus des Séances, Nos. 5 et 6, 1895.  
———. Société Philomathique de Paris,—Bulletin, Tome VI (8<sup>e</sup> Série), Nos. 3 et 4.  
———. Comptes Rendus Sommaire des Séances, Nos. 10 et 11, 1895.
- Rome. Società Degli Spettroscopisti Italiani,—Memorie, Tome XXIV, No. 2.
- St. Petersburg. Der Russisch-Kaiserlichen Mineralogischen Gesellschaft zu St. Petersburg,—Verhandlungen, Band XXXI.
- Sydney. Linnean Society of New South Wales,—Proceedings, Vol. IX, Parts 3 and 4.

- Taiping. Perak Government,—Gazette, Vol. VIII, Nos. 8 and 9.  
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 Nrn. 1-3, 1895.  
 ———. Der K. K. Zoologisch-botanischen Gesellschaft in Wien,  
 —Verhandlungen, Band XLV, Heft 2 und 3.  
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 schrift, Jahrg XL, Heft 1.

## BOOKS AND PAMPHLETS,

*presented by the Authors, Translators, &c.*

- HAFKINE, W. M. Anti-Choleraic Inoculations in India. 8vo. Calcutta,  
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 ———. Sur la morphologie du squelette des segments post-thoraciques  
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 ———. L'Arte Degli Scrittori presso ai Buddiani. 8vo. Padova,  
 1893.  
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CALCUTTA SANSKRIT COLLEGE.

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KUBZ, S. Forest Flora of British Burma, Vols. I-II. 8vo. Calcutta, 1877.

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**PROCEEDINGS**  
OF THE  
**ASIATIC SOCIETY OF BENGAL,**  
FOR JUNE, 1895.

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The Monthly General Meeting of the Asiatic Society of Bengal, was held on Wednesday, the 5th June, 1895, at 9-15 P.M.

DR. G. A. GRIERSON, C.I.E., in the chair.

The following members were present:—

Dr. A. Alcock, Dr. R. Anderson, A. Caspersz, Esq., F. Finn, Esq., A. Hogg, Esq., The Rev. H. B. Hyde, Surgeon-Lient.-Col. G. Ranking.

The minutes of the last meeting were read and confirmed.

Twenty-nine presentations were announced, details of which are given in the Library List appended.

The following gentlemen proposed by the Council at the last meeting were balloted for and elected Honorary members:—

General R. Strachey.

The Right Honorable Lord Rayleigh.

C. H. Tawney, Esq.

Prof. Hofrath Georg Bühler.

The following gentlemen are candidates for election at the next meeting:—

N. D. Beatson-Bell, Esq., I.C.S., Comillah, proposed by Dr. G. A. Grierson, seconded by Surgeon-Lient.-Col. G. Ranking.

N. Bonham-Carter, Esq., I.C.S., Calcutta, proposed by Dr. G. A. Grierson, seconded by Dr. A. Alcock.

H. D. Carey, Esq., I.C.S., Serajganj, proposed by Dr. G. A. Grierson, seconded by Surgeon-Lient.-Col. G. Ranking.



R. W. Carlyle, Esq., I.C.S., Comillah, proposed by Dr. G. A. Grierson, seconded by Surgeon-Lieut.-Col. G. Ranking.

J. G. Cumming, Esq., I.C.S., Comillah, proposed by Dr. G. A. Grierson, seconded by Surgeon-Lieut.-Col. G. Ranking.

J. G. Monohan, Esq., I.C.S., Sibsagar, proposed by Dr. G. A. Grierson, seconded by Surgeon-Lieut.-Col. G. Ranking.

C. E. A. W. Oldham, Esq., I.C.S., Calcutta, proposed by C. L. Griesbach, Esq., seconded by Dr. G. A. Grierson.

A. F. Steinberg, Esq., I.C.S., Rangpur, proposed by Dr. G. A. Grierson, seconded by Surgeon-Lieut.-Col. G. Ranking.

P. J. Melitus, Esq., I.C.S., Shillong, proposed by Dr. G. A. Grierson, seconded by Surgeon-Lieut.-Col. G. Ranking.

Surgeon-Major L. A. Waddell (for Re-election), proposed by Dr. G. A. Grierson, seconded by Surgeon-Lieut.-Col. G. Ranking.

The following gentleman has expressed a wish to withdraw from the Society:—

P. Sundaram Pillay, Esq.

The Secretary reported the death of the following member:—

The Rev. D. G. Latham-Browne.

The Chairman announced that Mr. Frank Finn had been appointed to officiate as Natural History and Anthropological Secretaries of the Society; and Surgeon-Lieut.-Col. G. S. A. Ranking as General Secretary.

The following note by Mr. E. A. Gait on Historical Research in Assam is republished in the Proceedings, for the information of members of the Society.

By Order of Council,

G. A. GRIERSON,

*Hon. Phil. Secretary.*

### Historical Research in Assam.

The sources of information regarding the past history of Assam may be classed under the following heads:

(1) Information recorded at the time on coins and inscriptions on temples, rocks, &c.

(2) Historical documents drawn up at or about the period to which they relate.

(3) *Quasi-historical puthis* written long after the events with which they deal.

(4) Stray historical references in religious works.

(5) Traditions unwritten, but still current amongst the people.

I will deal with each of these sources of information separately.

Coins.

2 We know the coins of the following dynasties :

(a) Āhōm kings.

(b) Koch „

(c) Kings of Jaintia.

(d) „ „ Manipur.

(e) Kings of Tippera.

In the *Vaṃṣāvali* of Lakṣmī Nārāyaṇ, it is stated that the king of Khairam had a mint, but no coins of his have yet come to light. It is not improbable that the Khyen kings, who preceded the Koch, also coined money, but here again we have at present no definite knowledge; nor do we know anything about the coinage of the kings of Cachar.

3. The Āhōm coins, which are octagonal in shape, are of two classes: those inscribed with the old Āhōm character, and those on which the characters are a kind of modern Nāgarī. Coins of the second class are well known; many of them have been described by Marsden, and large numbers can still be obtained. In regard to them, all that seems to be needed is to catalogue all known coins with their inscriptions and dates, and to examine as many private collections as possible and describe all not already mentioned in Marsden or other numismatical works. The other class of coins, on the other hand, requires a good deal more attention. Until recently, when some *deodhais* deciphered one for me, none of these coins had been read. The Asiatic Society of Bengal now propose to send up all the coins of this class in their collection for examination and decipherment, but I do not yet know how many they have got. Moreover, as they have been collected without reference to their (unknown) mintage, it is doubtful how far they are representative of the different monarchs in whose reigns such coins were struck. After we have obtained readings of the Asiatic Society's coins, I think we should at once institute a search for the coins of any kings not found in the Society's collection. Of the two coins of which I have obtained

\* The reading of this coin has been sent to the Society.

readings, one relates to Chuklenmung\* (1539 A.D.—1552 A.D.), and the other to Chupātpbhā, *alias* Gadādhār Simha

(1681—1695 A.D.). The latter must be one of the last coins struck in

the old character, as in the reign of the next king, Rudra Simha,\* we have many coins struck in the Nāgarī character. The former may or may not be one of the earliest: in the *buranji* of Kāṇi Nāth Tāmuli Phukan the coinage of the Āhōms is said to have commenced two reigns later, in the days of Chuchengpha, who came to the throne in 1611 A.D., and is attributed to the civilising influence of Sundar Gosāin and others who had been taken to the Koch capital as hostages by Silārāi, and who were released and returned home during Chuchengpha's reign. Even if the first coinage was in Chuklenmung's reign, we have still fourteen rulers in the period during which the first class of coins was minted.

\* Although it was not until the reign of his son that the Āhōm kings became regular Hindus, it was Rudra Simha who took the first step in this direction by importing Kṛṣṇa Rām Bhattācārjī, a Čakta Gosāin, from Nadia. The adoption of the Hindu character on the coins seems thus to have been one of the outward and visible signs of the growing influence of Hinduism.

4. The coins of the Koch kings are not so well known, and every effort should, I think, be made to add to the number which have been described up to date. In marked contrast to the number of Āhōm coins in his collection, Marsden describes only two Koch coins, one of Lakṣmi Nārāyaṇ, dated 1549 *Sak*, and one of Prāṇ Nārāyaṇ, dated 1555 *Sak*.† In the addition to these, we have a coin of Nar Nārāyaṇ, dated 1477 *Sak*, which was found in the Gārō Hills., and was described in the *Journal* of the Asiatic Society of Bengal for 1875, and another of Lakṣmi Nārāyaṇ, dated 1509 *Sak*, which was obtained for me by Babu M. C. Bardalai.‡ The same Babu also procured for me two smaller coins of this dynasty,§ but the names of the kings is not very clear on these. Marsden printed a similar small coin (MCCXVIII) under the head "Uncertain."

† Marsden reads the dates as 1649 and 1666, but Dr. Hoernle agrees with me that the symbol reads as 6 is really a 5 when used in the coins of the Āhōm, Koch, and Tippera kings.

‡ See *Proceedings, Asiatic Society of Bengal*, August 1893.

The above meagre collections, so far as I know, constitutes all that we know of the Koch kings' coinage. We should, I think, do all that we can to add to it, as the matter is one not merely of numismatic interest, but is also of importance as helping us to fix the otherwise rather uncertain dates of some of the kings of this dynasty. That a systematic search would add to the number of known coins is shown by the fact that the three coins procured for me by Babu M. C. Bardalai were obtained by him after a very short enquiry.<sup>1</sup>

<sup>1</sup> [Since the above was written two valuable papers on Kōch and Āhōm coins have been received from Mr. Gait, and will duly appear in the *Journal* of the Society. Ed.]

5. A search for Jaintia coins would apparently be less fruitful, as all which I have yet seen (save those of the last ruler) bear the same inscription, *viz.*, “*Çri Çri Jāyantapur Purandarasya.*” No king is mentioned on these coins. The dates of the coins which I have seen are 1630, 1653, 1696, and 1704 *Sak.*

6. I know very little of the Manipur coins, which were square in shape. Perhaps the Political Agent might be able to make a collection. As regards Tippera coins, it may be observed that these do not directly concern us. They are, however, indirectly of interest as confirming or contradicting the dates given in the *Rājmaḷa*, or Chronicles of the Kings of Tippera, in which some references are made to the rulers of Cachar or Hiramba, and as relating to a race which we know to be closely allied to our Kachāris, Morāns, &c., and a country which the chronicles of the Mungkong Shāns mention as having been conquered by a section of that race many hundred years ago.

I may mention here that it seems highly probable that many finds of coins occur, which are never reported. Last year, I addressed the Agent and Chief Engineer, Assam-Bengal Railway, on the subject, and, after adverting to the provisions of the Treasure Trove Act, drew attention to the great importance of securing the examination by competent authority of all coins found. A circular was issued by the Agent on the subject, but from what I have since heard, it seems doubtful whether very great attention has been paid to it.

7. The next source of information are inscriptions. These again may be classified as—

- (a) inscriptions on copper plates;
- (b) inscriptions on temples built by Koch kings;
- (c) inscriptions on temples built by the Āhōms;
- (d) other inscriptions.

8. Of the copper plates yet discovered, the most important are those of Vanamāla\* and Kumāra Pāla, † which tell us something of old rulers in the Brahmaputra Valley; and the two discovered some years ago in Sylhet, which tell of the ancestors of Gaur Gobind, the Hindu king who was defeated by Shah Jalāl. ‡

Other plates contain land grants by Āhōm kings, and are of use for the same purpose as the inscriptions on temples built by the Āhōms, to which reference will be made below.

\* *Journal of the Asiatic Society of Bengal*, IX, page 766.

† Supplement to *Panḍit* for February, 1893.

‡ *Proceedings*, Asiatic Society of Bengal, 1880, page 141. These plates were brought to notice by Mr. Luttmann-Johnson, who was at that time Deputy Commissioner, Sylhet.

I am told that there are in existence copper plates of land grants by the kings of Jaintia. These would

\* The search for old inscriptions which was instituted in Colonel Keatinge's time seems to have been less thorough in Sylhet than elsewhere, and more is, therefore, to be hoped for from further enquiries now.

be of greater value than those of the Āhōms, as Jaintia is one of the old kingdoms of which our knowledge is at present most fragmentary. It is not improbable that other local rulers in the Surma Valley made grants of land on

copper plates; and it would probably bring some useful information to light if a systematic enquiry were instituted in that district into the origin of the *lākhirāj* grants there. The proceedings under the old Resumption Regulation of 1819 would probably show where further enquiry would be useful.\*

A few older plates may also from time to time come to light; but their discovery must apparently be a matter of chance rather than of systematic enquiry.

9. Two useful inscriptions on temples built by Koch kings are

† See my paper on the Koch Kings of Kāmarūpa, *Journal of the Asiatic Society of Bengal*, 1893, page 295.

known, *viz.*, those at Hājō and Kāmākhyā; † others may perhaps be included amongst the inscriptions noticed below as not yet deciphered.

10. There are numerous inscriptions on temples erected under Āhōm auspices. All of these bear dates of the reign of Rudra Simha (1695-1714 A.D.) and subsequent kings, and are of use chiefly in checking the dates given in the *buranjis*, and in showing the extent of country ruled by the princes in question, and the degree to which they were dominated by Hindu influences. Most of the inscriptions of this class were copied under Colonel Keatinge's auspices, and all that remains to be done is to collate these copies and see what additions to our existing knowledge of Āhōm history and chronology can be derived from them.

11. Amongst "Other inscriptions" may be mentioned two on rocks on the bank of the Brahmaputra near Tezpur, which have never yet attracted the attention which they seem to deserve, a deciphered inscription at Khāspur and another undeciphered at Maibong, and two inscriptions which were said to be undecipherable in the enquiries made in Colonel Keatinge's time, *viz.*, one on the door of the Siddhēvara temple in Sarubangsar mauza in Kāmārūp, and another on the temple of Chaṇḍikā in the same district. No doubt further search would bring other inscriptions to light; I think that ruined palaces, such as that of Bhishmaka near Sadiya, of Hārmāti in North Lakhimpur and of Bhāluka at Bhālukupung, and the old Kachārī capitals at Dimāpur, Maibong,

and Khāspur, &c., might be more carefully examined than they have yet been, and that ruined temples, such as the one on the hill at Silghāt, might also receive some attention. We have not yet, I think, given to these ruins the attention which they deserve.

12. Excluding the State archives in Manipur, the only historical documents which I am acquainted with are those of the *deodhais* of Sibsāgar. There

Historical documents.

\* The Gōramur Gosāin told me last cold weather that he had a *buranji* which was taken away by Mr. Stack for examination, and was never returned to him.

may be a few with the Gosāins of the Mājuli,\* and the high families of State are also said to have kept private *buranjis*, some of which are doubtless still in existence. The *deodhais'* *buranjis* were examined by Kāçi Nāth Tāmuli Phukan in connection with the *Āsām Buranji* compiled by him. My proposals for their transcription and translation will be found further on.

13. Of the works of a *quasi*-historical nature, the most important by far is the *Vamçāvali* of Rājā Lakṣmī

Quasi-historical writings.

Nārāyaṇ, which contributed a large portion of the matter contained in my paper on the Koch Kings. Rājā Prasiddha Nārāyaṇ has also a *Vamçāvali*, which, however, is much more brief and less reliable. Neither of these were written at the time, but both were composed while kings of the Koch dynasty were on the throne, when the events which transpired in early reigns may be thought to have been still fresh in the minds of the people.

There are doubtless other similar works, but my knowledge of them is limited. The Kumāra Harāṇa, which deals with the conflict between Kṛṣṇa and Bān Rājā, is almost, if not quite, mythical, and the incident is taken almost in its entirety from the Bhāgavata Purāṇa. The interest attaching to this work lies chiefly in the peculiar old Assamese in which it is written (*e. g.*, ভইল instead of হল, &c.), and it is of no great value for our present purpose. It has, however, been printed (long ago) in *puthi* form, and it would be as well to acquire a copy if this could be done for a reasonable price. A more interesting work is that known as "Arimatta's *puthi*," in which Sankar Deb is supposed to recite to the Koch King Nar Nārāyaṇ, the history of ancient rulers in the province, including that of Arimatta and of the Bāro Bhuiyās.

I saw a copy on paper of this *puthi* recently, but am told that there is a very much more ancient copy on *sāci* bark in the possession of Sis-huram Mauzadār of Bangfang in North Lakhimpur.

Enquiries might be made with advantage with a view to finding out what other *puthis* are in existence. It is quite possible that there may

be *Vaniçāvalis* in the possession of the Rājās of Beltōlā, Dimuria, Rāni, and Luki, and that much historical information might be obtained from the records of the Barpeta *sattra* and the *sattra* of Upper Assam.

Some of the old Musalman families of Sylhet may have records which would help us to learn something of the history of that district during Muhammadan rule.

14. Of historical references in religious writings, there are two kinds. First, there are the old traditions of the *Yōgīni Tantra*, the *Viṣṇu Purāṇa*, and similar works; and secondly, there are the writings of the religious revival inaugurated by Sankar Deb, such as the *Guru Caritra* and *Saṅkar Dēbar Jiban-caritra*. To the former kind we are indebted for most of what is known of the country prior to the Khyen kings, while from the latter we learn about the advent of the Bārō Bhuiyās, and gather sundry contemporaneous references to Musalman invasions, &c. Some of these works have been printed.

15. Lastly, we come to the still unwritten traditions of the people. It is doubtful how far these will serve our purpose, but there is no doubt that they will sometimes be of use. Thus, I have been given a list of 21 Jaintia kings, whose names have been handed down by tradition. Of these, the 7th and 8th are mentioned in the *Āsām Buranji* as father and son, and as having reigned sometime between 1611 and 1649 A.D.; and the 15th as having reigned sometime between 1695 and 1714 A.D.; the 20th, we know, died in 1832. So far, therefore, as can be judged from these outside references, the traditional names and order of reigning of the Jaintia kings may be relied upon as correct.

The Chutiyas similarly may have some traditions which would help us. We know from Āhōm sources that their *deoris* were worshipping at the copper temple at Sadiya 400 years ago, and it would be strange if they could not tell us something of the time when their own rājās ruled the country prior to their subjugation by the Āhōms.

16. I have detailed above the different sources of information from which, so far as I can see, we are likely to be able to collect information regarding the ancient history of Assam.

The action which we should now proceed to take is noted below:

*Coins—*

- (1) Old Āhōm coins to be read, and a search to be made for the coins of kings not yet collected.

- (2) A complete catalogue to be made of later Āhōm coins, and any new ones not in the list thus made to be acquired.
- (3) A thorough search to be made for coins of the Koch kings and earlier dynasties, if any such can be found.
- (4) A collection and description of Manipuri coins to be undertaken under the auspices of the Political Agent, Manipur.

*Inscriptions—*

- (5) A search to be made for copper plate grants by Jaintia and other Sylhet rulers.
- (6) Āhōm land grant plates to be collated.
- (7) Āhōm temple inscriptions to be collated.
- (8) Inscriptions on rocks at Tezpur, on the Siddhēçvara and Chaṇḍikā temples, and at Maibong to be photographed, and rubbings of the same to be taken and sent to some competent scholar for decipherment.

*Historical documents—*

- (9) The Manipur State records to be copied and translated. [This work might perhaps be undertaken under the supervision of the Superintendent of the State.]
- (10) The Āhōm historical *puthis* to be copied and translated.
- (11) A thorough search to be made for other historical documents.

*Quasi-historical writings—*

- \* I already have a rough translation. (12) *Vaṃçāvali* of Lakṣmi Nārāyaṇ to be copied and translated.\*
- (13) *Vaṃçāvali* of Prasiddha Nārāyaṇ to be copied and translated.
- (14) Arimatta's *puthi* to be copied and translated.
- (15) A copy of the *Kumāra-haraṇa* to be purchased, if available.
- (16) A search to be made for other similar documents, and a catalogue of those found to be made in the same form as that adopted in Bengal by the Asiatic Society.

*Religious Works—*

- (17) Copies to be purchased of all old Assamese religious works which have been printed.
- (18) A search to be made in the libraries of the *sattras* with a view to ascertaining if they contain any historical matter.

*Traditions—*

- (19) Traditions to be recorded whenever heard of.
17. Of the above, it seems to me that action is most urgently called for in regard to the decipherment of coins in the old Āhōm character, and the copying and translation of the Āhōm historical *puthis*.



The knowledge of the *Āhōm* language is disappearing very rapidly, and the number of *deodhais*, who still preserve a respectable knowledge of their ancestral language, is extremely small, certainly less than a dozen all told. Even these say that it is so long since they made any study of the subject that they are forgetting what they were taught in their younger days, and the rising generation decline to concern themselves with a language which can yield them no practical advantages. They prefer instead to learn to read and write Assamese, and thereby to qualify themselves for mandalships and other similar appointments.

Consequently, it is even now difficult to obtain a correct reading of the coins in the *Āhōm* character, and to secure a satisfactory translation of the more difficult passages in the *puthis*. It seems to me, therefore, that an intelligent person should be entertained at once to learn the *Āhōm* language and character, and to supervise the reading of coins and the copying and translation of the *Āhōm* historical *puthis*. If he worked hard, three or four months should suffice to enable him to learn enough of the language to see that the *puthis* are correctly copied, and that the translations given are fairly reasonable.

If, however, this proposal is approved of, it seems to me that it would be in every way desirable to take the opportunity to obtain copies and translations of all the more important *puthis*, and not merely of those which are exclusively historical in their purport.

18. I recently made some enquiries at Sibsāgar regarding *Āhōm puthis*, and annex a list of twenty-eight, which have been catalogued by Babu Phanidhar Chaliha, Sub-Deputy Col-

Other Inquiries.

lector. The list is admittedly incomplete, even for the extant records of the *deodhais* of Sibsāgar sadr, and there must be many more *puthis* in existence not only there, but also in Jorhāt. The people are afraid that Government has some ulterior object in trying to find out about these books, and more than one man who is known to possess old *puthis* has denied being the owner of any. Then, again, the Bailongs also possess *puthis*, but these, I take it, deal chiefly with divination and kindred subjects.

Turning to the *puthis* already registered by Babu Phanidhar Chaliha, it will be seen that the list includes only three *buranjis*, viz.,—

(1) From Khunlung and Khunlai to Kamalēçvar, i.e., from 568—1795 A.D.

(2) Chukapha, i.e., invasion of Assam.

(3) From Gadādhar to Gaurināth, i.e., 1681 to 1780 A.D.

I feel sure, however that more will be discovered after further

search, and in any case, those three would in themselves furnish a sufficient reason for employing some one to learn the language and furnish us with an account of what they contain.

Next to the historical *buranjis*, the *puthis* of which it would, in my opinion, be most desirable to obtain translations are those of a religious nature, as from these we should, for the first time, be able to gather some idea of the form of Hinduism which was carried from India to the Shān states before the rise of Buddhism, or, at any rate, of the extent to which the earlier Hinduism entered into the religion previously professed by the Shāns. Out of the 28 *puthis* in Babu Phani-dhar's list, I think that at least 14 should be translated. The copying of a small *puthi* is estimated to take 14 days, and that of a large one 28 days. On an average, it may be assumed that 20 days would be required for copying each *puthi*. This would be done by the *deodhais* themselves, and the remuneration they would require would be about Rs. 10 per mensem. Consequently, it would cost us about Rs. 100 to obtain copies of 14 *puthis*. Assuming that it took the person appointed to supervise the work four months to learn the Āhōm language, we should have to pay his teacher Rs.  $4 \times 10 =$  Rs 40. Having learnt the language, he would have to go through each of the *puthis* with the *deodhai* who copied it, and having got its meaning, he would have to translate it. Assuming that this took about the same time as the copying, the translator would be engaged on the work for 280 days, and he would have *deodhais* working with him for the same length of time. Consequently, the total expenditure on the remuneration of the *deodhais* would be Rs. 240, and to this would have to be added the pay of the translator for 120 days while learning the language and 280 days while translating, or about 14 months in all. I can obtain the services for this purpose of an intelligent young Assamese, who has passed the F. A. Examination, for Rs. 30 per mensem, or Rs. 420 for the whole period of 14 months. He would also have to be given a small contingent grant for paper, &c. If more *buranjis* come to light, or if it is decided to deal with all known Āhōm *puthis*, he would be required for a longer period; in the above calculation, I am only estimating for the cost of copying and translating the more important *puthis* in Babu Phani-dhar's list. For this purpose, I think that a grant of Rs. 400 this year and Rs. 500 next year would suffice to cover all the charges which are likely to be incurred.

19. If the above proposals are sanctioned, it may perhaps be thought impracticable to sanction a separate establishment for searching for manuscripts until the translation of Āhōm *puthis* has been brought to a conclusion, but even if no special staff is employed, I think we might

be doing something. District officers and others can search for manuscripts and copper plates, and the more important of the former which are known might be copied.\* If a small

\* I have just heard of some manuscripts in Sibsagar which will probably prove very interesting.

grant of Rs. 500 a year could be allotted for two or three years, it would, I think, suffice to enable us to get photographs, and rubbings of the inscriptions referred to in paragraph 16 (8), and to obtain copies and translations of such historical and quasi-historical writings as are already known to exist, excluding those in Manipur, for the copying and translating of which the State might fairly be called upon to provide the necessary funds. It would also leave a margin for the purchase of the coins referred to in paragraph 16 (1) (3) and (4) whenever any new ones are brought to light, and if any money should still remain available, it might profitably be spent in the gradual exploitation of the old ruins of palaces, forts, and temples which are scattered all over the province. In the meantime, enquiries could be carried on by the district staff and other persons interested into the different sources of information indicated in this Note, and we should thus be able to know, by the time the copying and translating of *Ahóm puthis* has come to an end, in what directions it would be best to continue our operations with a view to rescuing from oblivion the past history of the province.

E. A. GAIT.

SHILLONG,

The 6th September, 1894.

The following papers were read:—

1. *Note on the Oriental Species of the rhopalocerous genus EURYTELA, Boisduval.*—By LIONEL DE NICÉVILLE, Esq., F. E. S., C. M. Z. S., &c.

In 1869, Dr. A. R. Wallace in his "Notes on Eastern Butterflies"\* enumerated two species of the genus *Eurytela*, Boisduval, as occurring in the East, *E. castelnavi*, Felder, from the Malay Peninsula (Singapore), and Borneo, and *E. horsfieldii*, Boisduval, from Java. No new oriental species have since been described, but the known habitat of these two species has been greatly extended since then. I find on a close examination of my large series of specimens of the genus, that they can be split up considerably into distinct species; these I briefly characterise below. I have not thought it necessary to figure the new species from India, as Mr. F. Moore will shortly deal with them in his "Lepidoptera Indica," vol. ii. *E. fruhstorferii*, however, from Java, will be more fully described and figured elsewhere hereafter.

\* Trans. Ent. Soc. Lond., 1869, p. 331.

*Eurytelas* appear to be always rare, never occurring in large numbers anywhere. Captain E. Y. Watson has noted that their flight is like that of *Neptis*, as they fly with wings extended flat, parallel with the ground; they settle on the tips of leaves with open wings, and then raise their wings slowly over their backs. This note I can confirm, having seen *E. horsfieldii* alive in the forests at Selesseh in North-Eastern Sumatra. The females of all the oriental species of *Eurytela* on the wing remind one at once of tawny *Neptes*, or more closely of species of *Ergolis*, which is, I believe, a protected genus, and of which the very differently-coloured females of *Eurytela* are probably mimics.

### 1. EURYTELA CASTELNAUI, Felder.

*E. castelnaui*, Felder, Wien. Ent. Monatsch., vol. iv, p. 401, n. 26 (1860); idem, id., Reise Novara, Lep., vol. iii, p. 450, n. 789, pl. lxi, figs. 5, 6, male (1866); id., Wallace, Trans. Ent. Soc. Lond., 1869, p. 331, n. 1; id., Distant, Rhop. Malay., p. 136, n. i, pl. xv, fig. 10, male (1893); p. 441, pl. xliii, fig. 10, female (1893); id., de Nicéville, Butt. of Ind., vol. ii, p. 13 (1886); id., Staudinger, Ex. Schmett., p. 105, pl. xxxix, male (1895).

HABITAT: Malay Peninsula (*Felder*); Singapore; Borneo (*Wallace*); Perak, Malay Peninsula (*Distant*); Sumatra (*Snellen*); Nias Island (*Kheil*); Palawan, Philippine Isles (*Staudinger*); Daunat Range, Tenasserim, Burma; Taiping and Perak, Malay Peninsula; N.-E. Sumatra; Nias Island (*coll. de Nicéville*).

Male specimens taken in December on the Daunat Range, Tenasserim, have on the upperside of the hindwing a prominent discal black line extending from the costa to the abdominal margin. This black line is also present in one specimen from Sumatra in my collection.

### 2. EURYTELA FRUHSTORFERII, n. sp.

HABITAT: Central Java, 1500 feet.

The male of this species may be known from the same sex of *E. castelnaui*, Felder, on the upperside of both wings in the blue coloration being of a different shade, distinctly lighter, with a strong gloss, which in some lights causes the surface to present a distinctly glossy green appearance. In figuring *E. castelnaui*, Felder quite correctly portrays the upperside "without gloss," and Dr. A. R. Wallace notes the same thing. The only difference in markings noticeable is on the upperside of the hindwing, *E. castelnaui* having the submarginal black line very narrow and clearly defined, *E. fruhstorferii* having it many times broader, and the edges somewhat diffused.

### 3. EURYTELA HORSFIELDII, Boisduval.

*E. horsfieldii*, Boisduval, Fann. Ent. Madagasc., p. 54, n. 1, male (1833); id., de Nicéville (*part*), Butt. of Ind., vol. ii, p. 12, n. 302 (1886); *E. horsfieldi*, Wallace,

Trans. Ent. Soc. Lond., 1869, p. 331, n. 2; *E. stephensii*, Boisduval, Faun. Ent. Madagasc., p. 55, n. 2, female (1838).

HABITAT:———(*Boisduval*); Java (*Wallace*); ? Fort Stedman. Shan States (*Manders*); ? Karen Hills; ? Singmo, Shan States (*Elwes*); Katha, Meplé (April), Burma; N.-E. Sumatra; Preanger, Java (*colls. de Nicéville and Watson*).

The male of this species is characterised on the upperside of both wings by its rich dark blue coloration, with a very broad submarginal black band to the hindwing. The female, of which I possess a single example only from Sumatra, has the paler markings of the upperside of a somewhat dark shade of ochreous. I have not access to the original description of this species, so cannot say if Dr. Boisduval characterised it from Javan specimens or not; I presume so, however, as Dr. Wallace gives Java as the sole habitat of the species, and its name would indicate that it is a Javan species, as Dr. Thomas Horsfield's researches in the fauna of that island have a world-wide reputation.

#### 4. EURYTELA GLAUDESCENS, n. sp.

*E. horsfieldii*, de Nicéville (*part, nec Boisduval*), Butt. of India, vol. ii, p. 12, n. 302 (1886).

HABITAT: Papun (November and December), Methalauk near Papun (November), Karen Hills, 500-1500 ft. (December), Toungu (December), Meplé (October and December), all in Burma; Central Java, 1,500 feet (*colls. de Nicéville and Watson*).

The male of this species may be known from the same sex of *E. horsfieldii*, Boisduval, by its very much duller coloration on the upperside, being of an almost plumbeous or glaucous tint instead of a rich indigo-blue; and it does not possess a broad submarginal black band to the hindwing, and the submarginal black line on the forewing also is obsolete. The female (of which I have access to three specimens) is in two examples from Papun of a more luteous shade on the upperside than in my single Sumatran example of *E. horsfieldii*, in another Papun example the shade of colour of the upperside is very dark and might be described as dull ferruginous, with the apical portion alone of the broad discal band common to both wings luteous on the forewing.

#### 5. EURYTELA ANDAMANENSIS, n. sp.

*Eurytela horsfieldi*, Moore (*nec Boisduval*), Proc. Zool. Soc. Lond., 1877, p. 585; *E. horsfieldii*, Wood-Mason and de Nicéville (*nec Boisduval*), Journ. A. S. B., vol. xlix, pt. 2, p. 228, n. 21 (1880); *idem*, *id.*, l.c., vol. 1, pt. 2, p. 245, n. 28 (1881); *id.*, (*part*), de Nicéville, Butt. of Ind., vol. ii, p. 12, n. 302, pl. xviii, fig. 69, male (1886).

HABITAT: South Andaman Isles.

The male of this species agrees with the form which I have con-

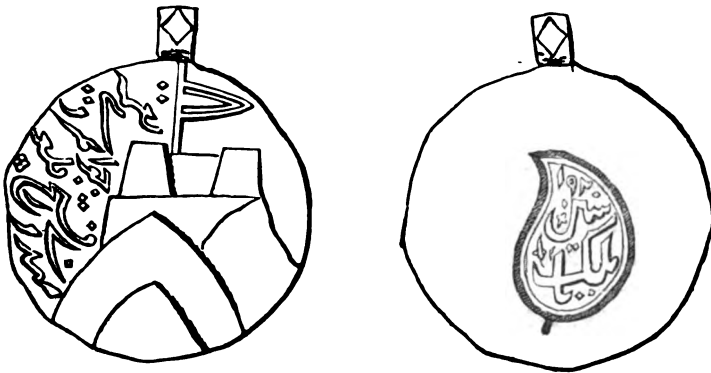
sidered to be typical *E. horsfieldii*, Boisduval, i.e., it is rich dark blue on the upperside of both wings, with a very broad submarginal black band to the hindwing. The female differs from the same sex of *E. horsfieldii* on the upperside of both wings in having the broad discal band very pale luteous; as compared with the band in *E. horsfieldii* it may be said to be almost white so much paler is it; and on the hindwing it is continued almost to the base of the wing.

2. *A Kashmiri War Medal.*—By C. J. RODGERS, Esq., *Honorary Numismatist to the Government of India.*

Some time ago I came across the medal of which the accompanying is a drawing. It has on the obverse the picture of a mountain fort on which is a flag flying. To the left of the fort is the legend—

نغمه "Medal  
 جوانمردی for bravery  
 فتح قلعه at the taking of the Fort  
 مندوری of Mandauri."

On the other side in a leaf pattern area:— ۱۹۲۰ ملک یاسین — "The country of Yāsin, 1920 Samvat=1863 A.D.



In Amritsar I could get no information about the Fort of Mandauri. I therefore applied to Kashmir through the Resident. I was informed that a medal had been struck and that no further information was available. So I wrote to Captain Trevor of the XVth Sikhs and asked him to make enquiries. He did so, and his correspondent General Panjāb Singh wrote him and said that the Fort of Mandauri, which is the name of the fort at Yāsin, was taken by General Hoshyārji according to orders received from His Highness the late Maharaja of

Kashmir, and that after its conquest medals were struck for both officers and men. The drawing is of the medal for the men.

The medal from which I made this drawing is now in the Indian Museum, Calcutta. It is interesting at the present time when Yāsin, which is beyond Gilgit, is mixed up with our border affairs.

The medal is interesting as being one of the few, known to us, issued by a Native State, as a memento of services in the field.

We ought to have all the medals of all our wars in India, in the Indian Museum and have them edited with notes on the wars for which they were given.

3. *Ancient Buddhist Statuettes and a Chandellā copper-plate from the Bāndā District.*—By V. A. SMITH, Esq., I. C. S., and W. HOEY, Esq., D. Litt., I. C. S.

The paper will be published in the *Journal*, Part I.

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## LIBRARY.

The following additions have been made to the Library since the Meeting held in May last.

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### TRANSACTIONS, PROCEEDINGS, AND JOURNALS,

*presented by the respective Societies and Editors.*

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**PROCEEDINGS**  
**OF THE**  
**ASIATIC SOCIETY OF BENGAL,**  
**FOR JULY, 1895.**

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The Monthly General Meeting of the Asiatic Society of Bengal was held on Wednesday, the 3rd July, 1895, at 9-15 P. M.

DR. G. A. GRIERSON, C. I. E., in the chair.

The following members were present :—

F. Finn, Esq., The Rev. H. B. Hyde, J. Mann, Esq., Dr. D. M. Moir, R. D. Oldham, Esq., C. R. Wilson, Esq.

The minutes of the last meeting were read and confirmed.

One hundred and twenty-three presentations were announced, details of which are given in the Library List appended.

The following gentlemen duly proposed and seconded at the last meeting of the Society were balloted for and elected Ordinary Members :—

N. D. Beatson-Bell, Esq., I. C. S.  
N. Bonham-Carter, Esq., I. C. S.  
H. D. Carey, Esq., I. C. S.  
R. W. Carlyle, Esq., I. C. S.  
J. G. Cumming, Esq., I. C. S.  
J. G. Monohan, Esq., I. C. S.  
C. E. A. W. Oldham, Esq., I. C. S.  
A. F. Steinberg, Esq., I. C. S.  
P. J. Melitus, Esq., I. C. S.  
Surgeon-Major L. A. Waddell (re-elected).

The following gentleman is a candidate for election at the next meeting :—

Babu Mahendra Nāth Ray, Howrah, proposed by Dr. G. A. Grierson, seconded by C. R. Wilson, Esq.

The following gentlemen have expressed a wish to withdraw from the Society :—

Dr. G. M. Giles.

Babu Ganęa Chandra Chandra.

The SECRETARY reported the death of the following members :—

A. M. Nash, Esq. (Ordinary Member).

Professor T. H. Huxley (Honorary Member).

The CHAIRMAN reported that Mr. C. R. Wilson had returned to India and had taken charge of the General Secretaryship from Surgeon-Lieut.-Col. G. Ranking.

The PHILOLOGICAL SECRETARY read a report of the Committee of the 10th International Congress of Orientalists held at Geneva, on Transliteration.

10TH INTERNATIONAL CONGRESS OF ORIENTALISTS,  
HELD AT GENEVA.

TRANSLATION

OF THE REPORT OF THE COMMITTEE ON TRANSLITERATION.

The Commission appointed by the Congress to adopt a system of transcription of the Sanskrit and Arabic Alphabets has held several sessions.

After having examined and discussed the systems in use up to the present time, and having considered the different improvements which have been proposed to the Commission by its Members and other savants, the Commission submits for the approval of the Congress for uniform adoption by Orientalists the systems put forward in the two tables annexed to the present report.

The Commission has taken as a basis for its work the Report drawn up by a special Committee nominated by the Royal Asiatic Society of London, as well as the methods of transcription generally employed in France, in Germany, and by the Bengal Asiatic Society. The Commission does not claim to have arrived at a perfectly scientific system: it has been necessary to have regard to established customs and also to take into consideration the differences of pronunciation

which the letters of the Arabic Alphabet have received in the various Musulman countries.

This is one of the reasons for the two methods of transcription which the Commission has proposed as alternatives for certain letters.

The number of letters whose transcription is a matter of option has been brought to the very lowest possible number consistent with necessity, and we may fairly hope that Orientalists of all countries will take pains to render this number still smaller, by keeping as closely as possible to the method of transcription to which the Commission has deemed it a duty to give the preference.

With regard to the transcription of Sanskrit there has been far less diversity of opinion, and difficulty has only been experienced in the transcription of a very small number of letters.

In such cases, the Commission, in weighing the various equivalents proposed, has chosen those which on the whole appear to be the most practical. To arrive at uniformity, each country and each Society ought to make certain concessions, and the Commission hopes that the systems now put forward by it will be unanimously accepted and put in practice forthwith.

BARBIEE DE MEYNEARD.  
 G. BÜHLER.  
 J. BURGESS.  
 M. J. DE GORJE.  
 H. THOMSON LYON.

G. T. PLUNKETT,  
 EMILE SENART.  
 SOCIN.  
 WINDISCH.

Geneva, the 10th September, 1894.

TRANSLITERATION OF THE SANSKRIT AND PALI ALPHABETS.

अ	..... a	ऋ	..... r̥
आ	..... ā	ऌ	..... ḷ
इ	..... i	ॠ	..... ṛ
ऋ	..... ī	ए	..... e
उ	..... u	ऐ	..... ai
ऊ	..... ū	ओ	..... o
ऋ	..... r̄	औ	..... au



क	.....	k	ब	.....	b
ख	.....	kh	भ	.....	bh
ग	.....	g	म	.....	m
घ	.....	gh	य	.....	y
ङ	.....	ṅ	र	.....	r
च	.....	c	ल	.....	l
छ	.....	ch	व	.....	v
ज	.....	j	श	.....	ś
झ	.....	jh	ष	.....	ṣ
ञ	.....	ñ	स	.....	s
ट	.....	ṭ	ह	.....	h
ठ	.....	ṭh	ळ	(in Pali ḷ) . . . . .	ḷ
ड	.....	ḍ	◌ <sup>◌</sup>	(Anusvāra, Niggahita) . . . . .	ṁ
ढ	.....	ḍh	◌ <sup>◌</sup>	(Anunāsika) . . . . .	ṅ
ण	.....	ṇ	◌ <sup>◌</sup>	(Visarga) . . . . .	ḥ
त	.....	t	×	(Jihvāmūliya) . . . . .	ḥ
थ	.....	th	×	(Upadhmanīya) . . . . .	ḥ
द	.....	d	ऽ	(Acagraha) . . . . .	ḥ
ध	.....	dh	Udātta	.....	ḥ
न	.....	n	Svarita	.....	ḥ
प	.....	p	Anudātta	.....	ḥ
फ	.....	ph			

TRANSLITERATION OF ARABIC ALPHABET.

Recommended.	Recommended.
ا at beginning of word omit; hamza elsewhere َ	غ <i>g</i> permissible <i>gh</i>
ب <i>b</i>	ف <i>f</i>
ت <i>t</i>	ق <i>q</i>
ث <i>t̤</i> permissible <i>th</i>	ك <i>k</i>
ج <i>j</i> permissible <i>dj</i>	ل <i>l</i>
ح <i>h</i>	م <i>m</i>
خ <i>h̤</i> permissible <i>kh</i>	ن <i>n</i>
د <i>d</i>	و <i>w</i>
ذ <i>d̤</i> permissible <i>dh</i>	ه <i>h</i>
ر <i>r</i>	ي <i>y</i>
ز <i>z</i>	vowels َ <i>a</i> , ِ <i>i</i> , ُ <i>u</i>
س <i>s</i>	lengthened ِ <i>ā</i> , ِي <i>ī</i> , ُو <i>ū</i>
ش <i>ʃ</i> permissible <i>sh</i>	diphthongs ِي <i>ay</i> and ُو <i>aw</i>
ص <i>ʃ</i>	<i>e</i> and <i>o</i> may be used in place
ض <i>ḍ</i>	of <i>ī</i> & <i>ū</i>
ط <i>t̤</i> or <i>t</i>	also <i>ē</i> & <i>ō</i> in Indian dialects,
ظ <i>ẓ</i> or <i>z</i>	<i>ü</i> & <i>ö</i> in Turkish.—ل of
ع َ	article ل to be always <i>l</i> .

ADDITIONAL IN PERSIAN, HINDI  
AND PAKSHTŪ.

پ	<i>p</i>
ڤ	<i>q</i> permissible <i>qh</i>
ڙ	<i>ʒ</i> permissible <i>zh</i>
گ	<i>g</i>

TURKISH LETTERS.

(Omitted.)

HINDI AND PAKSHTŪ.

ٹ	or ٲ	<i>t̤</i>
ڈ	or ڍ	<i>ḍ</i>
ڑ	or ڙ	<i>r</i>

PAKSHTŪ LETTERS.

خ	<i>tx</i>
ځ	<i>g</i>
ځ	<i>n</i>
ځ	<i>ksh</i>

Also in India will be recognized *ʒ* for ڙ, *z* for ڍ, and *ʒ* for ڙ.

REPORT OF THE SUB-COMMISSION FOR THE TRANSCRIPTION OF THE  
SANSKRIT AND PRAKRIT ALPHABETS.

The Sub-Commission appointed to consider the transcription in Roman characters of Sanskrit and Prakrit has done me the honour of entrusting me with the duty of communicating to you its views.

My first duty is to recall to you the terms in which the question was placed before the Commission— who were not asked to elaborate an Alphabet of a theoretical nature capable of completely satisfying all linguistic demands. That would have been an arduous, and to tell the truth, an impossible task, inasmuch as, to be really definite, the proposals would have had to take into account not only scientific results already achieved or supposed to be achieved, but those also which without doubt, are held in reserve for the future. Its mission was a more modest one. In presence of the systems of transcription already adopted, if I may so say in the rough—on one hand by the Royal Asiatic Society and on the other by the Deutsche morgenländische Gesellschaft— but open to modifications of detail, the Commission was called upon to express its opinion, and to attempt above all to arrive, by certain eclectic corrections, at the unification of the two series. We have neither the right nor the power to establish a universal uniformity, which would be the real desideratum.

For instance, I myself did not put forward any French proposition.

The transcriptions in customary use in the various countries have nevertheless, in a general way, shewn such an evident tendency to approach one another that it hardly seems presumptuous in these days, to predict a unanimous accord in the not distant future. It was then desirable to decide those propositions which appeared, from their very simplicity, to be of a nature to form by degrees, a rallying point for all.

We were not able to lose sight of the essentially practical nature of the task assigned to us: we were above all bound to pay special attention to the presumed feeling of India, where the adoption of an uniform transcription in proper names and for daily use is so urgently necessary.

Under these circumstances, the Commission could not fail to incline towards pure and simple acquiescence in the propositions which had been submitted to their consideration, in so far as these propositions were concordant: and this principle met with the unanimous approval of the Commission, except in one point.

The two proposals agree in transcribing the *r* and *l* vowels by *r* and *l* (do!ted).

Monsieur de Saussure, who is a high authority on these matters,

thinks that he cannot accept this notation, and he has been kind enough to reduce his reservations to writing in the following terms:—

“It is desirable, in the interests of Indo-European linguistic science, and quite apart from all personal conceptions of the question, that the notation *ṛ*, *ḷ* should be preferred to the notation *ṛ* *ḷ* for this reason, that in the analysis of every Indo-European language Sanskrit not excepted, the vowels *ṛ* *ḷ* hold a position in all respects equivalent to that of the vowels *ṛ* *ḷ*; consequently, if we adopt *ṛ* *ḷ*, we compel linguists to write *ṛ* *ḷ*, and as a further consequence there arises a confusion between *ṛ* and certain notations of anusvara—and between *ḷ* and the cerebral consonant *ṇ*.”

The Sub-Commission is compelled to recognize the force of this argument which is, moreover, all the stronger from the fact that MM. Bühler and Windisch bear testimony that the German Oriental Society had originally of its own accord inserted in its programme the transcription *ṛ* and *ḷ*, with a circle. If in spite of this, the Sub-Commission has not thought fit to propose the adoption of this amendment, its action is due to considerations of a purely practical nature. The German Committee only decided upon the transcription *ṛ* and *ḷ* (with a dot) after due discussion, and a special vote.

Would it then be wise to reopen the debate upon a question of detail upon which the German Committee finally accepted without previous agreement, the English proposals? Would not this be to endanger at the very outset, an undertaking the success of which is so eagerly desired? On the other hand, it seems essential to the really wide and general spread of the system, that it should as far as possible, offer to the eyes even of the uninitiated, only such symbols as will neither grate against their sensibilities nor startle them—signs with which they are sufficiently familiar from their habitual use in other directions in the current alphabet.

It is moreover only too evident that the transcription in which we attempt to come to an understanding, would not satisfy the demands of linguistic science, in themselves perfectly legitimate at least without many other retouchings which must, however, be given up since the only excuse for introducing them would condemn the attempt beforehand to an annoying barrenness of results. I pass on to the points very few in number, in which we have been obliged to exercise a choice, owing to the two systems not agreeing. No sign for the long *ḷ* vowels has been fixed upon by the German Oriental Society. The notation proposed by the London Society, by means of *ḷ* with two dots underneath it, appears to recommend itself. Typographic exigencies do not permit of the letter *ḷ* being surmounted by the sign of the long accent. This lack

of symmetry ; side by side with  $r$  and  $\bar{r}$ , has so much the less importance because the  $l$  as a long vowel is more rarely used.

For the  $e$  and the  $o$  in Sanskrit it seems of no advantage to place the sign of the long accent above the letter ; no confusion is possible : and it appears preferable to keep the use of diacritical signs for exceptional cases where, whether in Sanskrit or in Prakrit, one has to denote the short  $e$  or the short  $o$ ,  $\acute{e}$ ,  $\acute{o}$ .

For the guttural  $n$ , we propose to adopt  $\overset{\cdot}{n}$  with a dot above it. It does not seem that there is any ground for introducing as the London table proposes, a particular sign specially invented to meet this unique case. The notation  $\overset{\cdot}{n}$  is widely used among Indianists of all countries, and as for the objection which the London Society advances against the addition of a diacritical sign over a consonant, this has all the less weight with us in that every one agrees in accepting the form  $\tilde{n}$  to represent the palatal  $\tilde{n}$ . The notation  $\overset{\cdot}{n}$  is based on the analogy of other nasals and need give rise to no surprise.

By a very curious change of positions it is the English who propose  $\zeta$  for the palatal sibilant and the Germans who propose the notation  $\acute{s}$ , whereas  $\acute{s}$  was originally very generally employed in the English transcriptions and  $\zeta$  in those of the continent. This is perhaps, for the very reason of the wide diffusion of this sign  $\zeta$ , the most delicate point upon which you have to decide.

Your Sub-Committee did not underrate the difficulties which exist in modifying old customs, and the danger there is of more serious error between three different  $s$  forms. If however, they finally decide in favour of the transcription  $\acute{s}$ , this decision is not due to any excessive desire for symmetry between the sibilants, but is for three reasons which it will suffice to rapidly indicate.

The first is happily expressed by the report of the London Society. It rightly recommends preference being given to transcriptions of such a kind that in cases where the diacritical signs are compulsorily or accidentally omitted, the pronunciation will not be too far disfigured for European ears. Although this principle is not capable of invariable application it is good to keep to it as far as possible.

On the other hand, great stress has been laid upon the disfavour with which the notation  $\zeta$  is sure to be regarded in India : the French practice having only familiarised very few people with this letter. This would come as a surprise to the great majority of those interested. Dr. Bühler considers that if we attempted to bring over to it, for example the *Indian Antiquary*, we should encounter an invincible opposition. This is a consideration whose gravity it is impossible to ignore. The superiority of  $\acute{s}$  for clearness and convenience of indexing has no less impressed the Commission.

The table of the German Oriental Society transcribes the cerebral *l* by *ḷ* with a point subscript. There is not it is true any serious risk of confusion in practice between the vowel and the cerebral *l*. It is however preferable to establish a difference between the writing of the two letters, so that each separate symbol of the Devanāgarī alphabet may possess its appropriate equivalent in the alphabet of transcription. The *ḷ* with a line subscript answers perfectly, as the London Society proposes, for the notation of the cerebral *l*.

Against this the transcription of Anunāsiká by *ñ* in place of the simple sign *~* placed above the vowel recommends itself at once by its symmetry with the notation *ñ* of the annswára and by the advantage which it possesses of reflecting, by an alphabetic character the phonetic value of which it is the exponent equally with all the other signs. Upon these bases, the alphabet of transcription would be thus constituted.

*a ā i ī u ū r ṛ ḷ ḷ̣ e ai o au*  
*k kh g gh ṅ*  
*c ch j jh ñ*  
*ṭ ṭh ḍ ḍh ṇ*  
*t th ḍ ḍh n*  
*p ph b bh m*  
*y r l v ś ṣ ḥ ḷ ṁ ṃ̇*  
*visarga ḥ*  
*jihvāmūliya ḥ*  
*upadhmāniya ḥ*

As to the accents, the udātta would be represented by the acute accent ' ; the svarita by the circumflex ^ ; and the anudātta by the grave accent `.

Such, gentlemen, are the modest conclusions without pretensions to being systematic, which your Sub-Committee has the honour to submit to you.

Your Sub-Committee is of opinion that it is only by very carefully adjusted reforms that it will be possible to make any decisive progress in the unification of rival systems.

The coöperation of two powerful Societies such as the German Oriental Society and the Royal Asiatic Society of London whose agreement under these conditions would appear to be assured, cannot fail to be a very powerful lever.

There is moreover every ground for hope that propositions so eclectic and so little ambitious will command even other and valuable adherents.

EMILE SENART.

## PROPOSALS

OF THE

### SUB-COMMITTEE FOR THE TRANSLITERATION OF THE ARABIC ALPHABET.

1. The Committee agree upon the following :

ب *b* — ت *t* — ح *h* — د *d* — ر *r* — ز *z* — س *s* —  
ص *ṣ* — ف *f* — ق *q* — ك *k* — ل *l* — م *m* — ن *n* —  
ه *h* — پ *p*

2. For ج they recommend *j* but will allow *dj* to be used as a substitute.
3. For ض *ḍ* but allow *z* in India.
4. For ط *ṭ* and for ظ *ẓ*. This is to avoid upsetting the Indian accepted system — elsewhere *t* and *z* will suffice.
5. For ي *y* whenever ي is a consonant. Whilst fully appreciating the reasons why German Orientalists have preferred *j*, the Committee feel obliged to adopt the character used throughout India and by English, French and many other writers and scholars.
6. | at the commencement of a word need not be transliterated, *Hamzah* in the middle or at the end of a word to be represented by ' above the line.
7. For ع ' above the line (a comma reversed).

8. For
- |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|
| ث | خ | ذ | ḍ | غ | ز | ج |
| ṭ | ḥ | ḍ | ḡ | g | z | ǰ |

but agree that th kh dh sh gh zh ch may be used as substitutes for the above.

They consider that ṭ, ḥ etc., are better than ṭ, ḥ, ṭ, ḥ etc., or any others in which the mark is placed above the consonant, as in this position the mark may be taken for the accent of a vowel, the cross of a *t*, etc., etc.

They will allow in India as substitutes for the above ث *ṭ* and ذ *ḍ*.

9. For و as a consonant *w*.
10. For گ in Persian, Hindustani & Turkish *g*.
11. (Omitted.)

12. That the Hindi and Pakshtū characters be represented thus

ط or ٲ ٲ — ٲ or ٲ ٲ — ٲ or ٲ, ٲ  
 ح ٲ — ٲ ٲ — ٲ ٲ — ٲ ٲ *ksh*

13. The ٲ of the article ٲ always to be transliterated l.

14. That the vowel-points be ˘ a, ٲ i, ˘ u.

The lengthened vowels ˘ ā, ٲ i, ˘ ū. That e and o may be used in place of ˘ ī and ˘ ū in these languages in which it may be necessary. That ˘ ü and ˘ ö may be also used in Turkish and ˘ æ and ˘ ø in Indian dialects.

That the so called diphthongs ٲ i and ٲ ū be ay and aw.

G. T. PLUNKETT.

THE HONORARY PHILOLOGICAL SECRETARY laid on the table two communications received from Maulvī Abdul Walī of Sailkapa, Jessore, regarding Mr. W. Irvine's article on *Guru Gōbind Singh and Banda*,<sup>1</sup> and the correspondence between that gentleman and Mr. C. J. Rodgers on the same subject.<sup>2</sup> Maulvī Abdul Walī states that the name of the author of the *Farrukh Shāh Nāmah*<sup>3</sup> was Mir Muḥammad Aḥsan, and not Iḥsan. The book is wrongly called *Farrukhsiyar nāmah*. During the reign of Shāh 'Ālam, Mir Muḥammad Aḥsan Ijād was appointed Vakīl to the sarkār of Prince 'Azīmu-ḡh-ḡhān, son of Shāh 'Ālam, by Aḥsaf Jāh (*Niḡāmu-l-mulk*), and was given by that Prince a command of three thousand troop. In Farrukhsiyar's reign he received the title of *Mā'niyāb Khān* and was employed by him to write the *Shāh Nāmah*, which he used to show once a week to the Emperor, receiving on each occasion a reward of Rs. 1,000, and a *Khūl'at*. Having completed his History to the end of Farrukhsiyar's reign, Muḥammad Aḥsan died in 1133 H.

The above facts are extracted from Mir Ghulām 'Alī Āzād's Biographical work, the *Khazāna-i-Amirah*.<sup>4</sup>

The Maulvī also suggests that the correct spelling of Lohgarh and *sacā pādshāh* on p. 134 of the *Journal*, Vol. LXIII, Pt. I, should be Lōhāgarh and *saccā pādshāh* respectively. He translates the inscription on p. 135 as follows: 'Guru Gōbind Singh *inherited from* (not *found in*) Nānak, sword, pot, and conquest, help without hindrance.' As regards *Sadhaura* or *Sādhaurā*, he points out that Mir Ghulām 'Alī Āzād in

<sup>1</sup> See *Journal*, Vol. LXIII, Pt. I, pp. 112 and following.

<sup>2</sup> See *Proceedings* for 1895, pp. 35 and ff.

<sup>3</sup> *Proceedings*, 1895, p. 37

<sup>4</sup> Incorrectly called the *Khirānah-i 'Amirah* of Ghulām 'Alī Arad, on p. 38 of the *Proceedings* for 1895.



the *Khazāna-i-Amīrah* (Lith. Ed. p. 425) says that Ananda-ram, *Mukhlīṣ* the poet and *raīs*, was an inhabitant of *سودھراہ* *Sūdahrah* or *Sūduhrah* within the jurisdiction of Lāhōr. He suggests that this may possibly be the same place as Sādhourā.

The HONORARY PHILOLOGICAL SECRETARY exhibited a remarkable carved conch shell, forwarded by Mr. Gait, and read the following letter from that gentleman which accompanied it. The Inscription reads  
 १५६१ सकत अग्रन मासत बी-बी-युत बीर-दर्य-नारायण कासत र सङ्ग काठि ।

DEAR SIR,

I am sending for exhibition a shell with the ten *avatārs* carved on it, which has been found in the possession of a native of the Cachar District, and forwarded to me for inspection by Babu Krishna Kumar De, Assistant Settlement Officer. The shell is interesting on account of the inscription, which is to the effect that it was carved in the reign of *Vīra-darpa-nārāyaṇa*, in the month of *Agrahāyaṇa*, 1593 *Çaka* (1671 A.D.)\* No written records of the *Kachārī rāj* have hitherto come to light, and the traditions of the people give little more than a long list of kings. Any items of definite information such as that contained in this inscription, are, therefore, most useful.

The same King is referred to in an *Āhōm burāñji*, which was translated into Assamese and published in the *Arunōdai* of 1851 A.D., in which it is stated that in 1567 *Çaka* (1645 A.D.), he sent messengers to the *Āhōm King*, *Nariā rājā*, asking for his daughter in marriage. In this *burāñji* he is called also *Hiḍimbēçvara* and *Vīra-bhadra*.

The same *burāñji* speaks of a *Kāchārī* invasion in 1410 *Çaka* (1488 A.D.), in the course of which the *Āhōms* were defeated on the bank of the *Dikhu* river. Thirty-seven years afterwards an *Āhōm* force ascended the *Dhansiri* river to attack the *Kāchārīs*, and a few years later, in another war, the *Kachārī King*, *Khunkhara*, was killed, and one *Neochung* was set up in his place. In 1457 *Çaka* (1535 A.D.), *Neochung* was in his turn attacked, and his brick city at *Duimapur* was sacked; *Neochung* himself escaped at the time, but was subsequently captured and beheaded. About 1525 *Çaka* (1603 A.D.) there were hostilities between the *Kāchārīs* and the *Jaintia rājā*, in which the latter managed to embroil the *Āhōm King*, by offering him his daughter in marriage on condition that he should fetch her by a route which lay through the *Kāchārī* country.

\* The peculiar symbol used to represent the figure 5 which occurs on coins of the *Āhōm*, *Koch*, *Tippera*, and *Jaintia Kings*, is found again in this inscription.

An inscription on a ruined temple at Maibong runs—

*Çaka 1643 (1721 A.D.), Çr Hariçcandra Bhūpati.*

There is a Sanad in existence bearing the name of Kirti-candra-nārāyaṇa, in which certain arrangements are made for the Government of the plains portion of Cachar, which is interesting as showing that the final retreat of the ruling family from Maibong in the North Cachar Hills to Khāspur in the plains of Cachar, had taken place before that date. This movement is said to have been due to oppression by the Jaintiās, just as the exodus from Duimapur to Maibong is ascribed to the continued attacks of the Āhōms. The latter movement probably took place after the sacking of the city in 1457 Çaka (1535 A.D.)

Yours truly,

E. A. GAIT.

The following papers were read :—

1. *On Mogul Copper Coins.*—By C. J. RODGERS, ESQ., Honorary Numismatist to the Government of India.

The paper will be published in the *Journal*, Part I.

2. *Description of a new species of Oxzyrhynch Orab of the Genus Parthenope.*—By SURGEON-CAPTAIN A. ALCOCK, M.B., C.M.Z.S., Superintendent of the Indian Museum.

The paper will be published in the *Journal*, Part II.

3. *Note on some Coins of Koch Kings.*—By E. A. GAIT, ESQ., I. C. S.

4. *Some Notes on Jaintiā History.*—By E. A. GAIT, ESQ., I. C. S.

5. *Note on some Āhōm Coins.*—By E. A. GAIT, ESQ., I. C. S.

The papers will be published in the *Journal*, Part I.



## LIBRARY.

The following additions have been made to the Library since the Meeting held in June last.

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**PROCEEDINGS**

OF THE

**ASIATIC SOCIETY OF BENGAL,**

FOR AUGUST, 1895.

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The Monthly General Meeting of the Asiatic Society of Bengal was held on Wednesday, the 7th August, 1895, at 9-15 P.M.

SURGEON-LIEUTENANT-COLONEL GEORGE RANKING, M.D., in the chair.

The following members were present :—

Maulvī Abdus Salam, Dr. A. R. S. Anderson, F. Finn, Esq., Dr. G. A. Grierson, Bābu Pañcānana Mukerjee, L. de Nicéville, Esq., R. D. Oldham, Esq., Paṇḍit Haraprasād Čāstri, C. R. Wilson, Esq.

The minutes of the last meeting were read and confirmed.

Forty-four presentations were announced, details of which are given in the Library List appended.

The following gentleman duly proposed and seconded at the last meeting of the Society was balloted for and elected an Ordinary Member :—

Bābu Mahendranāth Rāy.

The following gentlemen are candidates for election at the next meeting :—

T. W. Richardson, Esq., I.C.S., proposed by Dr. G. A. Grierson, seconded by Surgeon-Lieut.-Col. G. Ranking.

Bābu Rām Dīn Singh, Bankipur, proposed by Dr. G. A. Grierson, seconded by C. R. Wilson, Esq.

Bābu Lachmi Nārāyan Sing, M.A., B.L., Vakeel, High Court, proposed by Dr. G. A. Grierson, seconded by Paṇḍit Haraprasād Čāstri.

Henry DeCourcy Agnew, Esq., proposed by J. Mann, Esq., seconded by C. R. Wilson, Esq.

Rai Yatindranāth Rāy, M.A., B.L., Zeminder of Taki, proposed by Mahāmahopādhyāya Maheç Candra Nyāyaratna, seconded by Bābu Pratāpa Candra Ghoṣa.

Shams-ul-Ulama Shaikh Mahomed Gilani, Persian Instructor to Government, proposed by Surgeon-Lieut.-Col. G. Rauking, seconded by Dr. G. A. Grierson.

The following gentleman has expressed a wish to withdraw from the Society :—

Bābu Hem Candra Gosvāmi.

The SECRETARY reported the death of the following members :—

Dr. V. Ball (non-Subscribing Member).

Dr. R. Gösche, (Associate Member).

Professor Rudolf von Roth (Honorary Member).

THE HONORARY PHILOLOGICAL SECRETARY read the following announcement of the death of Professor Rudolf von Roth, an Honorary Member of the Society.

The Council regret that it has fallen to their duty to report the death, in the seventy-fifth year of his age, of Professor Rudolf von Roth, Doctor of Philosophy, Theology and Laws, Ordinary Professor of Oriental Languages and Chief Librarian of the University of Tübingen, Member of the Academies of Berlin, Munich, Göttingen, Vienna, St. Petersburg and Paris, and an Honorary Member of the Asiatic Society of Bengal, which took place on the 23rd June, 1895.

Rudolf Roth was born at Stuttgart on April 3rd, 1821. After taking his degree at Tübingen, he went to Paris, where, together with Max Müller, he studied Oriental Literature under Burnouf. He then proceeded to England, where he applied himself to the Vedic MSS. of the East India House and the Bodleian, and returned to Tübingen in 1845. Shortly afterwards he published his first work on the Literature and History of the Vēda, which was received with great favour. In 1848 he was appointed Extraordinary, and, in 1856, Ordinary Professor of Oriental Languages at Tübingen; since which time he published numerous essays and treatises of minor importance; but the work with which his name is imperishably connected is the great St. Petersburg Sanskrit Lexicon, the first volume of which appeared in 1855, while the last was completed in 1875, twenty-five years after the book was first undertaken. In this he was associated with Dr. Böhtlingk, who took charge of the department of Classical Sanskrit, while Roth principally devoted himself to Vedic, and to Medical Literature. Roth's contribution to this monumental work has ever since remained the founda-

tion of all Vedic research ; this is the greater testimony to his learning and accuracy, when we remember that at the time when he wrote, there were few printed texts available, and nearly all his information had to be collected from manuscript materials.

Oriental scholars feel that in losing Rudolf von Roth, the "old man eloquent" of Sanskrit learning, they have lost not only a great teacher but a close friend. His hospitable house on the vine-clad banks of the Neckar was ever open to the travelling student, where the boundless stores of his learning were ungrudgingly placed at the disposal of the inquirer. He had many distinguished pupils, of whom, perhaps, the late Professor Whitney is the best known, and when the Philological Secretary was in Tübingen some ten years ago, he found there, studying under him, pupils of men who had been Whitney's pupils, all of whom had sat in turn at the feet of the eminent Professor.

Dr. von Roth was elected an Honorary Member of this Society in 1881. He was ennobled by the late king of Württemberg in recognition of his great services to oriental scholarship. The University of Edinburgh gave him the degree of LL.D., *honoris causa*, and he was honoured in various ways by many Continental Academies and Societies, but the greatest testimony to his learning, is the monument, *ære perennius*, which he has left in the pages of the St. Petersburg *Wörterbuch*.

The SECRETARY reported that Mr. N. D. Beatson-Bell had compounded for his subscription as non-resident member by the payment in a single sum of Rs. 300.

The HONORARY PHILOLOGICAL SECRETARY exhibited a copper-plate grant, by which king Çiva Simha of Mithilā gave the village of Bisapī to the famous poet Vidyāpati Thakkura, and made the following remarks :—

This grant was translated by me in the *Indian Antiquary*, Vol. XIV (1885), p. 190, in an article entitled 'Vidyāpati and his contemporaries.' I had then to depend on a copy procured through the agency of a Paṇḍit. The Grant is dated in the era of Lakṣmaṇa-Sēna, 292, equivalent to A.D. 1400. The corresponding Vikrama-sambat, Çak, and (apparently) Hijra dates are also given. For reasons which it is unnecessary to state, I was unable then to get hold of the original plate. My attention has been again drawn to the matter by an article of Dr. Eggeling, No. 2864 of Part IV of the Catalogue of the Sanskrit MSS. in the Library of the India Office. In describing a MS. of the *Durgā-bhakti-taraṅginī*, he discusses the whole question of Vidyāpati's life and times. There is no doubt that the date of this grant gives

rise to serious difficulties in regard to the chronology of Vidyapati's life, and it is, as Dr. Eggeling says, desirable that the grant itself should be carefully examined. Through the kind offices of Mr. Tute, the Collector of Darbhanga, I have at length been able to obtain possession of the plate for a limited period. It has been photo-zincographed, and a reduced facsimile is published in the *Proceedings* of the Society (Plate III), so as to allow of its leisurely examination by experts in epigraphy.

The following papers were read :—

1. *Ancient Cēdi, Matsya and Karūṣa*.—By F. E. PARGITER, ESQ., I.C.S.

2. *Description of Lhāsa Cathedral, translated from the Tibetan*.—By SURGEON-MAJOR L. A. WADDELL, LL. D.

3. *Note on Viṣṇupur Circular Cards*.—By PAṆḌIT HARAPRASĀD ĆASTRI, M.A.

The papers will be published in the *Journal*, Part I.

4. *A contribution to the History of Artificial Immunity*.—By SURGEON LIEUT.-COL. GEORGE RANKING, M.D.

5. *On some new Orchids from Sikkim*.—By DR. G. KING and R. PANTLING, ESQ.

6. *Novicias Indicae, IX. Some additional papaveraceae*.—By DR. D. PRAIN.

7. *A list of the Butterflies of Sumatra with special reference to the species occurring in the North-East of the Island*.—By LIONEL DE NICEVILLE, ESQ., F.E.S.

The papers will be published in the *Journal*, Part II.

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## LIBRARY.

The following additions have been made to the Library since the Meeting held in July last :—

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Berlin. K. P. Akademie der Wissenschaften zu Berlin,—Sitzungsberichte, 1-23, 1894.

श्रीराम



श्री गौरीरंकरा न्यात्रमः ॥ सिद्धि ॥ श्रीगजपतिपुत्रानसमस्तप्रक्रियाविराजमानश्री  
 रामेश्वरीवल्लभप्रसादभवानीलक्ष्मिजायन्तापरायणारूपनारायणजलराजवि  
 राजश्रीमन्निवसिंहरेवपादाः सज्जविजयिनः जर्झलतयावीविसपीग्रामवास्तवस  
 कललोकान्नकर्मकौशुभमादिशान्तिज्ञातमनुभवताशामोषप्रत्माजिःसषक्रियात्रिव  
 जपदेवमहाराजपठितठुंरुश्रीविष्णुपतिःशासनीकृत्यपदत्रोग्रामकल्याणमे  
 तेषीपवत्रकरीकर्मणादिकर्त्तकरिद्यतेतिलसं॥२॥स्वावरायुकुण्डुरौ ॥श्रीकास्तु ॥  
 अष्टौलक्ष्मणसेनप्रपतिमतेवह्निशुद्धंतेमासिआवरासंज्ञकेमुत्रितिक्षोपख्येव  
 लब्धेगुरौ ॥वाणत्याःसरितलदेगजरथेत्याद्याषुसिद्धेपुरेदित्साहविषुदुवा  
 ५पुलकसभ्यायमथेसन्नम् ॥ससावान्प्रयुगेर्षुहंपृथुतरागोमंनदीमातृकसा  
 रणससरोवरवविषदीनामानजासीमतःश्रीविष्णुपतिशर्मासुकवपेप्रवादि  
 निर्घुजंताश्रीनात्राविषसिंहदेवपतिर्गामंदेशासन्नम् ॥चेत्रसाहसमयेव  
 शस्त्रितातुंगजह्वरपृष्णवर्तिना।अश्वपतिवल्लभोर्वलंजितं गजनाधिपतिगौड  
 ननुजाश्र ॥ऐवाकुंक्षयकञ्जलरेखाश्वेतपद्मश्वशैवल्लक्ष्मी।पस्यकीर्तिनवके  
 तककाश्यामृनिमेतिविजितोहरितांकः ॥द्विषड्भुपतिवाहिनीरुधिरवाहि  
 नीकोदिक्रिःप्रतापतरुदुष्टप्रेसमरमेदिनीप्राविता।समस्तहरिदंज्ञानावि  
 कुरपाशयाससूमसितप्रसरणारुंजगतिपेनलघुंघशामतकुंजरथ  
 प्रदःकनकदानकलुङ्गुमस्तुलापुरुषमदुर्तनिजधनैः पितादापितः  
 बुध्यानिवमलान्नानाजगतिपेनक्ष्मीचुजापरापरपपोनिधिप्रथममै  
 त्रपात्रंसदा ॥नरपतिकुलमाव्यःकरांशिदश्रावदान्यःपरिवितपर  
 मार्योदानतुष्टात्रिसार्थः निजवरितपवित्रोदेवसिंहस्पुत्रःसजपति  
 शिवसिंहवैरिनागेन्द्रसिंहः ॥ग्रामेगूर्त्तपमुस्मिन्किमपितृपतयो  
 हिन्दुवेष्येतुह्लागोकेलसात्मसासैःसहितमनुदिर्ननुजतेतेस्तघर्ष ॥पे  
 वैनैशास्रनृत्पकरहितंपालनेनिप्रतापैस्तर्षासत्कीर्तिगयादि  
 शिदिशिसुविहंजीपतीवदिवृदैः ॥सनट ०६ संवत् १४५५ शके १३१५

शुभंस्तुश्रीरस्तु ॥





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PROCEEDINGS  
OF THE  
ASIATIC SOCIETY OF BENGAL,  
FOR NOVEMBER, 1895.

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The Monthly General Meeting of the Asiatic Society of Bengal was held on Wednesday, the 6th November, 1895, at 9 P.M.

SURGEON-LIEUTENANT-COLONEL G. RANKING, M.D., in the chair.

The following members were present:—

H. K. W. Arnold, Esq., Bābu Nagendarnātha Basu, His Grace Archbishop Dr. P. Goethals, Dr. G. A. Grierson, C. Little, Esq., Bābu Pañcānana Mukerjee, L. de Nicéville, Esq., Dr. D. Prain, Bābu Mahedranātha Roy, Rai Jatindranātha Roy, Paṇḍit Haraprasād Čāstri, C. R. Wilson, Esq.

Visitor:—Bābu Tarapada Chatterjee.

The minutes of the last meeting were read and confirmed.

Ninety-five presentations were announced, details of which are given in the Library list appended.

The SECRETARY reported that the following gentlemen had been elected Ordinary Members of the Society during the recess in accordance with rule 7:—

T. W. Richardson, Esq.  
Bābu Rām Din Singh.  
Bābu Lachminārāyan Singh.  
Henry DeCourcy Agnew, Esq.  
Rai Yatindranath Rāy.  
Shams-ul-Ulama Shaikh Mahomed Gilani.  
Kiran Chandra De, Esq.  
Moulvie Mahomed Abdul Kadar, Khan Bahadur



The following gentlemen are candidates for election at the next meeting.

J. Kennedy, Esq., I.C.S., Magistrate and Collector of Murshidabad, proposed by Dr. G. A. Grierson, seconded by C. R. Wilson, Esq.

Charles Swift Delmerick, Esq., Sub-Deputy Opium Agent, Budaon, proposed by V. A. Smith, Esq., seconded by Dr. G. A. Grierson.

Pandit Harimohan Vidyabhushan, proposed by Dr. G. A. Grierson, seconded by C. R. Wilson, Esq.

The following gentleman has expressed a wish to withdraw from the Society:—

F. B. Shawe, Esq.

The SECRETARY reported the death of the following members:—

M. Louis Pasteur, Paris (Honorary Member).

H. H. The Maharaja of Jahore (Ordinary Member).

The CHAIRMAN announced that in accordance with Rule 38 of the Society's Bye-laws, the names of the following gentlemen had been posted up as defaulting members since the last Monthly General Meeting, and would now be removed from the Members' list, and that the fact would be published in the Proceedings.

J. B. Lee, Esq.

H. N. Thompson, Esq.

Jwalaprasad, Esq.

Pandit Brij Bhukan Lal.

N. F. F. Smith, Esq.

Dr. G. M. Giles.

Carr Stephen, Esq.

Bābu Kally Prasanno Sen Gupta.

Dr. J. R. Adie.

G. Hughes, Esq.

A. Constable, Esq.

The PHILOLOGICAL SECRETARY laid on the table letter No. 3325, dated 21st September, 1895, from the Under-Secretary to the Government of Bengal, General Department, covering copy of a communication addressed to the Government of India in the Revenue and Agricultural Department, with enclosures, reporting on the measures taken by the Lieutenant-Governor to procure for the Indian Museum facsimile reproductions of the Asoka Inscriptions in India.

The following is Mr. Caddy's general report:—

Dated Calcutta, the 22nd August 1895.

From—ALEXANDER E. CADDY, Esq., on Special Duty,

To—The Secretary to the Government of Bengal, Revenue Department.

I have the honour to submit a general report of the tour I have just completed and of the operations connected therewith.

2. His Honour was pleased to depute me to visit the several sites of the Asoka inscriptions in Bengal enumerated below, and to bring away plaster casts of each inscription. I was also required to photograph the *locale* of these inscriptions and other objects of allied interest:—

I & II.—The two *Champaran* columns, north and south of Bettiah.

III.—The *Sasaram* rock edict, in Shahabad.

IV.—The dedicatory tablets of the *Barabar* and *Nagarjuni* caves—seven in number—in the district of Gaya.

V.—The inscribed rock at *Jaugado* in Gaujam, in the Madras Presidency.

VI.—The inscribed rock at *Dhauri*, about 25 miles due south of Cuttack.

VII.—The inscription of *Aira Raja* in the cave at *Udaigiri*, about 6 miles north of *Dhauri*.

VIII.—The dedicatory and descriptive tablets in the *Udaigiri* caves—nine in number.

3. At a committee held in your rooms previous to this appointment, at which Sir Alfred Croft and Mr. Jobbins were present, it was determined that the casts should be in plaster of Paris, and that the moulds should be brought to Calcutta and worked out.

My deputation commenced on the 15th October, and I was provided with a staff of two modellers, a plaster man, and *khalasi*.

Messrs. Mackintosh, Burn, and Company were to supply me all with the gypsum I wanted, as my plaster had to be prepared on the spot.

4. My first care had been to study the properties of gypsum and the several processes of converting it into plaster. Mr. Brühl, of the Civil Engineering College at Sibpur, helped me in this considerably, and we determined that the Madras method, as described by Dr. Hunter in one of the 1851 numbers of an Art journal published in Madras, was the best.

5. I had seen my modellers at work, but not with satisfaction as to their method: it took too much time; and I consequently devised means whereby a quantity of plaster may be dealt with at once and efficiently.

6. Taking the mail train at Howrah on the night of the 15th, I reached Mokameh Ghat the next morning. The railway ferry took us on to the Bengal and North-Western Railway line at Semaria Ghat, and a day's run brought us into Bettiah.

7. In Champaran there are two pillars bearing identical edicts with those on the Allahabad and Delhi columns, one 20 miles north, and the other 21 miles south of Bettiah. The villages in which they stand are both called *Lauriya*, and a second local name is necessary to distinguish them. Near the northern pillar there is the old ruin of the fort of *Navandgarh*; near the southern column are the large market village and the Mahadeo temple of *Araraj*. The two Lauriyas are distinguished by these names respectively.

The simple term *Lauriya* would imply the *Navandgarh Lauriya* by reason of its being a larger village, its having a post-office and a police outpost, and of the main road to Nepal passing through it. The *Araraj Lauriya* stood first in the order in which I should take the inscriptions, and there I first went.

The two *Lauriyas* are reached from Bettiah. I rode to *Barharwa* on an elephant; hence to the column at *Lauriya Araraj* in a bullock coach.

8. The Sub-Deputy Opium Agent, Mr. Bean, asked me down to *Barharwa*, a village four miles west of *Araraj* and the head-quarters of his agency. I found every convenience for my work of preparation here, and I have reason to thank Mr. Bean for the facilities he afforded me.

The rains and floods had just before breaking made traffic difficulties at Mokameh Ghat somewhat serious. My gypsum had not reached Bettiah, nor my tents. The latter I had determined to leave at Bettiah till I went north, as tent equipage was already at my disposal.

The work of grinding and sifting gypsum got on apace. An oven had been built in deference to the wishes of my modellers, who were not acquainted with the boiling method (as the Madras process is termed), and which was finally adopted.

A few canisters of plaster being ready, and the weather permitting, we went into camp at *Lauriya Araraj*.

9. The *Araraj* column stands just by the threshing-floor of the village. It is a sandstone monolith  $36\frac{1}{2}$  feet high and 120 inches in girth at the inscription. The southern side still retains its beautifully polished surface; on the other side a lichen has slightly abraded it. The inscription is intact.

The work before us was much heavier than we had imagined, and it took proportionately longer doing.

On the 21st November I had the satisfaction of seeing the inscribed

portion of the column in a plaster jacket, and of stripping it the same evening.

10. As they now lie in the Museum, these mould plaques are curved slabs of plaster of Paris measuring, most of them, 23" × 15", and a little over an inch in depth, enclosing a piece of wire netting bound in an iron frame. Each has been barked from the column after being blocked on to it by pouring the liquid plaster into a cell, the inner side being the inscribed stone surface; the outer a stout sheet of tin, the net being suspended in the hollow. A rubber tube led the plaster quietly to the bottom of the well, thus saving much laborious manipulation. These I brought into Bettiah and left there till my return from the northern *Lauriya*.

Among other objects of interest shown me by Mr. Gibbon at Bettiah were a few stones from the coping of a well near *Tribeni*, which bore the honeysuckle ornament of the Erectheum, common to several Asoka columns, and of which he permitted me to take casts, which I have with me now at the Museum. He also arranged for my *dák* to *Lauriya Navandgarh*.

11. At *Lauriya Navandgarh* the work was soon in train. *Araraj* experiences had taught us some lessons, and we saw the plaster gradually covering the inscribed portion of the column in regular slabs.

This pillar is somewhat smaller than that at *Araraj*; the latter is massive, and its capital, if it had any, was long since lost. This is the more graceful of the two, and is surmounted by a lion capital. The shaft and inscription are in the same condition as that at *Araraj*, and in the same material. The couchant lion faces the rising sun. He sits on a circular abacus, the rim of which is girdled by a string of *hans* (the sacred geese of the Buddhists). This rests on a cable string-course which crowns a Persepolitan lotus-capital or terminal, whose gracefully drooping petals end just outside an egg and dart ovolo, the entablature finishing below in a second cable string-course. The design and workmanship disclose both knowledge and power. The jaw of the lion has been destroyed.

12. I had a *rajmistri* go up to the entablature and mould off a portion of the goose frieze and of the terminal, so that when the column is set up in the Museum it will not end quite abruptly.

13. At the *Navandgarh Lauriya*, while examining one of the ancient barrows which characterise this village, I found two belts of iron in the same prependicular axis, from which I surmised they must have bound the earth end of some tall pole. It is probable the report noted by General Cunningham regarding an iron coffin may have had its origin in some such find. From here I returned to Bettiah by elephant, and

stayed at the dāk bungalow till my cases were despatched to Calcutta. There were 86 moulding pieces in 12 cases.

14. My next journey was to *Sasaram*. Travelling back by rail to Mokameh, I joined the East Indian Railway regular line at Bankipore, whence 32 miles to Arrah.

At Arrah the Sone Canal has a terminal lock. It is the headquarters station of Shahabad. A contract steamer plies the canal to Dehri, in which I travelled the 51 miles from Arrah. The remaining eighteen miles I had to drive to *Sasaram*. I arrived there on the 31st December, and on New Year's Day I had the mould of the rock inscription completed.

Where the Kaimur range of hills ends in the sandstone cliffs near *Sasaram*,—on the crest of its last peak, some 400 feet above the surrounding country, may be seen the *chirāg* of a Muhammadan fakir of a dark night. In the day the white tomb of a Muhammadan saint gleams above it. The *chirāgdān* (or candle-stick) stands in a small recess on the broken side of the cliff towards *Sasaram*. A wall is built on either side of it not quite five feet high. Two ledged rocks make an angle pointing inward, where the *chirāgdān* on a third rock stands at the apex. The ledge on the left hand bears an inscription 42 inches long and about a foot deep. It is an extra edict of Asoka, and is important for the figured date it bears, 256 years of the Nirvana.

From below, the entrance to the cave may be observed as a small square hole in the hillside near the top. The inscription itself is scarcely known, even in *Sasaram*.

15. So soon as my *Sasaram* case was despatched, we returned to Bankipore to take the Gaya railway, which has its junction here with the East Indian Railway.

Gaya is 57 miles—a three hours' run from Bankipore. I made it my base and sent out my camp to the Barabar hills, 15 miles north. The little station of *Bela* is 12 miles up the line from Gaya—45 miles from Bankipore; it stands abreast of a group of hills. The nearer one, *Kauwā Dhōl*, with its grand *tor* surmounting it, makes a very picturesque mass. A road takes one east from Bela, past this hill and the hill next it, where it norths and skirts it at its eastern extremity; then turning east again, passes the *Barabar* hill-path and the very holy *Patal-ganga* well, which receives the perennial waters from a *Barabar* spring. Again it recurves northward, crosses a field and reaches the *Nagarjuni*, and ends at the stair leading to the milkmaid's cave. Round the *Nagarjuni* hill, either way, paths will lead one to the two caves behind, among detached boulders.

16. The locality about the *Barabar* hills is one of the Holy Places of the Buddhists.

Here, over the dome-like tops of an outcrop of granite, has been cut a stepped-path which leads to the caves which were at one time an important centre of Buddhist devotion. Long granite rocks with domed roofs run north-east and south-west. In one of them three chambers of some size have been excavated, each with its own door, which is recessed considerably into the rock, to allow the perpendicular walls of the cave to be a safe distance from the outer contour of the mass. I had to bring away moulds of the dedicatory tablets to each of these caves, and to make photographs of them. This was soon done. Of the caves, the one with the most imposing exterior is least finished inside. The work here seems to have been abandoned on the workmen coming on a fissure of more than usual dimensions, but the other two caves and the entrance to the third, and a good part of the *Lomas Rishi* cave, too, have their walls and roofs highly polished. The glass-like polish given to these surfaces has been the admiration and wonder of ages.

17. The doorway of the *Lomas Rishi* cave represents the entrance to a handsome hut-chapel, the arch being enriched by a frieze of elephants, the space surrounding it being filled with an elaborate wainscotting. The door has sloping jambs, Egyptian-like. The rock is a quartzose gneiss, and where the elephants are carved, a whiter stone makes the ornament very effective.

18. The *Sudama* cave, called also *Nyagrodha*\* or Banian tree, has a perfect chamber terminating in a *Chaitya* chapel, the whole circular dome being carefully made and highly polished.

19. The third cave in this rock is on its other face. The *Karnachopar* is a single chamber. It bears a very much worn tablet outside, on which I was able to trace the representation of a fish which does not seem to have been observed before. In the doorway, too, there is some fine lettering (comparatively modern), and a word or two in the still undeciphered shell character. Another cave in this range of hills lies east of this group and opens southward. A small vestibule of polished gneiss or granite (as it is commonly called) leads to an unfinished inner *Chaitya*—a very small one. The inscription, being in the polished recess, is in excellent preservation except where viciously chiselled out.

20. On either side of this rocky ridge there is a plain which would hold a large assembly. To the north-east there is a shallow tank beyond which is an extensive field from which the hills rise up a few hundred feet, and which is crowned with a Hindu temple of the *Siddheswara linga* referred to in a later inscription in the *Vapiya* cave.

\* "*Nigoha Khubha*"—Banian tree cave, according to General Cunningham. It seems that caves were often named after some tree growing near by *e. g.* *Nyagrodha*, the Banian tree; *Pippali*, the Pipal tree; *Saptaparṇa*, a septafid tree.

21. Not far from here, about a mile or more by road, is another group of hills of the same material. Here there are three more caves which form the *Nagarjuni* group. The *Gopi* cave is very picturesquely situated some seventy feet above the plain. It is a large vaulted chamber, nearly fifty feet long. Both ends are circular. It is approached by a flight of stone stairs, but a small crenelated brick wall completely hides the door. Masses of granite boulders are fantastically piled up over the cave roof. I am sorry to say I did not obtain a photograph of this very picturesque spot owing to the failure of my apparatus—it had been too much in the hands of coolies of late.

22. The following list particularises the seven Magadha caves:—  
The Barabar caves. 1, 2 and 3 dedicated by Raja Piyadasi—

1. *Sudama* cave. [The *Nyagrodha* or Banian tree] 33 feet  $\times$  19; vaulted, 12 $\frac{1}{2}$  feet high. Inner domed chapel: 18 feet in diameter: two lines of inscription record its gift to mendicants. 251 B. C.
2. *Viswa-Jhopri*. Vestibule 14  $\times$  8 $\frac{1}{3}$   $\times$  6 $\frac{1}{2}$  high. Inner circular chapel, irregular, 11 feet diameter at its widest. 251 B.C.
3. *Karna-chopar* (on the north side of the rock), 33 $\frac{1}{2}$  feet  $\times$  14; vaulted, 10 $\frac{3}{4}$  feet high. Single room. 244 B.C.
4. *Lomas Rishi* cave. The same dimension as the *Sudama* cave; unfinished ceiling and floor, domed chapel unfinished. No Asoka inscription.

The Nagarjuni caves. Dedicated by Raja Dasaratha, a grandson of Asoka, in the year 218 B.C.—

5. *Gopika* (or milkmaid's cave). Single chamber 46 feet 5 inches  $\times$  19 feet 2 inches. Vaulted, 10 feet 6 inches high with circular ends.
6. *Vapiya* cave. Vestibule 6 feet  $\times$  3 feet  $\times$  5 $\frac{1}{2}$  high, room 16 $\frac{3}{4}$  feet  $\times$  11 $\frac{1}{4}$  and 10 $\frac{1}{2}$  feet high, vaulted. So named from a well near by.
7. *Vadhathika khubba*. Is in a cleft of the *Vapiya* rock, west of the cave. It is a small chamber with a narrow entrance. Inside, a small brick partition has been built with a very narrow entrance.

23. Completing the work at my *Barabar* camp, I return to Gaya, and an opportunity presenting, I took what spare plaster there was to *Bodh Gaya*, and took moulds of some objects of allied interest—an inscription on the altar, its honeysuckle and goose ornament, a quadrant of the *Vajrāsan*, or adamantine throne, and of a quadriga chariot of the sun on one of the pillars now in the Mahanth's house.

24. I was also able to secure a photograph of the temple with a

characteristic group of the Mahanth and his college of *chelas* in the foreground.

Preparations for my return to Calcutta complete, I was just leaving Gaya, when a packet was placed in my hands requiring me to go into the *Rajgir* valley to bring away casts of the long, rambling inscription in the rocky roadway, in what Prinsep has called the "shell" character. I had a reserve cask of gypsum in Bankipore, which I sent on to Bihar. I stayed a day here to consult Mr. O'Donnell, the Magistrate and Collector of Patna, as to the space the inscription occupied, that I might not run short of material eventually. No one, however, seemed to have any idea of the extent of surface covered by the inscription by actual measurement.

25. From Bankipur I traversed the ground between there and Patna. Dr. Waddell identifies this space with the ancient Pataliputra specifically, and I followed the sites consecutively as he details them. Some objects of note and interest lay on the way in modelling and sculpture. In clay there was an unique model of a hill. When Mahendra, the son of Asoka, was converted to Buddhism, during the intense reaction which took place about this period in the religious expression of the people, he sought the valley of *Rajagriha* for refuge, and the cave of Buddha on *Gridhrakūta* for meditation. To wean him back to Pataliputra, an artificial hill was built on this spot, and its ruin still retains the name of *Bhiknapahāri* (the mendicant's hill), the *mohulla* being called *Mahendra*. On *Bhiknapahāri* stood this clay model not so very long ago. Its purpose was evidently to supply the workmen with an idea of the hill as it should be made, and I determined while in the *Rajgir* valley to discover any resemblance which might exist between model and prototype. It has been an object of worship from time immemorial, and owes its preservation to perennial renewals.

There was some sculpture, too, a caryatid figure of Maha Maya with alto-relievo figures on either side, and a sculptured coping which I saw, belonging to the period of Asoka, and this is absolutely all that is left above ground of the stone-built palace of Asoka, or the court of Chandragupta (*Sandracottos*).

26. A traveller has to take *Rajgir* from Bakhtiarpur, 28 miles nearer Calcutta than Bankipore. A mail coach here takes one 19 miles due south to Bihar, where there is an isolated hill of quartzite, once occupied by Buddhists. From here the Subdivisional Officer, Mr. Gupta, drove me down to *Rajgir*. The road strikes south-west. We left Bargaon at the 7th mile-stone, and turning due south rode through the large village of Silāo (renowned for its sweet pastry); and the lesser one of Panditpur. Here the bar of hills enclosing the *Rajgir* valley, becomes



more distinct. Another mile (the fifteenth) and we were in the modern *Rajgir*. This too we pass, and through the ruined fort of old *Rajgir*, the capital of Magadha before Asoka's time. The walls and ramparts are still from 20 to 50 feet high. Here we halted at the inspection bungalow. Mounds of ruins lie between us and the valley, while right and left are level fields.

As we look southward into the valley, from either side of the emerging stream rise two hills. To the east is *Vijula*, to the west *Baibhār*, while inside is the long valley of 42 miles which reaches from *Giryak* (14 miles due south from Bihar) to *Gaya*. The pass through this valley is the only traversed spot in its whole length.

In the *Rajgir* valley I found the inscription to straggle over a space of nearly 200 yards, and to consist of 35 patches, the large deep letters being cut into the floor of a sparry rock, which had been chiselled down to form a roadway 20 feet wide to the *Bawanganga* defile. The road led from the southern gate of old *Rajagriha* and the *Nekpai* embankment to the palace of *Jarasandha* near where the *Bawanganga* debouches over a rocky defile into the *Panchānan* river.

27. The "shell" character is still a puzzle to philologists. Most likely it is a cypher for the initiated only, which was in vogue among dispersed Buddhists during the 7th and 8th centuries. General Cunningham, speaking of some of these characters found on a pillar at *Rajaona*, says as to their readability, "I have already made some progress towards it." He did not know of the *Rajgir* inscriptions, and does not mention those in the *Son Bhandār* cave in this valley.

28. My workmen were soon on this inscription, and made over eighty moulds without covering the whole inscribed surface. I made tracings of the rest, and having taken bearings and distances, so as to enable me to lay the inscriptions down relatively as they lie on the roadway, I had them packed for Calcutta.

29. During the time I was here, I was able to visit the sites of chief interest in the valley.

The valley of *Rajgir* is all holy ground to the Buddhist.

The sacred feet of Buddha have trod all its paths, his presence has hallowed all its caves, and his touch made holy all its streams. Nor to the Buddhist alone is this holy ground. The Jain is everywhere where the Buddhist has been, and his symbols and *tirthankaras* occupy all the high places of the Buddhist. To the ordinary Hindu, too, a place sacred to one sect is sacred to him also. The Buddhist pillars of Asoka enter into the Pantheon of the Hindus of each locality as their Phallic emblem. Images of Buddha, and Chaityas from his ruined temples, are everywhere to be found enshrined in groves and holy places. Buddha

himself is absolutely unknown, but his image is worshipped variously; indeed, in one locality, the site of the Nalanda monastery, his image is worshipped as *Rukmini*. Elsewhere a traditional worship has come down, and I have seen his statue garlanded and milk poured over its mouth—vermeil and redlead touching up every prominent feature, as it also does with every other object they hold sacred.

30. The objects of interest in the *Kajgir* valley, besides the shell inscriptions, are:—

- 1st.—The hot springs; where Brahmans have prepared bathing places and built small temples, which make a very picturesque group at the entrance of the valley.
- 2nd.—The basement known as *Jarasandha-ka baithak*, immediately above these temples.
- 3rd.—The *Pipolo* cave; where Buddha used to sit in deep meditation, after his midday meal. Originally it was a pit from which stone was quarried for the basements.
- 4th.—The Great Northern Caves.
- 5th.—A ruined temple of Mahadeo.
- 6th.—The *Son Bhandār* cave.
- 7th.—The cyclopean walls and platforms and the *Nekpai* embankment.
- 8th.—The causeway to *Sailagiri*, with the two stairs leading one to Ananda's cave and the other to Buddha's.
- 9th.—The caves in the *Sailagiri* rocky eminence,—called *Gridhra-kūta*.

31. Ascending the *Baibhār* hill we pass several basements and the remains of two stupas. Continuing, we pass three Jain temples and come to a fourth. Here, descending a mountain path, a few yards, we come to another basement, and crossing on to a natural platform, just north of this temple, we are immediately in front of the Great Northern Caves. These caverns pierce the hill horizontally for a depth of fifty feet and more, leading into cross-galleries running at right angles to them for thirty or forty feet. Many of the minor recesses near this may be taken as caves. It is a mile from the *Pipolo* cave, in the northern shadow of *Baibhār*; consequently it answers the precise description given of the *Saptaparna* cave by the Chinese traveller Fa Hian, so far as position is concerned. Of the tremendous labour with which it was converted into an assembly hall for the 1st Buddhist synod, where 500 Arhats met to discuss the future of Buddhism, there is no trace. The stairs, if any, have long since disappeared; of embellishment there is none. A small paved space exists at the entrance of the principal cave, but this may have been made at any time.

32. Returning to the temple and descending the hill a few yards on the opposite side, we find the ruins of an old temple of Mahadeo, where two *lingas* have at one time each claimed devotion from the worshippers. A few pillars are still standing, not very perpendicular, but nothing of the original exterior remains.

33. Returning to the foot of the hill, and following its base near the stream which skirts it, a little less than a mile brings us to the *Son Bhandār* cave—the treasury of gold. This is an artificial chamber, 34 feet by 17 nearly, with an arched ceiling of  $11\frac{1}{2}$  feet. The polishing of the interior may not compare with that of the Barabar caves, but still it is noteworthy. Outside the cave there is a level space which gradually merges into the plain. At one time the cave was embellished, and stucco still adheres to the ceiling. A window lights up the cave at the end, away from the door. Outside and inside there are and have been inscriptions dating from the remotest antiquity. Some are readable, others barely so. A very interesting Pali inscription is lost from over the door. Three or four letters remain of it. Of the shell character, too, there are two or three examples.

The chief interest attaching to this cave is its supposed identity with the *Saptaparna*. The meaning of this word is seven-leaved. Not very far outside is to be found a septafid tree—the *bombax Malabaricum*—or common *simal* tree, whose bloom throws a crimson note into the March landscape everywhere in India. The leaves group in seven from a common centre, and the term would scarcely apply to a row of seven, as has been proposed for what I believe is the great northern cave. The name *Nyagrodha*, too, has been applied to this cave, as it is to one of the Barabar ones which especially was a sanctuary; *Nyagrodha* meaning the banian tree. But the *Son Bhandār* cave has outside, a few feet above the door, a series of mortice holes, which must at one time have supported a roof covering a portion of the space in front of the two caves. There are also stairs cut in the rock leading up to a seat midway between this cave and its companion.\*

This cut stair, the several mortice holes, and sundry other chisellings on the rock-face having a constructive purpose; the general embellishment of the cave, and its expensive polishing, could only have been done by royal command. Its correspondence with the Burmese account of the *locale* of the synod, as translated by Bishop Bigandet, throw much evidence into its favour as the *Saptaparna*.

34. Another cave, too, claims this distinction—the *Pipolo* cave at

\* Originally there were two caves of almost similar dimensions; the one to the right has been blasted down by treasure-seekers, the name of the cave being taken too literally.

the foot of the *Baibhār* hill. It is near the *Asura's* house (*Jarasandha ka buithak*). Ceylonese authorities claim it as being the cave which corresponds most to the description in the *Mahavanso*.

The authority mostly in favour of the *Sou Bhandār* being the *Saptaparna* is General Cunningham, while Mr. Beglar claims this distinction for a cave I have been unable to discover or identify on the north of *Baibhār*, except it be for the series of the great northern caves I have mentioned. Mr. Fergusson has accepted Mr. Beglar's idea, without being certified as to the existence of the cave described by him.

35. Great interest in the ruins of the ancient city of *Rajagriha* attaches itself to the almost cyclopean walls, embankments, and highways which endure to the present. The highway leads over the embankments and city walls to the crest of the hills forming ramparts which an invading army of old would have found a complete obstruction. One wonders who would seek this barren waste, whose stony ground produces nothing but thorn and scrub bamboo, where trees occur at great distances apart and are all stunted. Yet at one time we hear of these embankments, to which a miraculous origin is ascribed, converting the country into a smiling garden and the city into a famine-proof granary.

36. We hear, too, of King Bimbisara and his chariot—how he had a highway built up the side of *Chatagiri* to the rocks of *Sailagiri*, and how he went in state to hear the words that Buddha had to say for the comfort of humanity; for among these rocks which overhang so and threaten the timid, there are crevices and caves which were holiest places to the successive bands of Buddhists who have sought refuge here, where the great teacher lived and taught. From these rocks, right up to the very crest of *Sailagiri*, were built *stupas* and *vihāras* which were made waste and laid low, when a newer religious fervour directed its hate towards Buddhism,—in its turn to be forgotten for many a century past.

37. I traversed this highway several times—noted the stupa built right in the road, which marks where King Bimbisara dismounted from his chariot, and where again, on arriving at the upper flat in front of the caves, another stupa records his sending back of the crowd, if we take Fa Hian's account to guide us. Here, crossing over the boulders lying in the now dry bed of the mountain torrent, I was able to again follow up the old road, which leads to the two principal caves by a *direct stair to each*, and which I was only able to discover after having the jungle cleared for two or three days. Some six or seven caves, none of any size, exist here. The rocks having naturally fallen into their present position, which I should say is barely different from what it was

twenty-five centuries ago, and which have not been touched by the chisel for any purpose whatsoever, in vain I sought some stone-cut record of the past. Statues shattered and mutilated of the Buddha I found here, but nothing more. There were bricks all over the place; a stucco rosette in one of the caves shows that it had been plastered and embellished. Here, too, is the great stone fronting the cave Ananda occupied, whereon the Vulture Mara sat and with outspread wings terrified his soul, and there is the kindly crevice through which the comforting hand of Buddha came and rested on his shoulder, divesting him of fear. The very spot where I placed my not irreverent camera to record the present condition of the cave is where the vulture sat who gave the name *Gridhrakūta* to this group of caves.

38. Here it was that Mahendra, more than two centuries later, sought refuge in Buddha, and the small clay hill I saw at *Mahendra* near Patna, is a model of this hill. The centuries between, and its perennial renewings, have altered its outline in detail only. The slanting highway reaching from the foot of the hill to the cave level opposite has been worn down to almost a level road at its water-course end, where one would naturally imagine the approach to be eminently difficult. The caves, too, are rightly placed behind the wall of rocks, the mud representing which seems here to have been piled higher as the road wore down. So there is an unmistakable similarity, although the likeness may not be at first sight obvious.

39. I returned to Calcutta in the middle of February, and after seeing all my moulds stored away in the Museum, I took up my southern tour.

40. There remained to do—

1st, the Asoka inscription at *Jaugada* in the Madras Presidency;

2nd, a rescript of the same edicts at *Dhauri*;

3rd, the singular record of self-laudation by the Aira Raja over the cave entrance in *Udaigiri*; and

4thly, a number of small dedicatory tablets from various caves of the *Udaigiri* and *Khandagiri* group.

41. I booked by the *Calna* for Gopalpur, a seacoast town of the Madras Presidency, about 350 miles from Calcutta. It is the port of the Ganjam district; it is also the summer resort. Berhampur is the sadar station. Ganjam is but a small station. I was at Gopalpur in the first week of March, and immediately made for *Jaugada* by way of Berhampur. The nearest post-town to *Jaugada* is Purushottapur, just the other side of the *Rishikulia* river, and the nearest village to the fort is Pandya; the whole journey from Gopalpur being about 41 miles. The assistant tahsildar was of great help to me at *Jaugada*. While the

plaster was preparing, I availed myself of an invitation from Mr. Minchin at *Aska*. (Mr. Minchin, I may note, is the gentleman who has identified himself with the manufacturing industry of the country, to whose enterprise is due the prosperity of the present sugarcane cultivators.) I was in some hope of seeing a photograph of the *Jaugada* inscription when it was intact in 1857. Mr. Minchin took the negatives home with him, and left them at the India Office at the request of the Madras Government. Nothing has since been heard of them. He was, however, instrumental in drawing the attention of Government to its possible defacement from the chipping off of the rock-surface.

I was not, however, to see them, as Mr. Minchin was disappointed to find he had not a copy left.

42. All that remains of the ancient fort of *Jaugada* is an immense enclosure within a moat and a running mound, 15 to 20 feet high, which is entered at several openings where gates have been.

Within this square enclosure two or three piles of granite rocks are most picturesquely grouped, and west of the glen, where the principal structures have been, indications of which still exist, an immense rock rises up with a circular outline, on the perpendicular face of which Asoka's edicts have been engraved. There are two sets of edicts; the left-hand tablet bearing the edicts common to the Girnar, Shahbazgiri, and Khalsi rocks, and the right-hand ones, enclosed within a line border, bearing symbols at the corners—local edicts addressed to the officers governing the state of *Samāpā*—a name unidentified in the ancient geography of India. Most probably *Samāpā* was a city on the banks of the *Rishikulya* close by. Magnificent banian trees haveavenued the road along the riverside, a remnant few of which are still to be seen. The inscription was first brought to notice by Sir W. Elliott, when it was more perfect. An attempt to make an impression of it has destroyed the larger part of the inscription since. There used to be a double-storied house close to this rock occupied by a *jogi*, obscuring the view of the edicts, when earlier sets of photographs of the inscription were taken. It has since been demolished.

43. On my completing this work I came through *Rambha*, at the southern extremity of the Chilka lake and 28 miles from Jaugada, whence I had the pleasant experience of sailing across the *Chilka* lake in a country-boat with a great mat sail. Old Buddhist traditions cling to the water-borne population here. Boats still carry on their prows Buddhist emblems whose purpose or meaning is absolutely forgotten.

44. Coming into Orissa I proceeded to *Khurda*, where Mr. McPherson very kindly made me his guest, and arranged for my travelling and camp at both *Khandagiri* and *Dhauri*; the whole distance from

Rambha including the boat journey being 83 miles. A considerable time was taken up in the preparing of plaster. This gave me some leisure to examine the caves and to select my sites for photographing them.

45. *Khandagiri* and *Udaigiri* are the two hills formed of the sandstone outcrop in Orissa, some 19 miles south of Cuttack and 14 miles east of Khurda.

46. The perpendicular bluffs have been cut into for all the caves. Natural caverns, where the sandstone forms the arched roof of a cave, are frequent. The *Hathigumpha* is the largest of them. The upper story of the *Rāni Naur* Palace cave is a similar arch, for the support of which the pillars placed there recently are quite unnecessary. The sandstone bluffs are in three distinct levels of elevation.

47. *Lowest level.*—In the lowest level are the caves facing south, and seen *enface* from the bungalow—the *Alakapura-jayavijaya* and *Swargapura* (in the second story). An effaced Pali inscription near the elephant frieze (the largest elephant sculpture in these hills) witnesses to its age, while the huge male elephants approaching the arch on either side (they are four-tusked and are tended by female elephants) show the importance of this cave.

The lower story of the *Rāni Naur* Palace cave is on the west of this bluff, and to the east, a row of small caves with a stair leads up to the second bluff.

*Second level.*—In this to the west is the upper story of the Queen's palace; on the east there is the *Vaikuntha* group. The roof of this group and of the *Rāni Naur* form the upper terrace of this bluff.

*Third level.*—North-east of the Queen's palace cave, in the third bluff, we have the *Ganesa* cave, so called from a figure of Ganeśa carved in its inner chamber, near which there is a Sanskrit inscription. The south-west face of the bluff has in its basement the *Hathigumpha*, above which several caves lead up to the platform forming the flat top of Udaigiri hill. The south-east corner of the bluff is broken into a number of detached rocks which are severally excavated into the Snake, the Tiger, and other caves which mendicant Buddhists have occupied.

48. Aira Raja occupied the caves of the *Vaikuntha* group. Inscriptions, fragmentary unfortunately, describe him as a disciple of *Kadipa*, a worshipper of the sun, a mighty Raja (of Kalinga) whose elephant is as a thundercloud. In illustration whereof there is the adoration of the Sun and *Tviratna* by a series of academical figures, which may relate to Kadipa's college of disciples,—heavenly musicians fill the air, while a grandly-proportioned elephant closes the procession. This neglected piece of sculpture is very nearly obliterated. The half

on the other side is quite gone; of what remains I have brought a cast to Calcutta.

49. The *Hathigumpha* in all probability was the *Pilkhāna* or elephant-house. But from its prominent character the rounded brow of the cave has been selected for the laudatory inscription, in Asoka characters, which gives it its importance.

50. Considering the nature of the sandstone—gritty, friable stuff that it is—it is fortunate not to have come under the weathering influences which have obliterated larger-featured sculptures.

51. Most of the dedicatory tablets are obscure and of no importance, save for their ancient character. One—that on the Tiger cave—points to a period when there was a change in religious opinion, and some intolerance prevailed. The Tiger cave is labelled as the chamber of a fierce anti-Vedist.

52. Between the two hills a road now runs where jungle filled the glen, and the stair leading to the cave level of *Khandagiri* gives access to caves unknown when Fergusson visited the place. Here, on the level of the highest bluff of *Udaigiri*, is the *Ananta* cave, opening to the north. Of the Asoka inscription which once described it, little is now discernible.

Mr. Fergusson has attached some importance to this cave, for besides the description of it by Dr. Mitter, and the photographs of the sculptures by Mr. Locke, he had the Commissioner of Orissa ask Mr. Phillips to visit the cave before he was satisfied that all particulars had reached him.

At page 72 of his book on the "Rock-cut Temples of India," under the joint-authorship of Mr. Burgess, he says, referring to the four sculptured tympana inside the arches, two of which are perfect:—"From our knowledge of the sculpture of Barhut, we may safely predicate that in addition to the *Tree* and image of *Sri*, the two remaining tympana were filled, one with a representation of a *wheel*, and the other of a *dagoba*, the last three being practically the three great objects of worship both here and at Sanchi." What I have written in my fuller report, before I saw Mr. Fergusson's book, is to this purpose.

53. The *Ananta* cave has been an important place of worship; Within its inner chamber is a sketch-relief of what has been supposed to be a preaching Buddha. This figure has been accepted by Dr. Mitter and others as a Buddha—probably it is a *Tirthankara* made at a later period; above his head are a row of emblems,—the *trisul* flanked by a shield on either side, and these again each by a tree emblem and then the *swastika*.

This cave, already described by Fergusson, Dr. Mitter and others



had not yet been exhausted of its treasures. The Museum is enriched with casts from two of its four tympana. The worship of the railed *Bodhi tree* and of the auspicious *Sri* account for two. The grime of centuries has concealed the religious significance of the two fractured tympana.

The fourth or left-hand sculpture represents the better half of a composition dealing with the apotheosis of the four-tusked elephant. (It will be remembered that when Buddha was lord of a herd of 1,000 elephants, he carried four tusks, according to a birth story figured in one of the Bharhut sculptures.) The artist here has tried within a limited bas-relief to give every detail of the vast bulk of the lordliest of elephants. The Sun is in attendance, and two female elephants on each side offer their lord a lotus-worship. Much of the right-half with one female elephant is lost.

The tympanum between this and *Sri* shows the quadriga of the Sun *enface*. *Aruna* is surrounded by the heavenly host. The Moon is there in her first quarter, and *Rahu*, too, is largely present. Female attendants minister to *Aruna*. The left-half of the sculpture is partly lost.

54. I am glad to say I have secured casts of these two sculptures.

55. On this *Khandagiri* hill are other Buddhist caves, some with ancient Pali inscriptions. But the Jains have mostly made it their resort. In these caves, or the remains of them, their numerous *Tirthankaras* with their *Saktis* look down from the high position which they occupy on the eastern hillside, while the top of the hill is crowned with a double temple, which was restored during the Mahratta irruption into Orissa.

56. While the work at *Khandagiri* was completing, I went on to *Dhauri*.

In the fork where a tributary enters the *Dyah* river lies an ancient tank—the famous *Kosali-ganga*, regarding the excavation of which interesting legends exist. Probably it is one of those enormous tanks Buddhists have dug wherever they have made a home for themselves. Now much of it is filled up and given over to cultivation. To the west of this tank is an obtruded group of granite rocks, forming the isolated *Dhauri* hill. This hill throws out a spur which reaches the tank, and which, with the northern end of the hill, makes a basin-like valley between, with the *Kosali-ganga* in front of it.

Not far from the dry tank a block of granite flanks the spur, and, on entering the valley at this point, an elephant seems to approach one from out of the domed top of the rock, out of whose solid mass it has been excavated. This is the upper half of the *Asvastama* rock; the lower

north face, which has been polished, bears the inscription of Asoka's edicts.

The local edicts here are identical with those at Jaugada, the city named being *Tosali*. This is considered the same as *Dosara*, on the *Dosaron* river.

57. Between *Dhauri* and *Khandagiri* I had twice to pass through *Bhuvanewar*. I could not help noticing the extreme beauty of some of these ancient temples. Artistic surprises met one everywhere. Naturally, one wonders when he meets grouped together in this remote corner of India, objects of artistic or religious significance peculiar to Rome and Greece, Phœnicia and Egypt. Ganeśa has fruit offerings placed before him on a Delphic tripod; long gaunt figures adorn the great temple, which might have been studied on Cleopatra's Needle; children drawn with a grace, and figured with a freedom which Albani might have envied; statuettes and figures, grouped and singly, which disclose a grace one would hardly associate with Indian sculpture—all the work of the past!

58. Besides the great temple I would name as deserving protective care—

the *Mukteswara* and *Parasurāmeswara*,  
the *Brahmaneswara* and *Bhāskareswara*,  
the *Baital Deul* and the *Raj-Rāni* temples.

Each of these has structural and archæological peculiarities of its own. The first three in this list have been the models for the hundreds of temples which have made Bhuvanewar peculiarly the city of temples.

I returned to Calcutta through Cuttack and *viâ* Chandbally, arriving here on the 4th of June.

A cordial vote of thanks was proposed by Dr. G. A. Grierson to the Government of Bengal for the interest taken in the matter of Asoka Inscriptions in India, which was carried by acclamation.

The PHILOLOGICAL SECRETARY circulated the following table of comparison of selected words and numerals in several Assam languages forwarded by Mr. S. E. Peal of Sibsagar.

*Comparison of some Words in*

"NG" soft, as in "SINGER,"

	I Pronoun.	THOU	BIRD	BLACK
Tibetan, written ...				NAK
Tibetan, spoken ...	NGA {	KHYOD " ED }	B'YU	NAG
Burmese ...	NGA	NENG	GNHET	
Singpho ...	NGAI	NANG	WU	CHANG
Kunung ...				
Kamti ...	KAU	MAU	NOK	NAM
Mishmi <sup>D</sup> M ...				
Miri SHAI'YANG ...	NGA <sub>o</sub>	NA	P'TANG	YAKa
Abor ...	NGA <sub>o</sub>	NA	P'TANG	YAKa
Bhotia LHO ...	NGA		CHYA	NAG
Chang lo ...	{ NGA and JANG }	NAN	KHA	CHANG
Kachari Bodo ...	ANG	NANG	D'AU	ga SAM {
Garó ...	NGA	NA	D'AO	pe NEK
Hill Tippera ...				
Khasia ...	NGA	ME PHA	SIM	I' ONG
Kuki ...			WHA	NIK
Kumi ...	KAI	NAN {	WA WO }	{
Kyaw ...	KIMA	NAMA	WA	
Angami ...	A	NO	P'RA	KATI
Manipuri ...	AINA	NANG	UCHEK	AMUBA

the following Languages.

not hard, as in "ANGER."

EAB	EYE	FISH	PIG	ROAD	WATER
	MIK	GNA	PHAK		CHU
			PUAG	LAM	
NA	MYET	NGA	WET {	LAM LAN }	YE
NA	MI	NGA	WA	LAM	N'SIN
a NA	NE or ME	NA chi		PARA	WANG
HU	TA	PA	MU	TANG	NAM
YERUNG {	MIK A MI aa }	e NGA	EYEG {	LAM LAMBE'U }	a CHYE
NArung {	MIK a MI ng }	e NGO NGA }	EYEG	LAMBE	a SI
Namcho	MIG. MIT.	NGA	PHAK	LAM	CHU
NA	MI ng	NGA	PHAK	LAM	BI
MA NA	} MIG. MIK	NGA	OMA	LAMA	DOI
NA chil	MAK ar	NA tok	WAK.VAK {	LAM RAMA }	CHI
ku NJU	MAK	a NGA			
ka SHKOR	ka kh' MAT	DOH KHA	U SNIANG	ka LYN ti	ka UM
NA	MHE. MIT.	NA {	WAI. WET WOK }	LAM	TUI. TI
ku NO ka NA	a MIK a MI	NGO NGAU	} AUK {	LAM LANG }	TUI
NA {	ME et MI }	} NGWA {	WET VAUK }	LAMM	TUI
NIE	MHI	KO	VOK	? CHA	DZU
NA kong	MIT	NGA	OK	LAM pi	ISING

## Comparison of some Words in

"NG" soft, as in "SINGER,"

	I Pronoun.	THOU	BIRD	BLACK
Lushai— DZO ... ..				
CHIN ... ..			P'AYO	NI
Kacha NOGA ... ..				
Banpara NOGA ZU ... ..	KU and NGA	NANG	AW or O	NAK
Namsang NOGA La sa ... ..	NGA	NANG	VO	a NYAK
Ao NOGA ... ..	NI	NA	OZV	te NUK
Lota NOGA ... ..	{ A. ANA. ANI. }	NA	WO ro	NYIK
Mikir ... ..	{ ICHI & NE ISI }	NANG	WO	a KUK
Dhimal ... ..	KA	NA	JIHA	DA'AKA
Mrung Bodo ... ..			HO	
BATTA of SUMATRA ... ..				
40 Dialects of MALAY ... ..				
HO ... ..	ING	UM	OE	HENDE
KOL Singhbhum ... ..	AING	UM	OE	HENDE
SANTALI ... ..	ING	AM	CHERE	HENDE
BHUMIJ ... ..	ING	AM	CHENE	HENDE
ORAON ... ..	ENAN	NI-EN	ORAK	MOKHARO
MUNDA ... ..	ING	AM	URE	HENDI
RAJMAHAL ... ..	EN	NIN	PUJ	MARGO
ANDAMANI ... ..	DOL			PUTUNGA
	{ NGA NGAI			
AUSTRALIAN ... ..	{ NGAI NGAU			
	{ NGU NGI			
	{ NGIE			

the following Languages.

not hard, as in "ANGER."

EAR	EYE	FISH	PIG	ROAD	WATER
A'NO	a MI	NGO	WO	LAWN	TUI
		HAKA			
NA	MIK	NYA	VAK	LAM	TI
NA	MIT	NGA	VAK	LAM	JO. CHO.
t' NA rong	te NUK	a NGO	AK	LEN. LEM	TZU
é NO	MHYEK	o NGO	WOK o {	LANG o LAM	} o CHU
i NO & AN	MEK	OK	PHAK	TOAR	? LANG
NHA	MI	HAIYA	PAYA	DAMA	CHI
KUNG jú	MA quá	A'A	WA	LAN	TEI
SUPING a	MATA			MOR DO LAN	
TELINGA	MATA	IKAN		GIA LAN	
LUTUR	MET	HAKU	SUKRI	HORA	DAH
LUTUR	MET	HAKU	SUKRI	HORRA	DAH
LUTUR	MET	HAKO	SUKRI	HOR	DAK
LUTUR	MET	HAI	SUKRI	HORREN	DAH
KHEBDA	KHAN	INJO	KIS	DAHARI	UM
LUTUR	MED	HAKU	SUKRI	HORAH	DHA
KHETWAY	KANE	MIN	KIS	SARKE	AM
IKPOKO	IDAL	YAT	ROGO	TINGA	INA
	MI				
	MIL				
	MII				
	MILA				
	MEUL				
	MILL				
	MI				

## Comparison of Numerals

"NG"

	1	2	3	4	5
Tibetan, written ...	G'CHIG	g NYs	g SUM	b ZHI	hNA
Tibetan, spoken ...	CHIK	NYI	SUM	ZHYI	GNA
Burmese ...	TA	h NI t	th ONG	LE	NGA
Singpho ...	Al ma	N'KHONG	ma SUM	m'LI	m'NGA
Kunung ...	TI	a NI	a SAM	aVLI aBRI	p'NGA
Kamti ...	NUNG	SONG	SAM	SI	HA
Mishmi D	KHING	KAI'ING	k'SANG	k' PRI	ma NGA
M		K'NING	k'SAM	km'BRIU	k'LIM
SHAIYANG	TER	NYI	a UM	á PI	á NGA
MIRI	AKO	a NI	a UM	á PI	á NGA
Abor ...	AKO	a NI	an GOM	á PI	a NGO
Bhotia LHO	CHI	NYI	SUM	ZI	NGA
Changlo ...	THUR	NYIK	SAM	PHI	NGA
Kachari BODO	CHE SE	NAI NE	THAM	BRE	BA
Garó ...	SHA	g'NI	g'THOM	BRI	b'NGA
Hill Tippera	kai CHA	REMOI	k'THAM	B'ROI	BA
Khasia ...	WEI	AR	LAI	SAU	SAN
Kuki ...	KIA kar	P'NI kar	TUM kar	M'LI LE kar	ra NGA
Kumi ...	HNAK	NU	t'HUN	P'LU	P'ANG
Kyaw ...	KHAT	NIEK	t'HUM	m'LI	NGA
TAMIU ...	} HOK	NGI	CHAM	P'LI	NGA
? LEMYO ...		PO	K'NA	SE	DA
Angami ...	AMA	a NI	a HUM	m'RI	m'NGA
Lushai	p'KAT	p'NI	p'TAM	p'LI	p'NGA
DZO	HAW	NI	TUM	m'LI	NGO
Chin ...	KAT	g'NA	g'JUM	m'DAI	m'NGA°
Kacha NOGA	é TA	á NI	á JUM	á LI	á GA
Banpara NOGA	van THE	van NYI	van RAM	b'LI	b'NGA
Namsang NOGA	aKA	á NA	á SAM	P'LI p' zo	PaNGO
Ao NOGA ...	é KHA	é NI	é THAM	m'ZOV°	m'NGO
Lota NOGA...	i CHI	hi NI	k'THAM	ph'LI	pho'NGO
Mikir ...	E long	NHE	SUM	DIA	NA
Dhimal ...	MIAD	BARIA	APIA	UPUNIA	MOYA
Mrung Bodo	Mi	BARIA	APIA	UPUNIA	MOYA
HO	MIT	BABEA	PEA	PONEA	MO'RE'
KOL	MOY	BARIA	APIA	UPUNIA	MONAYA
Singbhum	UNTA	en OTAN	man OTAN	NAKOTAN	PANJE- GOTANG
SANTALI ...	MIA	BARIA	APIA	UPNIA	MORIA
BHUMIJ ...	ORT or	MAKIS	TIN	CHAR	PANCH
ORAON ...	ONDONG	IKPAUR	nil	nil	nil
MUNDA ...	OBATUL				
RAJMAHAL					
Paharia					
ANDAMANI					

in the following Languages.

soft.

6	7	8	9	10	20
DRUK THU	b DUN DUN	br GYUD GYE	dGU GUH	bCHU CHUH	NYI SHU NYI SHU
KRU	SINIT	m' KAT	che KU	SI	KHUN
KRU	SYEN	{ SYET } { KYAT }	tai GU	SAN	a NISAN
HOK t'RA k TAM a KENG KENG a KYE TU	TSET k'NIT k'NIT k'NANG DUN	P'NYI P'NYI P'NI GYED	ko NANG NANG k'NIDE GU	EYING } UYING } INGE CHU	SAU NYI. CHU
KHUNG	ZUM	YEN	GU	SE SHONG	KHAI- THUR
RO RA	SNI	JAT	ch KU	JI. ZI	
DOK	SNI	CHET	sh KU	s KANG	CHI- SKANG
DOK DAU	SINI	CHA	ch KU	CHE	KHAI DE
HINBIU	HINIEW	PHRA	KHYNDAL	SHIPHEW KHAD	ARTHEW
K'BUK RU kar	SRE kar	RAI kar	GUO kar KHUA kar	T'SWOR kar SHOM	RU BUK
t'BU	s' RU	té YA	t'KHAU	HORE' {	HORE'LAIK- HORE' t CHOM NEK
o'BUK	s' RI	RUET	KO	to HU om	
WOK	NYET	TSET	CHU	AN	
s'RU	t'NA	t'TA	t KWU	KER	
t'RUK	t'RET {	NIPAN L	M'PAN L	TARA	KUL
p'BOK	p'TSA ri	p'ri EK	p'KWA }	t'CHom	t'CHOM- NI GO
SOK	SI	SE	KO	NGAHA	
s'BUK	s'NA	d'SAT	sh' GUI	g' REO	
á RUK	á NUT	á CHUT	á KU	á BN'	
i BOK	i NGIT	i SAT	i KHU	i CHI	RUAK- NYI
t'ROK	TeNET	t'SET	TuKU	t'RA	METSV.
t'ROK	t'ING t'SCANG	t'ZA	t'KU	t'RO	m'KWI
th'ROK TU	thr' SHI NHI	nir KEP YE	chir KEP KUHA	KEP TE	KEPaKEP E BISA
TURUIA	AIA	IRILIA	AREA	GEL	
TURIA	IYA	IBLIA	AREA	GELEA	
TURUI	EAE	IRAL	ARE	GEL	
TURUYA	SATH	ATH	NAU	DAS	
SEGOTAN	SATGO- TANG	ATE	NAU- GOTANG	DAS- GOTANG	
TURIA	SATH	ATH	NOKO	DAS GO	
CHAH	SATH	ATH	NAU	DAS	



The SECRETARY reported that the election of the Rev. J. L. Peach had been cancelled at the request of that gentleman who intimated that he would be shortly leaving India, and did not expect to return.

The SECRETARY read a circular from the Royal Society of New South Wales, enumerating prizes to be given for original researches on certain subjects connected with Australia. This can be seen in the Society's office.

Mr. C. Little moved that the Society should be registered under Act XXI of 1860.

The following papers were read :—

1. *Rough notes on the Grammar of the Language spoken in the Western Pānjāb.*—By TREVOR BOMFORD, C.M.S., MULTAN.

Communicated by the Philological Secretary.

(Abstract.)

In laying them on the table, the Honorary Philological Secretary, said, I wish to draw special attention to these notes, as one of the most important contributions to our knowledge of the Indo-Aryan Vernaculars, which has appeared during the past decade. Its importance lies not only in the value of the grammar, as illustrating an imperfectly known language, but as supplying a missing link which completes a chain of evidence materially affecting the hitherto accepted theories regarding the classification of the modern Indo-Aryan languages.

The points of similarity which exists between the Kāçmiri and Sindhi languages has been noted incidentally by Dr. Bühler, and by the present speaker, but it has not been easy to explain satisfactorily the evident relationship which exists between them, for till Mr. Bomford's *Rough Notes* were received, the territories in which these two languages were spoken were believed to be separated by many hundred miles of country, inhabited by a population speaking a totally different language—Pañjābī. There was no historical or territorial connexion between these two widely separated, but closely connected, languages.

Mr. Bomford's *Rough Notes* have changed all this. We have hitherto known a so-called dialect of Pañjābī called Multānī, which has been well illustrated by the late Mr. O'Brien's *Multānī Vocabulary*. This has hitherto been localized in the south of the Pañjab, round Multān, in the districts bordering on Sindh, and, as it bore many close points of resemblance to Sindhī, it was assumed, on the information then available, to be a sort of border dialect, through which Sindhī merged into

Pañjābi. Mr. Bomford now shows that what has hitherto been called Multāni, from the place where it was first observed, is not a border language between Sindhī and Pañjābi at all. It is the language of the Pañjāb, west of, roughly speaking, the Jhelum, till it meets the Pashtu spoken west of the Indus. Pañjābi has hitherto been measured by the standard of Amritsar, a town some forty miles East of Lahore, midway between the Rāvi and the Satlaj, and our grammars, dictionaries, and literature have been based entirely on the language of the East of the Pañjāb. The Grammars stated, and it was known as a general fact, that the language of the Western Pañjāb differed from that of the East, but few attempts, till Mr. Bomford undertook the task, were made to investigate the points of difference, and it was too readily assumed that Pañjābi had two dialects,—a Standard and a Western. Mr. Bomford's grammar shows that this is not true. That *Western Pañjābi can in no sense be called a dialect of standard Pañjābi, but is altogether a distinct language closely connected with, and forming the connecting link between Sindhī and Kāçmirī.*

These three languages, Sindhī, Western Pañjābi, and Kāçmirī, can now be classed as forming a North-Western Family of Indo-Aryan Vernaculars, markedly differing from what has hitherto been called the Western, but must now be called the Central Family, and having curiously intimate relations with the Eastern language of Assam and with the Aryan languages spoken in the provinces of Bengal, Bihār and Orissa.

This interesting fact opens out wide ethnological questions, on which I am now engaged, and I hope, at an early date, to be able to place the result of my researches before the Society.

This paper will be published in the *Journal*, Part I.

2. *On a case of Aghorpanthism from the Sāran District, Behar.*—By BĀBU SARAT CANDRA MITRA. Communicated by the Anthropological Secretary.

3. *Eastern Nagas of the Tirap and Namtsik.*—By S. E. PEAL, Esq., These papers will be published in the *Journal*, Part III.

4. *Susuniā Rock Inscription of Candra-varman.*—By NAGĒNDRA-NĀTHA VASU.

This inscription has been found on the Susuniā hill, in the district of Bānkurā, 12 miles to the north-west from the head-quarters and 17 miles south-south-west from the Rānigañj Station of the East India Railway. Passengers travelling by that Railway past the stations of Durgāpur, Ondal and Rānigañj, see the hill with its two peaks towards the south-south-west verge of the horizon, like the head and back of a huge elephant facing the west. The whole hill from the

base to the highest summit is covered with a dense jungle of various forest trees, some of which may produce good timber; but the hill being subject to the usual annual burning, the trees suffer much from the fire, and are little used except for fuel and for the framework of the thatched houses.

This hill together with Bilāri-nāth, Pachette and several other hills, forms the eastern outskirts of the Vindhya ranges, the Susuniā hill being the easternmost extremity. The whole hill is formed of a fine kind of sandstone which is especially valued for paving purposes, known in the trade as Burdwan paving stones. A few years ago its quarries brought a considerable sum to its proprietors, but during recent years stones of a superior quality having been dug at a place near the B. N. Railway the Susuniā stone trade has greatly fallen off.

A branch of the Ahalyā Bāi's Road passes by the western side of the hill from Chatnā to Rānigañj. At a little distance to the east from the road and at the south-western base of the hill, there is a perennial spring called Dhārā and some ancient sculptures, the principal one being that of Narasimha (an incarnation of Viṣṇu). An annual fair is held there on the Vāruṇi festival, on the 13th day of the dark fortnight of the month of Caitra. But the chief object of interest to which I endeavour to draw the attention of the meeting is the Inscription on the hill, which though so near to the metropolis and to a first class Railway Station, has not received the notice it deserves from any of our former worthy antiquarians. I here give a brief account of it, which, though insufficient, will, I hope, give an idea as to the nature and contents of the inscription.

I was first informed of it last January, by my friend Bābū Gōṛi Nāth Karmakār, who told me that there was an inscription on the north-east side of the Susuniā hill, which the people of that locality regarded as the work of the Dēvas, written in three lines in three different Dēvākṣaras, *i.e.*, characters of the Dēvas. They also believed it to have existed there from time immemorial, and that none can read it, and that, if perchance some *sādhu* (sage) did come and read it, he would not disclose its contents to the people in general, who are deemed unprivileged to hear its sacred teachings. I at once concluded that this must be some ancient inscription, and requested my friend to send me an impression of it. Accordingly he went to that place, but being unable to procure an impression of the inscription, which he reported to be too large for his materials then at hand, he sent me the annexed hand-copy, with a brief description of the locality, nature of the inscription, &c., promising, however, to procure a faithful impression in ink when required. Trusting to get it shortly I have ventured to make the copy and my reading of it, the subject of my present paper.

The spot, where the inscription is situated, is on the north-eastern side of the hill nearly half way to the summit, above a perennial mountain-spring which among the people of the locality goes by the name of Yamadhārā or Damdhārā, in order to distinguish it from the more important spring Dhārā to the south-west extremity, which has been already mentioned. The place commands the view of a tract of land towards the north as far as Rānigañj, spotted with innumerable villages, ponds, gardens, cornfields, jungles, &c. Tradition runs, that this place was the grotto of Virūpākṣa Ṛṣi, who lived there in ancient times. Some also believe that even now he lives invisible in the mountain, and others say that some fortunate villager sometimes descries him as an old man with a long white beard and grey hair, roving early in the morning over the hill bright as the sun, singing angelic songs, but vanishing at the approach of man.

The inscription is on the vertical side of a cliff facing the west. The surface is smooth and there are no fissures visible. The inscription is written in three lines, with a symbolic ornamented circle at the top. Almost the whole is in an excellent state of preservation. The letters are cut deep and clearly by the hand of a skilful engraver. The average size is nearly 4." The characters belong to the class which Dr. Fleet calls 'the North Indian Alphabet of the 4th century A.D.' All the letters closely resemble those of the 'Meherauli Posthumous Iron Pillar Inscription of Candra,' first brought to notice in our Society's *Journal* in 1834, and subsequently published in other numbers, and lately by Dr. Fleet in his *Corpus Inscriptionum Indicarum*, Vol. III, plate XXI A.

In respect of orthography the only points deserving of notice, are the doubling of *k* followed by *r*, as in line 1 in *Cakṛa-svāminah*, and the doubling of *m* preceded by *r*, as in line 2, in *patēr mmahārāja*. The language is Sanskrit and the version prose.

The circle at the top with its adjuncts represents, I think, the bright discus (*cakra*) of Viṣṇu, whose name as *Cakra-svāmin* appears at the commencement of the inscription.

Regarding the posthumous inscription of Candra in the Meherauli pillar, Dr. Fleet says:—

'My own impression at first on independent grounds, was to allot it to Candra-gupta I., the first Mahārājādhirāja of the family, of whose time we have as yet no inscription, and I should not be surprised to find any time that it proved to belong to him. The only objection that I can see, is that it contains no reference to the Indo-Scythians, by overthrowing whom the early Guptas must have established themselves.' (Fleet's *Corp. Ins. Ind.* III. p. 140 n.).

But it appears to me that the *Candra* of the Meharauli pillar, is no other than the *Candravarman* of the present inscription. This conjecture is supported by the fact, that *Candra* of the Meharauli inscription was a Vaiṣṇava (worshipper of Viṣṇu) who had erected a *dhvaja* or standard of the god Viṣṇu as the inscription states, and that he had carried on war with the kings of Vāṅga (Bengal), and, crossing the seven mouths of the Sindhu (Indus), had conquered the Vāhlikas of Bactria or Balkh. Now in order to fight with the Kings of Vāṅga, probably he had to pass over the region in which stands Susuniā hill, and it may be surmised that like the *dhvaja*-erection, he symbolized the *Viṣṇu-cakra* on the Susuniā hill, and left the inscription to commemorate it.

In the Allahabad posthumous pillar inscription of *Samudra-gupta*, he is said to have defeated *Candra-varman*, a powerful king of the North India. This again leads us to imagine that *Candra-varman*, son of Mahārāja Siddha-varman, styled as the Lord of the Puṣkara lake (in Ajmēr), of the present inscription reigned as a powerful king, and at one time waged a furious war throughout the whole of Northern India, from Bengal in the east to the Punjab in the west, and at last was defeated by *Samudra-gupta*.

*Transcription.*

- |   |                                                |
|---|------------------------------------------------|
| 1 | चक्रस्वामिनः दासग्रेणतिस्रः                    |
| 2 | पुष्कराम्बुधिपतेर्महाराजनीसिद्धवर्मणः पुत्रस्य |
| 3 | महाराजनीचन्द्रवर्मणः कृतिः ।                   |

*English Transliteration.*

1. Cakra-svāmiṇaḥ dāsāgreṇātisr̥ṣṭaḥ.
2. Puṣkarāmbudhi patēr mmahārāja-Çri-Siddha-varmmanaḥ pu-trasya.
3. Maharāja-Çri-Candra-varmmanaḥ kṛtiḥ.

*Translation.*

Dedicated by the chief of the servants of the Lord of the discus (Viṣṇu).

The work of the illustrious *Candra-varman*, son of the illustrious *Siddha-varman*, the Lord of the Puṣkara Lake.

5. *Ternary : its divinity.*—By S. C. LAHARRY, ESQ.  
The paper will be published in the *Journal*, Part III.

## LIBRARY.

The following additions have been made in the Library since the Meeting held in August last.

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**PROCEEDINGS**  
OF THE  
**ASIATIC SOCIETY OF BENGAL,**  
FOR DECEMBER, 1895.

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The Monthly General Meeting of the Asiatic Society of Bengal was held on Wednesday, the 4th December, 1895, at 9 P.M.

ALEXANDER PEDLER, F. R. S., President, in the chair.

The following members were present:—

H. K. W. Arnold, Esq., J. C. Bose, Esq., P. J. Brühl, Esq., F. Finn, Esq., Dr. G. A. Grierson, A. Hogg, Esq., C. Little, Esq., Bābu Pañcānana Mukerjee, L. de Nicéville, Esq., J. D. Nimmo, Esq., C. A. Oldham, Esq., Dr. D. Prain, Bābu Mahendranāth Rāy, Dr. P. C. Ray, Paṇḍit Hara-prasād Častri, Bābu Nagēndranātha Vasu, C. R. Wilson, Esq.

Visitors:—C. W. Odling, Esq., Babu Asutosh Ray.

The minutes of the last meeting were read and confirmed.

Thirty presentations were announced, details of which are given in the Library List appended.

The following gentlemen duly proposed and seconded at the last Meeting of the Society were balloted for and elected Ordinary Members:—

J. Kennedy, Esq.,

Charles Swift Delmerick, Esq.

Paṇḍit Harimohan Vidyabhushan.

The following gentlemen are candidates for election at the next Meeting:—

R. Paget Dowhurt, Esq., proposed by Dr. G. A. Grierson, seconded by C. R. Wilson, Esq.



Richard Burn, Esq., I.C.S., proposed by Dr. G. A. Grierson, seconded by C. R. Wilson, Esq.

G. Place, Esq., I.C.S., Judge, Chapra, proposed by Dr. G. A. Grierson, seconded by C. R. Wilson, Esq.

Dr. Arnold Caddy, proposed by Dr. W. J. Simpson, seconded by Dr. G. Ranking.

The following gentleman has expressed a wish to withdraw from the Society.

Dr. O. C. Raye.

The Natural History Secretary read obituary notices of the deaths of Monsieur Louis Pasteur and Prof. T. H. Huxley.

Louis Pasteur was born in 1822 at Dôle, in the Jura. His education commenced at the Communal College at Arbois, and he passed into the *E'cole Normale* in 1843. Here he studied chemistry under Balard, and at the Sorbonne under Dumas, showing remarkable application. It was in the *E'cole Normale*, under Delafosse, that he commenced that study of molecular physics, which led up to his first important work, the investigation on the isomeric crystals of the tartrates and paratartrates of soda and ammonia. This work was interrupted by his appointment as Dean of the Faculty of Sciences at Lille; here the chief industry of the town was the manufacture of alcohol, and Pasteur, desiring to improve it by scientific methods, took up the study of fermentation. The change of subject was not so great as it seems, for in his study of the tartaric salts he had observed cases in which fermentation had seemed due to the presence of a living organism. Now, combining chemistry and microscopy as they had hardly ever been combined before, he succeeded in proving that fermentation generally is due to the action of organisms living in the fermenting substance. More, he showed that each method of fermentation, vinous, putrefactive, or otherwise, was due to a specific micro-organism appropriate to that method. Most important of all, Pasteur's investigations showed that each species of ferment may be isolated and cultivated separately, and in certain instances be so modified by cultivation as to exert but relatively slight influence on substances which it would naturally strongly affect. The most direct applications of these results were, naturally, made in the manufacture of wine and vinegar and later on of beer, the so-called diseases of which, being traced to the disturbing influences of other micro-organisms mingled with those of the true alcoholic ferment, pure yeast, could now be prevented, for instance by the heating process known specially as Pasteurization. Hence accrued a great gain to the wine and beer industries; but the utility of the proof that

fermentations, including the putrefactive, are directly due to micro-organisms, soon received a more important demonstration. The study of the diseases of fermented liquids led straightway to the practice of antiseptic surgery, now so universally applied. Very few years later the whole subject of the complete exclusion of micro-organisms was exhaustively studied by Sir Joseph Lister, and afterwards by others, to the end of the saving of thousands of lives, and the rendering possible of many operations which before could hardly be attempted. Pasteur would have proceeded to carry out in relation to diseases the great general principle that he had established, but now he was forced to change somewhat the nature of his inquiry, being urged in 1865 by Dumas to undertake the investigation of a disease of silkworms in the south of France, which was seriously threatening the silk industry. The existence of "corpuscles" in the diseased insects and eggs had already been reported, and Pasteur, while making a careful investigation of the whole disease, directed his chief studies to these. He found that these disease-germs were passed on in the eggs, and invented a plan of testing for disease in the breeding moths, which, being practically followed, has proved effectual in putting a stop to the plague. After four years spent in investigating this subject, Pasteur had a dangerous paralytic stroke, in consequence of which, and of the miseries of the Franco-German war, which shortly followed, he was debarred for some time from any original work. On the end of the war he first betook himself to a study of the diseases of beer on the same lines as he had adopted in his previous researches on those of wines, and then devoted himself to that field of research in which he has won his greatest fame—the study of those diseases of animals which might be supposed to originate from virus generated by various micro-organisms. Davaine had acquired evidence of the dependence of anthrax on the presence of organisms in the blood of infected animals, but his work was not well received till Pasteur proved its correctness, and then still further extended his researches. Most important of all, besides ascertaining the appropriate micro-organisms of several diseases, he found various means of cultivating these germs; these he separated, multiplied, and tested their influences under various conditions of environment, or after changes had been induced in themselves. Most fruitful was the discovery thus made of the possibility of attenuating, or mitigating gradually, by various culture-processes, the virulence of morbid bacteria till they can without harm be introduced into the blood of an animal which under normal conditions would rapidly succumb to their effects. And it was shown that some of these inoculations had the same effect as vaccination, giving the disease in a milder form and along with it protection against a severer attack.

The principle was first tested practically with fowl-cholera, and then with swine-erysipelas; but Pasteur has also applied it to anthrax, and as all are well aware, to rabies. So far-reaching is it that the debt of humanity to Pasteur becomes immense, even should the efficacy of inoculation treatment yet be considered doubtful in certain cases. But the great bacteriologist's own researches have been cut short, though he has been more fortunate than many in living to see them bear such ample fruit. Though since his paralysis he had enjoyed fairly good health, in 1887, he developed symptoms of heart and kidney disease, and four years ago he had influenza, resulting in yet further weakness. Last winter work was impossible for him, and though he went for the present summer to Garches, near St. Cloud, still with an eye to his labours, in the early part of September he himself appears to have been conscious of his approaching end, and on September 28th that end came.

Of his numerous honours we need only speak here of those our own countrymen have bestowed upon him. In 1856, he received the Rumford Medal from the Royal Society of London, for his researches on the polarisation of light, and in 1869 he was made a foreign member of the Society, receiving in 1874 the Copley Medal, which was awarded to Huxley in 1888. We may congratulate ourselves, as members of the Royal Asiatic Society, on having elected the founder of bacteriology as an Honorary Member of our body during the past year.

Thomas Henry Huxley was born at Ealing in 1825. His scientific training began at Charing Cross Hospital, where he joined the medical school in 1842. Even while here he distinguished himself by a brief notice in the *Medical Times* and *Gazette* of that year in the root-sheath of hair which has since borne his name. Passing his M. B. Examination in 1845, he took the second place in honours in Anatomy and Physiology, and after practising for some time among the poor in London, he joined the Royal Naval Medical Service. Thus he came to occupy the post of Assistant-Surgeon to H. M. S. *Battlesnake* then about to start on a surveying voyage to the South Seas. The voyage, during which the Inner route between the Barrier Reef and the East Coast of Australia and New Guinea was surveyed, and the world circumnavigated, occupied four years. So ample was the use that Huxley made of the opportunities thus afforded, that his communications, and the evidence of ability which they furnished, led to his election into the Royal Society in the year after his return. Two years later, Huxley left the naval service, and in 1856 succeeded Edward Forbes as Professor of Natural History in the Royal School of Mines, a post which he continued to hold till his retirement from all official work

ten years ago. This was not however, his only scientific post. He was twice Fullerian Professor of Physiology to the Royal Institution; and in the same year in which this honour first fell to him, was appointed Examiner in Physiology and Anatomy to the University of London. Four years later, in 1858, he delivered the Croonian Lecture of the Royal Society, choosing for his subject the "Theory of the Vertebrate Skull." For six years he was Hunterian Professor at the Royal College of Surgeons, and twice he presided at the British Association, first in 1862 over the Biological Section at the Cambridge meeting, and eight years later, at the Liverpool meeting, over the Association as a whole. In 1869 and 1870, he was President of the Geological and Ethnological Societies, and for three years he was Lord Rector of Aberdeen University. Elected Secretary of the Royal Society in 1873, he was called ten years later to the highest honour of English Science, the presidency of that body. He occupied the place of Sir Wyville Thomson as Professor of Natural History of Edinburgh, during that naturalist's absence with the *Challenger*, and for four years acted as Inspector of Salmon Fisheries. All his official posts, however, as above stated, were resigned by him in 1885, after which he retired to Eastbourne; but more than six years after his retirement, he received the dignity of Privy Councillor. His honorary degrees and memberships are too numerous to mention, though it must here be remarked that he was elected an Honorary Member of the Royal Asiatic Society of Bengal as early as 1872. After his retirement, Huxley lived a quiet but by no means inactive life, but latterly his health failed, and after more than a year's illness, he died on June 29th, 1895. His work lay in more departments than one, and in each of these he occupies an exceptional position. As Biologist, whatever his rank will in the future be decided to be, he will at any rate be reckoned as one of the foremost of the century. Of wide interests, he undertook research in many Invertebrate and Vertebrate groups, and shed enlightenment on all. Most noteworthy, perhaps, was his work on the Comparative Anatomy and classification of the Vertebrata, to which he paid particular attention. In the second place, as a philosophic thinker, Huxley is universally acknowledged to have held a high position. On many questions he has profoundly influenced modern thought, and in none so much as in that relating to the theory of Evolution. Of the views of Darwin and Wallace he was, if not the earliest, certainly far the most brilliant supporter. As early as 1863 his lectures to working men, begun in 1860 at the Jermyn Street Museum, were published under the title "Evidence as to Man's place in Nature," and excited great interest both at home and abroad. Not only did he advance the Darwinian principles in this and other works, but himself worked out many important developments thereof.

His exceptional qualities as a controversialist are well known and were often called forth in defence of the evolution hypothesis and in theological disputes; while as a writer of English, no one of his time has surpassed Huxley. Clearness of writing was his especial aim,—an aim which all must admit he has worthily attained. Perhaps, indeed, his greatest fame will hereafter rest on his qualities as a teacher. The extension of scientific knowledge was to him as important an object as its acquisition, and he fully recognized the extreme difficulty of, as he himself said, “the task of putting the truths learned in the field, the laboratory, and the museum, into language, which, without bating a jot of scientific accuracy shall be generally intelligible. His desire for the extension of scientific knowledge and methods, according to his own statement, rested on the conviction that there is no alleviation for the sufferings of mankind except veracity of thought and action. With the intent of promoting these objects he was content to subordinate any ambition he possessed for scientific fame to other ends, and he would have been content to be remembered, or even not remembered, as one of many who had worked for the popularization of science, the development and organization of scientific education, and the maintenance of opposition to clericalism of whatever denomination. That he will meet with the former alternative, of remembrance, and of remembrance as an ideal hero of science, will be the opinion of all who have paid even the slightest attention to his work and writings.

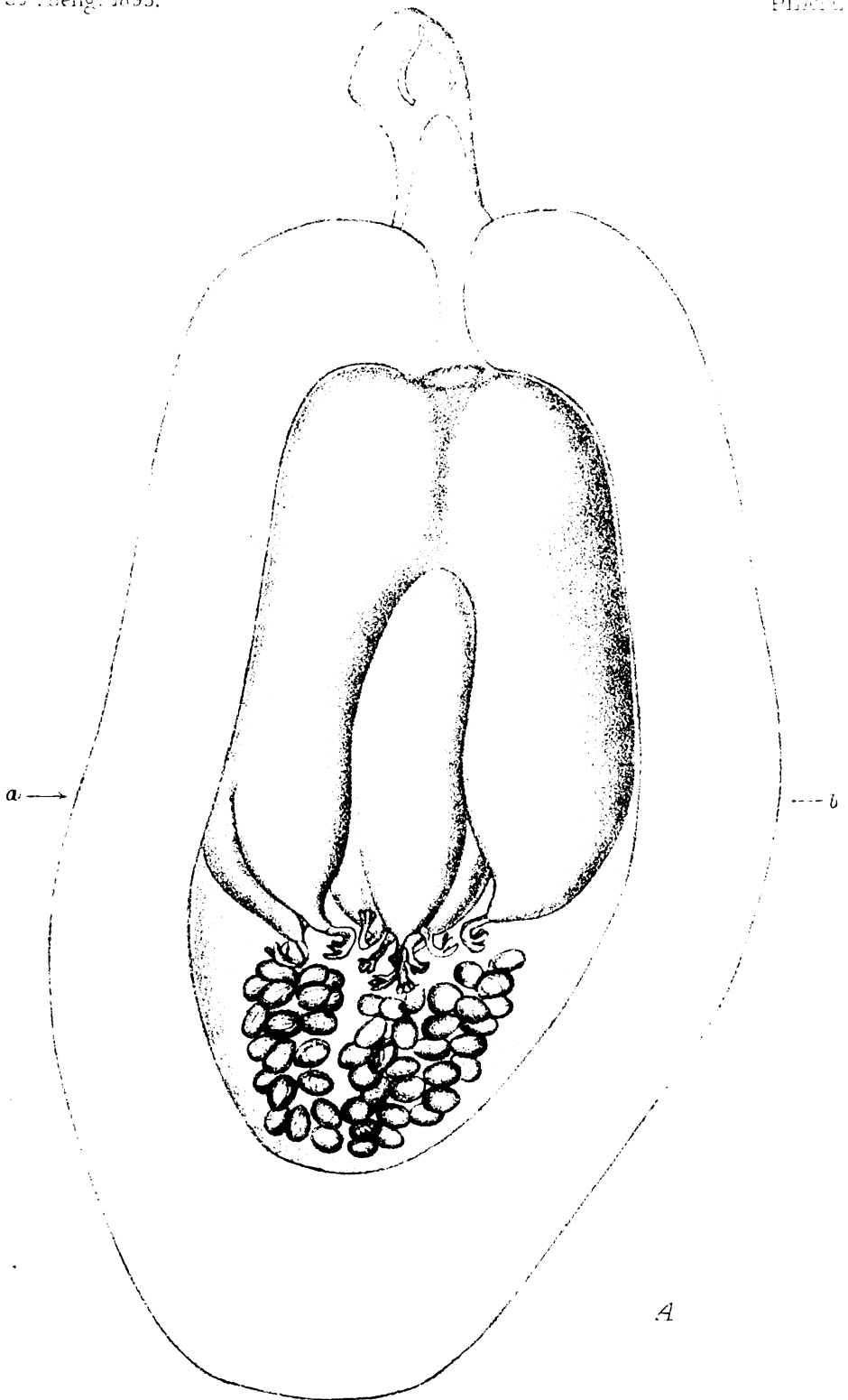
Dr. D. Prain exhibited a monstrous *Papaya* and made the following remarks.

*A Case of Pleiotaxy of the Gynæcium.*—By D. PRAIN.

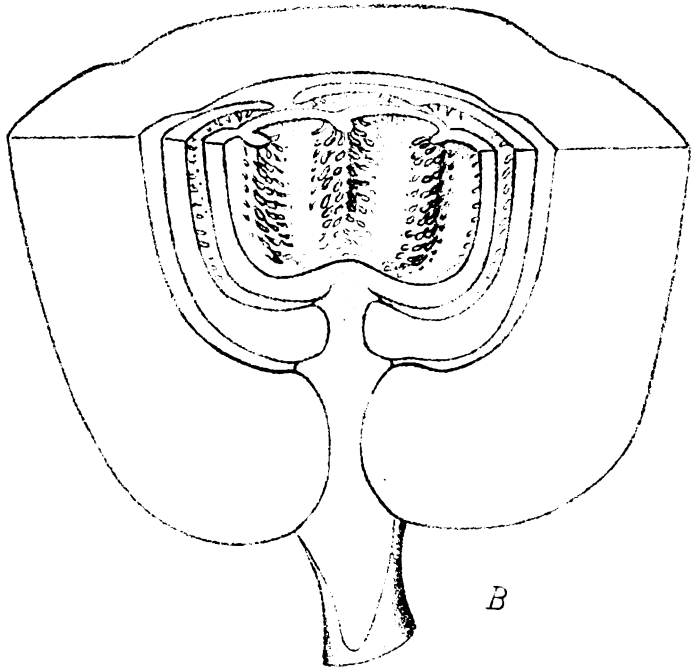
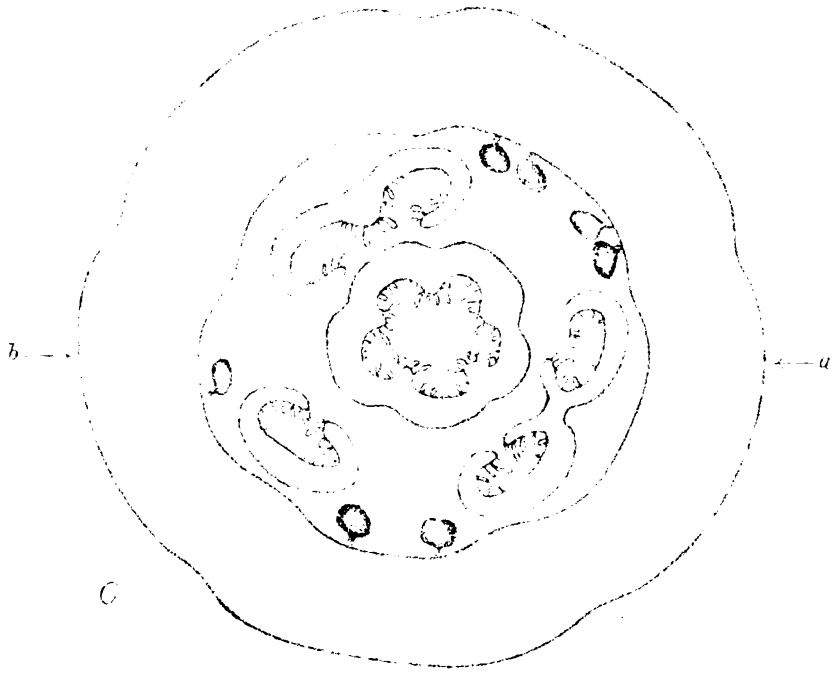
(With Plates IV and V.)

Pleiotaxy of the gynæcium, or an increase in the number of whorls of which the pistil consists, occurs so infrequently that an undoubted instance is not unworthy of record. The present example, which occurred in a *Papaya* fruit that came to table in the ordinary way as dessert, was sent to the Royal Botanic Garden by Mr. J. S. Gladstone. It is an excellent instance of the condition spoken of as “a fruit within a fruit.”<sup>1</sup> Of this condition there may be two explanations. An adventitious fruit may occur within the ovary so as to occupy the position usually occupied by a seed. This is by no means an uncommon occurrence and, among recorded instances, is well-figured by Dr. Masters (*Veg. Teratol.* p. 182, f. 94, 95) from an example in Wall-flower pods,

<sup>1</sup> *Gardener's Chronicle*, i. (1882) p. 11 and p. 601.











by Mr. Duthie (*Gard. Chron.* i, 1882, p. 601, f. 95) from examples in the pods of Indian Mustard and by Dr. Masters (*Veg. Teratol.* p. 183, f. 96, 97) from examples in Grapes. Dr. King tells me that he has observed something approaching the same peculiarity in the Papaya itself; one or more of the seeds have been replaced by miniature Papayas projecting into the ovarian cavity.

Here, however, we have to deal with a different phenomenon. Inside the perfectly normal-looking fruit we find a second, about half its length, quite unconnected with the carpels of the ordinary pistil and arising from the axis of the flower within the normal ovary and therefore above the point of attachment of its parts. The edges of the carpellary leaves of this second ovary are more or less free except at the base; through the interstices we can see a third ovary proportionately smaller but rather more approaching the normal ovary in appearance and structure owing to its component carpels being united except at their tips. (Pl. IV, fig. A.) This third ovary we find to be from the second as the second is from the first; it occupies apparently as free the very extremity of the axis of the flower. (Pl. V, fig. B).

The degree of solution of carpels in the more external of these accessory fruits is rather irregular. Two carpels are united throughout; two others are discrete only in their upper fourth. These two pairs are *inter se* discrete to within half-an-inch from their base; the solitary carpel on the other hand, is united throughout its lower third to each of its neighbours. The carpels of this whorl are alternate with those of the normal ovary; those of the innermost whorl are in turn alternate with the ones of the whorl just outside and are therefore opposite the normal carpels. (Pl. V, fig. C.) The multiplication of carpels here met with is obviously not due to *substitution* of carpels for organs of some other kind and is not easily explicable on the theory that there has been a *chorisis* of the normal carpels.

The stigmas of these extra carpels appear to be perfectly normal, but being confined within a closed cavity pollination has been impossible and the perfectly normal ovules that cover the placentas have remained undeveloped. Owing to the pressure exerted by the accessory carpels seeds are absent, excepting on the spaces opposite the gaps between these adventitious organs, from the lower two-thirds of the normal fruit. In the upper third where there has been no pressure perfect seeds are present as usual.

The discrete character of the outer accessory carpels will recall to mind the appearance presented by the "finger orange," in which there is, besides the separation of the ordinary ones, not infrequently an augmentation in number of carpels. This at times is due apparently

to stamens becoming converted into carpellary organs; not always, however, for at times there is an increase in number of carpels without any alteration of stamens or of other organs. But the presence of a complete axially situated orange within another has not, I believe, been recorded.

Though very uncommon, the condition just detailed, which is the second way in which the existence of a fruit within a fruit may be explained, is nevertheless not novel. An excellent account of a precisely parallel case has been given by Dr. Masters (*Gard. Chron.* i, 1882, p. 11, f. 1), who records the phenomenon as occurring in *Tropidocarpum* an American *Crucifer*. In that instance a small ovary occupied, as in the present case, the very extremity of the flower-stem within the normal seed-vessel. And it is possible that the condition of affairs in what is known as the St. Valery apple may be of the same nature, though another explanation has been offered of the structure in this case and it must be admitted that there, as in the case of the Love-apple where too an adventitious series of carpels is occasionally produced, the adventitious one is intimately combined with the primary series.

As showing the rarity of the condition it may be mentioned that the *Tropidocarpum* example appears to have been the first that Dr. Masters, our greatest authority on teratological questions, had met with; if any similar condition has since been recorded, the record has escaped my attention.

In the *Gardener's Chronicle* instance only one accessory carpellary whorl is present; here there are two. Partly on this account therefore, and partly owing to the rarity of the condition, but chiefly because the phenomenon is here so obvious and the abnormal organs are so tangible—the accessory ovary in this *Papaya* measures three inches in length, that of *Tropidocarpum* only as many lines—it seems worth while recording this instance of pleiotaxy of the gynœcium.

The Philological Secretary exhibited two photographs of the inscription on a rock in the Brahmaputra forwarded by Mr. E. A. Gait.

The following papers were read:—

1. *Discovery of a copper plate grant of Viçvarūpa, one of the Sēna kings of Bengal.*—By BABU NAGENDRANATHA VASU.

(Abstract.)

In the village Madanapāḍa, Post Office Pinjāri, Parganāh Kōṭāli-pāḍa of the Farīdupur District, a peasant while digging his field found a

copper-plate and made it over to the land-holder, who kept it in his house. This plate was made over to me by Paṇḍita Lakṣmi-candra Sārnkhyatīrtha in 1892, and I noticed the contents of this inscription and published a facsimile of the whole plate in the *Viçvakōṣa*, but this is the first time that I publish the entire text.

It has a curvature at the top bearing a ten-handed image of Sadāçiva, similar to that in the grant first brought to notice in the *Society's Journal* by J. Prinsep in 1838 (Vol. VII., Part I., p. 42).

The characters may be described as Bengali of the 12th or 13th century A.D., and they resemble closely the characters of the Dēopādā inscription of Vijaya-sēna.

The inscription opens with an invocation of Nārāyaṇa, of the Sun and of the Moon. It then relates that:—

From this famous lineage (of the Moon) sprung Sudhā-kiraṇa-çekhara (Çiva) in the shape of Vijaya-sēna. From him was born a very powerful king named Ballāla-sēna. From him sprung a son named Lakṣmaṇa-sēna; his son was Viçva-rūpa. The object of this plate is to record the grant of certain lands within the limits of Vikramapura to the Çrutipāthaka (the reader of the Vēdas) the illustrious Viçvarūpa-dēva-çarman of the Vālsya gōtra, a great-grandson of Parāçara-dēva-çarman, grandson of Garbhēçvara and son of Vanamāli, in the month of Bhādra of the 14th year; effected by the illustrious Kōpiviṣṇu, the chief officer of peace and war in Gauḍa; (engraved) on the first Āçvina of the year 14.

One of the important points for notice in connection with this inscription is the distinctive titles of the four Sēna Kings which have, I believe, hitherto escaped the notice of antiquarians; thus:—Mahārāja Vijaya-sēna-dēva was styled Vṛṣabha-çaṅkara-gauḍēçvara, his son Mahārāja Ballāla-sēna-dēva, Niḥçaṅka-çaṅkara-gauḍēçvara, his son Maharāja Lakṣmaṇa-sēna-dēva, Madana-çaṅkara-gauḍēçvara (L. 35), and his son Mahārāja Viçvarūpa-sēna-dēva, Vṛṣabhāṅka-çaṅkara-gauḍēçvara.

The contents of the grant published by Prinsep as that of Kēçava-sēna, agree closely with those of the grant under review, with this exception that the place, where the name of the pseudo-Kēçava-sēna occurs in the grant, is in such a condition as to show that originally some other name had been inserted in the place of that of Kēçava-sēna. This circumstance led Prinsep to believe that at the time of the copper-plate being engraved, Kēçava-sēna's elder brother Mādha-sēna suddenly expired, and that his name was erased from it and that of his brother. But in the face of the copper-plate grant under review, Prinsep's inference can scarcely hold good. The reading moreover of Prinsep is not correct. The correct reading of the 10th verse, published by him according to the facsimile of the original grant of the 3rd year,

and also as shewn in the newly discovered grant of the 14th year (line 17) is as follows :—

Etasmāt kathamanyathā ripu-vadhū-vaidhavya-baddha-vratō.  
Vikhyāta-kṣitipāla-maulir abhavat Ṣri-ṣiṣvarūpo nṛpaḥ.

It is evident from the above ṣloka that both the plates have the name of Viṣva-rūpa. The marks in the two places in the copper-plate of the 14th year exactly tally with those of the other copper-plate of the 3rd year. The name of Viṣva-rūpa is clearly inscribed on this plate in lines 17, 22 and 38. In both the grants, the name of Viṣva-rūpa, as marked in the last two places, seems to me to be the Royal sign-manual.

The paper will be published in full in the *Journal*, Part I.

2. *On Pronominal Suffixes to the Kāṣmiri Language.*—By DR. G. A. GRIERSON.

The paper will be published in the *Journal*, Part I.

3. *On Mercurous Nitrite.*—By Dr. P. C. RAY.

4. *Noviciae Indicae, X. Some additional Fumariaceæ.*—By D. PRAIN.

The papers will be published in the *Journal*, Part II.

### LIBRARY.

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LIST OF MEMBERS  
OF THE  
ASIATIC SOCIETY OF BENGAL.  
ON THE 31ST DECEMBER, 1894.

LIST OF OFFICERS AND MEMBERS OF COUNCIL  
OF THE ASIATIC SOCIETY OF BENGAL  
FOR THE YEAR 1894.

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## LIST OF ORDINARY MEMBERS.

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R. = Resident. N. R. = Non-Resident. A. = Absent. N. S. = Non-Subscribing.  
L. M. = Life Member. F. M. = Foreign Member.

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N. B.—Members who have changed their residence since the list was drawn up are requested to give intimation of such a change to the *Secretaries*, in order that the necessary alteration may be made in the subsequent edition. Errors or omissions in the following list should also be communicated to the *Secretaries*.

Members who are about to leave India and do not intend to return are particularly requested to notify to the *Secretaries* whether it is their desire to continue Members of the Society; otherwise, in accordance with Rule 40 of the Bye-Laws, their names will be removed from the list at the expiration of three years from the time of their leaving India.

Date of Election.		
1894 Sept. 27.	N.R.	Abdul Wali, Maulvie. <i>Sailkapa, Jessore District.</i>
1888 Feb. 1.	F.M.	Adamson, Major Charles Henry Ellison, M. S. C. <i>Europe.</i>
1889 Nov. 6.	A.	Adie, Surgeon-Captain J. R., M. B. <i>Europe.</i>
1860 July 4.	N.R.	Ahmad Khán, The Hon. Maulvie Sir Sayid, Bahádur, K. C. S. I. <i>Aligarh.</i>
1888 April 4.	R.	Ahmud, Shams-ul-ulama Maulvie, Arabic Professor, Presidency College. <i>Calcutta.</i>
1888 Feb. 1.	R.	Alcock, Surgeon-Captain Alfred William, M. B., Superintendent, Indian Museum. <i>Calcutta.</i>
1884 Mar. 5.	L.M.	Ali, Sir Ali Qadr Syud Hassan, Nawáb Bahádur, K. C. I. E. <i>Murshedabad.</i>
1885 Mar. 4.	N.R.	Ali Bilgrámi, Syud, B. A., A. B. S. M., F. G. S. <i>Hyderabad.</i>
1874 June 3.	R.	Amir Ali, The Hon. C. I. E., M. A. Barrister-at-Law, Judge, High Court. <i>Calcutta.</i>
1865 Jan. 11.	F.M.	Anderson, John, M. D., F. R. S., F. L. S. <i>Europe.</i>
1884 Sept. 3.	R.	Anderson, J. A. <i>Calcutta.</i>
1893 Aug. 31.	N.R.	Anderson, Dr. R. <i>Bombay.</i>
1892 Jan. 6.	R.	Arnold, Henry Kerchever Walter. <i>Calcutta.</i>
1890 July 2.	N.R.	Arnold, Thomas Walker, B. A., M. R. A. S., Professor, Muhammadan Anglo-Oriental College. <i>Aligarh.</i>
1892 Feb. 3.	N.R.	Arthur, O. G., C. S. <i>Muttra.</i>

Date of Election.		
1872 April 3.	N.R.	Ashán-ullah, Nawáb, Khán Bahádur. <i>Dacca.</i>
1877 July 4.	R.	Ashgar Ali Diler Jang, Nawáb Syad, Khán Bahádur, c. s. i. <i>Calcutta.</i>
1889 Aug. 29.	N.R.	Aziz-ud-din Ahmad, Deputy Magistrate. <i>Jaunpur.</i>
1870 Feb. 2.	L.M.	Baden-Powell, Baden Henry, c. i. e., c. s. <i>Europe.</i>
1891 Mar. 4.	N.R.	Baillie, D. C., c. s. <i>Naini Tal.</i>
1892 Aug. 3.	N.R.	Baker, Lieutenant Donald. <i>Meerut.</i>
1891 April 1.	A.	Baker, E. C. S. <i>Europe.</i>
1865 Nov. 7.	N.S.	Ball, Valentine, M. A., F. R. S., F. G. S. <i>Europe.</i>
1889 May 1.	R.	Banerji, The Hon. Gurudás, M. A., D. L., Judge, High Court. <i>Calcutta.</i>
1869 Dec. 1.	L.M.	Barker, R. A., M. D., Civil Surgeon. <i>Europe.</i>
1885 Nov. 4.	R.	Barman, Dámudar Dás. <i>Calcutta.</i>
1877 Jan. 17.	N.R.	Barman, Kishor Kumár Radhá Dev, Juvráj of Hill Tipperah. <i>Tipperah.</i>
1894 Sept. 27.	R.	Basu, Nagendra Natha. <i>Calcutta.</i>
1893 April 5.	N.R.	Batabyal, Umes Chunder, c. s. <i>Malda.</i>
1864 Sept. 7.	A.	Beames, John, c. s. <i>Europe.</i>
1878 Sept. 25.	R.	Beighton, T. D., c. s. <i>Calcutta.</i>
1876 Nov. 15.	F.M.	Beveridge, Henry, c. s. <i>Europe.</i>
1878 Oct. 4.	R.	Bhakta, Krishna Gopál. <i>Calcutta.</i>
1892 April 6.	R.	Bhattacharjee, Janaki Nath. <i>Calcutta.</i>
1879 Mar. 5.	N.R.	Biddulph, Col. J., B. S. C. <i>Barado.</i>
1884 Feb. 6.	A.	Bigg-Wither, Major A. C., B. A., A. I. C. E. <i>Europe.</i>
1859 Aug. 3.	L.M.	Blanford, W. T., A. R. S. M., F. R. S., F. G. S., F. R. G. S., F. Z. S. <i>Europe.</i>
1893 Feb. 1.	N.R.	Bodding, The Rev. P. O. <i>Rampore Haut.</i>
1885 Mar. 4.	N.R.	Bolton, C. W., c. s. <i>Bankipur.</i>
1890 July 2.	R.	Bonnerjee, Womes Chunder, Barrister, Middle Temple. <i>Calcutta.</i>
1893 Mar. 1.	R.	Bose, Bhupendra Nath, Solicitor. <i>Calcutta.</i>
1880 Nov. 3.	N.R.	Bose, Pramatha Náth, B. Sc., F. G. S., Geological Survey of India.
1890 Dec. 3.	N.R.	Bose, Rai Nali Naksha, Bahádur, Chairman, Burdwan Municipality. <i>Burdwan.</i>
1876 Nov. 15.	N.R.	Bowie, Colonel M. M., Commissioner, C. P. <i>Nagpur</i>
1876 May 4.	N.R.	Bradshaw, Surgeon-Major-General A. F., Honorary Surgeon to the Viceroy, M. D., C. B. <i>Simla.</i>
1860 Mar. 7.	L.M.	Brandis, Sir Dietrich, K. C. I. E., Ph. D., F. L. S., F. R. S. <i>Europe.</i>
1891 Aug. 27.	A.	Brown, Dr. E. H. <i>Europe.</i>
1887 May 4.	R.	Burál, Nobinchánd, Solicitor. <i>Calcutta.</i>
1862 Feb. 5.	L.M.	Bysack, Gaurdás. <i>Calcutta.</i>
1879 April 2.	R.	Calcutta, The Rt. Rev. the Lord Bishop of. <i>Calcutta.</i>
1893 Feb. 1.	R.	Caspersz, A. A., Barrister-at-Law. <i>Calcutta.</i>
1890 June 4.	N.R.	Chakravartí, Man Mohan, M. A., B. L., Deputy Magistrate. <i>Jajpur, Cuttack.</i>

Date of Election.		
1894 Aug. 1.	N.R.	Chatterjee, M. N., Professor of Philosophy, Maharaja's College. <i>Patialia.</i>
1893 July 5.	N.R.	Chatterjee, Radhikáraman. <i>Rungpore.</i>
1892 Dec. 7.	N.R.	Chatterjee, Sarat Chandra, B. A. <i>Madhupur.</i>
1892 Aug. 3.	N.R.	Chaube, Behary Lall. <i>Bankipur.</i>
1893 Sept. 28.	R.	Chaudhuri, Banawarilala, B. sc. Edin. <i>Calcutta.</i>
1861 Mar. 1.	N.R.	Chaudhuri, Harachandra, Zemindar. <i>Sherpur, Mymensingh.</i>
1880 Nov. 3.	N.R.	Chaudhuri, Rái Khired Chandra. <i>Chupra.</i>
1885 Feb. 4.	N.R.	Chaudhuri, Rájá Suryakánta, Bahádur. <i>Mymensingh.</i>
1890 Feb. 5.	N.R.	Chuckerbutty, A. Goodeve, B. C. S. <i>Bombay.</i>
1889 Sept. 26.	N.R.	Chuckerbutty, Rájá Rámranjan, Bahádur. <i>Hitampur, Beerbhoom.</i>
1889 April 3.	R.	Chunder, Gonesh Chunder, Solicitor. <i>Calcutta.</i>
1885 April 1.	A.	Clark, H. Martyn, M. B. <i>Europe.</i>
1877 Aug. 30.	A.	Clarke, Lieut.-Col. Henry Wilberforce, B. E. <i>Europe.</i>
1880 Aug. 26.	F.M.	Clerk, Colonel Malcolm G. <i>Europe.</i>
1881 May 4.	N.R.	Cockburn, John, Asst. Sub-Deputy Opium Agent. <i>Allahabad.</i>
1889 Nov. 6.	R.	Colville, William Brown. <i>Calcutta.</i>
1890 Dec. 3.	N.R.	Connan, William, C. E., Public Works Department. <i>Cuttack.</i>
1874 Nov. 4.	F.M.	Constable, Archibald, M. I. C. E. <i>Europe.</i>
1884 Aug. 6.	A.	Cotes, Everard Charles. <i>Europe.</i>
1876 Mar. 1.	F.M.	Crawfurd, James, B. A., C. S. <i>Europe.</i>
1887 Aug. 25.	R.	Criper, William Risdon, F. C. S., F. I. C., A. E. S. M. <i>Cossipore.</i>
1877 June 6.	R.	Croft, Sir A. W., K. C. I. E., M. A. Director of Public Instruction, Bengal. <i>Calcutta.</i>
1874 Mar. 4.	R.	Crombie, Surgeon-Major Alexander, M. D., Presidency General Hospital. <i>Calcutta.</i>
1888 Dec. 5.	N.R.	Crooke, William, B. A., C. S., Magistrate and Collector. <i>Saharanpur.</i>
1873 Aug. 6.	R.	Cunningham, Surgeon-Major David Douglas, F.R.S., Honorary Surgeon to the Viceroy. <i>Calcutta.</i>
1873 Dec. 3.	N.R.	Dames, Mansel Longworth, C. S., Asst. Commissioner. <i>Dera Ghazi Khan.</i>
1892 Mar. 2.	N.R.	Das, Gopal Ballabh, M. A. <i>Cuttack.</i>
1865 June 7.	N.R.	Dás, Rájá Jaykrishna, Bahádur, C. S. I. <i>Moradabad.</i>
1879 April 7.	N.R.	Dás, Rám Saran, M. A., Secy., Oudh Commercial Bank, Limited. <i>Fyzabad, Oudh.</i>
1893 Nov. 1.	A.	Dé, B, C. S. <i>Europe.</i>
1885 May 6.	N.R.	Dé, Rájá Baikuntanáth, Bahádur. <i>Balasore.</i>
1893 Mar. 1.	F.M.	Deussen, Dr. Paul. <i>Europe.</i>

Date of Election.		
1886 June 2.	R.	Doyle, Patrick, C. E., M. R. I. A., M. I. C. E. I., F. R. A. S., F. R. S. E., F. G. S., F. E. Met. S., L. S. (Exam.), M. Lond. Math. Soc., F. S. S., Fel. San. Inst., M. Aus. Inst. M. E. <i>Calcutta.</i>
1887 Nov. 2.	A.	Driver, Walter Henry Parker. <i>Europe.</i>
1892 Sep. 22.	A.	Drury, Dr. F. G. <i>Europe.</i>
1889 Jan. 2.	N.R.	Dudgeon, Gerald Cecil. <i>Pailihat, W. Doears.</i>
1879 Feb. 5.	N.R.	Duthie, J. F., Director, Government Botanical Survey, Northern India. <i>Saharanpur.</i>
1892 Jan. 6.	N.R.	Dutt, Gerindranath. <i>Hatwa.</i>
1877 Aug. 30.	N.R.	Dutt, Kedárnáth, Depy. Magistrate. <i>Poores.</i>
1892 Aug. 25.	R.	Dutt, Narsingh. <i>Howrah.</i>
1890 Sept. 25.	N.R.	Dutt, The Hon. Romesh Chunder, B. C. S., Barrister-at-Law, Middle Temple. <i>Burdwan.</i>
1870 Mar. 9.	L.M.	Edinburgh, H. R. H. The Duke of. <i>Europe.</i>
1871 Dec. 2.	N.R.	Eliot, J., M. A., Meteorological Reporter to the Govt. of India. <i>Simla.</i>
1892 May 4.	R.	Elliott, The Hon. Sir C. A., K. C. S. I., Lieut.-Governor of Bengal. <i>Calcutta.</i>
1891 Aug. 27.	R.	Ernest, Diego, Merchant. <i>Calcutta.</i>
1894 Dec. 5.	R.	Finn, Frank, B. A. <i>Calcutta.</i>
1879 July 2.	R.	Finucane, M., C. S. <i>Calcutta.</i>
1886 April 7.	N.R.	Fleet, John Faithfull, C. I. E., C. S. <i>Poona.</i>
1893 May 3.	A.	Forbes, Major H. F. Gordon. <i>Europe.</i>
1892 May 4.	R.	Forrest, G. W., B. A., <i>Calcutta.</i>
1876 July 5.	N.R.	Foulkes, The Rev. Thos., F. L. S., M. R. A. S., F. R. G. S. <i>Salem, Madras Presidency.</i>
1893 Jan. 11.	N.R.	Gait, E. A., C. S. <i>Shillong.</i>
1880 April 7.	N.R.	Gajapati, Sir Ananda Rám, K. C. I. E., Rájá of Vizianagram. <i>Vizianagram.</i>
1859 Aug. 3.	L.M.	Gastrell, General James Eardley. <i>Europe.</i>
1889 Jan. 2.	R.	Ghose, Jogendrachandra, M. A., B. L. <i>Calcutta.</i>
1883 Aug. 30.	R.	Ghose, Manmohan. <i>Calcutta.</i>
1889 Mar. 6.	R.	Ghosha, Bhupendra Sri. <i>Calcutta.</i>
1869 Feb. 3.	R.	Ghosha, Pratápachandra, B. A. <i>Calcutta.</i>
1884 Dec. 3.	N.R.	Giles, George M. J., M. B., F. R. C. S., Civil Medical Officer, Lawrence Military Asylum. <i>Sanawar.</i>
1886 Sept. 30.	N.R.	Gimlette, Surgeon George Hart Desmond, Bengal Medical Service, M. D., M. CH., M. R. C. S., L. S. A., <i>Sutna, E. I. R.</i>
1890 Aug. 6.	R.	Goethals, His Grace The Most Rev. Dr. Paul, S. J., Archbishop. <i>Calcutta.</i>
1861 Feb. 5.	N.S.	Goodwin-Austen, Lieut.-Colonel H. H., F. R. S., F. Z. S., F. R. G. S. <i>Europe.</i>
1881 Mar. 2.	R.	Gosáin, Hem Chunder. <i>Calcutta.</i>

Date of Election.		
1892 Aug. 25.	N.R.	Greeven, R., c. s. <i>Ghasipur.</i>
1876 Nov. 15.	F.M.	Grierson, Dr. George Abraham, c. s., c. i. e. <i>Europe.</i>
1885 Dec. 2.	R.	Griesbach, C. L., c. i. e., f. g. s., Director, Geological Survey of India. <i>Calcutta.</i>
1888 July 4.	R.	Gupta, Rajanikánta. <i>Calcutta.</i>
1892 Jan. 6.	N.R.	Haig, Lieutenant Wolseley. <i>Akola.</i>
1883 Jan. 3.	N.R.	Harding, Francis Henry, B. A., c. s. <i>Mymensingh.</i>
1890 June 4.	A.	Heilgers, Robert Philip, Consul for H. I. M. the Emperor of Austria and Hungary, Knight of the Imperial Order of the Iron Crown, Commandeur Ordre Impériale de Medjidié, F. E. G. S., F. R. S. S. <i>Europe.</i>
1875 Mar. 3.	N.R.	Hendley, Brigade-Surgeon Lt.-Col. Thomas Holbein, c. i. e. <i>Jaipur.</i>
1890 April 2.	A.	Hickson, F. G. <i>Europe.</i>
1892 Aug. 3.	F.M.	Hill, Samuel Charles. <i>Europe.</i>
1872 Dec. 5.	R.	Hoernle, A. F. R., PH. D., Principal of the Calcutta Madrasa.
1878 Mar. 6.	N.R.	Hoey, Dr. W., c. s. <i>Gorakhpur.</i>
1886 June 2.	R.	Hogg, Alexander. <i>Calcutta.</i>
1891 July 1.	R.	Holland, Thomas H. Geological Survey of India. <i>Calcutta.</i>
1884 Mar. 5.	N.R.	Hooper, John, c. s., Secretary, Board of Revenue. <i>Allahabad. N.-W. P.</i>
1873 Jan. 2.	L.M.	Houstoun, G. L., f. g. s. <i>Europe.</i>
1863 Jan. 15.	A.	Howell, Mortimer Sloper, c. s., c. i. e. <i>Europe.</i>
1878 Sept. 25.	A.	Hughes, G., c. s. <i>Europe.</i>
1884 May 2.	N.R.	Hussein, Syud, B. A., Secy. to Nizam of Hyderabad's Council. <i>Hyderabad.</i>
1890 Dec. 3.	N.R.	Hyde, The Rev. Henry Barry, M. A., Bengal Ecclesiastical Establishment. <i>Kasauli.</i>
1866 Mar. 7.	F.M.	Irvine, William, c. s. <i>Europe.</i>
1869 Aug. 4.	R.	Jahán Qadr Muhammad Wáhid Alí, The Hon. Prince Sir, Bahadur, K. C. I. E. <i>Garden Reach. Calcutta.</i>
1873 Dec. 3.	N.R.	Johore, H. H. the Maharájá of, K. C. S. I. <i>New Johore, Singapore.</i>
1882 Mar. 1.	N.R.	Kennedy, Pringle, M. A. <i>Mozufferpur.</i>
1874 Dec. 2.	N.R.	Khudá Baksh, Maulvie, Khán Bahádúr. <i>Bankipur.</i>
1867 Dec. 4.	R.	King, Brigade-Surgeon George, C. I. E., M. B., F. L. S., Supdt., Royal Botanic Garden. <i>Sibpur.</i>
1881 Mar. 2.	N.R.	King, Lucas White, B. A., LL. B., c. s., Deputy Commissioner. <i>Dehra Ismail Khan.</i>
1884 Nov. 5.	A.	Kitts, Eustace John, c. s. <i>Europe.</i>
1891 Feb. 4.	N.R.	Kupper, The Hon. Lala Bunbehari. <i>Burdwan.</i>



Date of Election.		
1893 July 1.	R.	Laharry, Sarat Chandra. <i>Hooghly.</i>
1890 April 2.	A.	Lake, Philip, B. A., (Cantab.), Geological Survey of India. <i>Europe.</i>
1889 July 3.	N.R.	Lal, Pandit Brij Bukhan, Public Works Department. <i>Kurnal, Punjab.</i>
1887 May 4.	L.M.	Lanman, Charles R., Corresponding Secretary of the American Oriental Society, Professor of Sanskrit in Harvard College. <i>Cambridge, Mass. U. S. America.</i>
1891 June 3.	F.M.	Lathom-Browne, The Rev. D. G. <i>Europe.</i>
1877 Sep. 27.	N.R.	LaTouche, James John Digges, B. A., c. s. <i>Allahabad.</i>
1889 Mar. 6.	N.R.	LaTouche, Thomas Henry Digges, M. A. Deputy Superintendent, Geological Survey of India.
1881 Mar. 2.	A.	Lee, J. Bridges, M. A., F. G. S., F. C. S., F. Z. S. <i>Europe.</i>
1889 Nov. 6.	R.	Lee, W. A. <i>Calcutta.</i>
1889 Feb. 6.	R.	Little, C., M. A., Bengal Education Service. <i>Calcutta.</i>
1892 Sep. 22.	R.	Lovelock, A. S. <i>Calcutta.</i>
1886 Sep. 30.	R.	Luson, Hewling, c. s. <i>Calcutta.</i>
1869 July 7.	A.	Lyall, Charles James, M. A., LL. D., C. S. I., C. I. E. <i>Europe.</i>
1892 Sep. 22.	R.	Lyell, George. <i>Calcutta.</i>
1870 April 7.	L.M.	Lyman, B. Smith. <i>Philadelphia, Pa., U. S. America.</i>
1868 Dec. 2.	N.R.	Macauliffe, Michael, B. A., c. s. <i>Lahore.</i>
1893 Jan. 11.	L.M.	Maclagan, E. D., M. A., c. s. <i>Calcutta.</i>
1891 Feb. 4.	N.R.	Macpherson, Duncan J., c. s. <i>Gya.</i>
1893 Aug. 31.	N.R.	Mahatha, Purmeshwar Narain. <i>Mozufferpore.</i>
1881 July 6.	R.	Mahomed Firukh Sháh, Prince. <i>Calcutta.</i>
1886 Jan. 6.	N.R.	Mahomed Latif Khán, Sayyid, Khán Bahádur. <i>Jullunder.</i>
1882 Aug. 2.	R.	Mahomed Yusoof, The Hon. Maulvie, Khan Bahádur. <i>Calcutta.</i>
1889 Jan. 2.	R.	Maliáh, Kumár Rameswár. <i>Howrah.</i>
1891 Aug. 27.	R.	Mallik, H. C. <i>Calcutta.</i>
1893 July 5.	R.	Mangos, C. D. <i>Calcutta.</i>
1889 Mar. 6.	R.	Mann, John, M. A. <i>Calcutta.</i>
1893 Mar. 1.	R.	Marriott, C. R., c. s. <i>Calcutta.</i>
1892 April 6.	A.	Maynard, Surgeon-Captain F. P. <i>Europe.</i>
1884 Dec. 3.	N.R.	McCabe, R. B., c. s., Deputy Commissioner. <i>Tezpur, Assam.</i>
1886 Mar. 3.	L.M.	Mehtá, Rustomjee Dhunjeebhoy. <i>Calcutta.</i>
1884 Nov. 5.	N.R.	Middlemiss, C. S., B. A., Assistant Superintendent, Geological Survey of India.
1884 Sept. 3.	R.	Miles, William Harry. <i>Calcutta.</i>
1870 July 6.	R.	Miller, A. B., B. A., Barrister-at-Law, Official Trustee. <i>Calcutta.</i>
1874 May 6.	N.R.	Minchin, F. J. V. <i>Aska, Ganjam.</i>

Date of Election.		
1890 Dec. 3.	N.R.	Mitra, Varadá Charana. Joint-Magistrate. <i>Pooree</i> .
1876 Dec. 6.	N.R.	Mookler, Col. E., Political Agent. <i>Turkish Arabia</i> .
1894 July 4.	R.	Moir, Surgeon-Captain D. M., I. M. S. <i>Calcutta</i> .
1886 May 5.	N.R.	Molesworth, Capt. E. H. <i>Shillong</i> .
1864 Nov. 2.	N.R.	Muir, J. W., M. A., C. S. <i>Jaunpur</i> .
1885 July 1.	R.	Mukerjea, Nilmani, Professor, Sanskrit College. <i>Calcutta</i> .
1892 Mar. 2.	R.	Mukerjea, Nrisinha Chundra. <i>Calcutta</i> .
1892 Dec. 7.	R.	Mukerjea, Panchanan. <i>Calcutta</i> .
1867 Mar. 6.	R.	Mukerjea, The Hon. Rájá Pearimohan, C. S. I., M. A. <i>Uttarpara</i> .
1894 Aug. 3.	R.	Mukerjee, Sibnarayan. <i>Uttarpara</i> .
1890 July 2.	R.	Mukharji, T. N. <i>Calcutta</i> .
1886 May 5.	R.	Mukhopádhyaýa, Dr. Asutosh, M.A., F.R.A.S., F.R.S.E. <i>Calcutta</i> .
1887 May 4.	R.	Munro, Thomas R. <i>Calcutta</i> .
1885 June 3.	N.R.	Naemwoollah, Maulvie, Deputy Magistrate. <i>Moradabad</i> .
1887 June 1.	N.R.	Narain, Ráo Govind Ráo. <i>Allahabad</i> .
1876 May 4.	R.	Nash, A. M., M.A., Bengal Education Service. <i>Calcutta</i> .
1881 Nov. 2.	R.	Nicóville, L. de., F.E.S. <i>Calcutta</i> .
1889 Aug. 29.	L.M.	Nimmo, John Dnncan. <i>Calcutta</i> .
1887 April 6.	N.R.	Noetling, Fritz, Ph. D. Palæontologist to the Geological Survey of India.
1893 Feb. 1.	A.	Nolan, P., C. S. <i>Europe</i> .
1894 June 6.	N.R.	Nomani, Shams-ul-Ulama Maulvie Muhammad, Professor of Arabic in the Muhammadan Oriental College. <i>Aligarh</i> .
1892 Oct. 27.	N.R.	Norvill, Dr. Frederic H. <i>Dibrugarh</i> .
1885 Feb. 4.	R.	Nyáyaratna, Mahámahopádhyaýa Mahesachandra, C. I. E. <i>Calcutta</i> .
1879 Aug. 28.	A.	Oldham, Brigade-Surgeon C. F., F. R. G. S. <i>Europe</i> .
1883 Dec. 1.	N.R.	Oldham, R. D., A. R. S. M., F. G. S., Deputy Superintendent, Geological Survey of India.
1883 Aug. 30.	N.R.	Oliver, Edw. Emmerson, M. I. C. E. <i>Lahore</i> .
1887 July 6.	N.R.	Oung, Moug Hla. <i>Rangoon</i> .
1880 Aug. 4.	L.M.	Pandia, Pandit Mohanlál Vishnulál, F. T. S., Prime Minister, Partabgarh State. <i>Rajputna, via Mand-saur</i> .
1880 Jan. 7.	N.R.	Pargiter, Frederick E., B. A., C. S. <i>Cuttack</i> .
1862 May 7.	L.M.	Partridge, Surgeon-Major Samuel Bowen, M. D. <i>Europe</i> .

Date of Election.		
1871 Dec. 6.	N.R.	Peal, S. E. <i>Sibsagar, Assam.</i>
1873 Aug. 6.	R.	Pedler, Alexander, F. R. S., Bengal Education Service. <i>Calcutta.</i>
1888 June 6.	L.M.	Pennell, Aubray Percival, B. A., C. S. <i>Rangoon.</i>
1881 Aug. 25.	R.	Percival, Hugh Melville, M. A., Bengal Education Service. <i>Calcutta.</i>
1877 Aug. 1.	N.R.	Peters, Surgeon-Major C. T., M. B. <i>Bijapur, Bombay.</i>
1889 Nov. 6.	A.	Phillott, Capt. D. C. <i>Europe.</i>
1893 Jan. 11.	N.R.	Pillay, P. Sundaram. <i>Trivandrum.</i>
1889 Mar. 6.	A.	Praïn, David, M. A., M. B., L. R. C. S., I. R. S. E., I. L. S. <i>Europe.</i>
1892 Aug. 3.	R.	Pramanick, Asutosh. <i>Calcutta.</i>
1889 Mar. 6.	N.R.	Prasad, Hanuman, Raes and Zemindar. <i>Chunar.</i>
1889 Nov. 6.	N.R.	Prasada, Pandit Jwála, M. A., Assistant Commissioner. <i>Rai Bareli.</i>
1881 Feb. 2.	A.	Prideaux, Colonel Sir William Francis, B.S.C., K.C.I.E. <i>Europe.</i>
1880 April 7.	N.R.	Rai, Bipina Chandra, B. L. <i>Calcutta.</i>
1894 Aug. 30.	R.	Ranking, Dr. George. <i>Calcutta.</i>
1887 May 4.	R.	Ráy, Prasannakumár, D. SC., (Lond. and Edin.) Professor, Presidency College. <i>Calcutta.</i>
1889 June 5.	R.	Raye, Brigade-Surgeon Daniel O'Connell, M. D. <i>Calcutta.</i>
1884 Mar. 5.	A.	Risley, H. H., B. A., C. S., C. I. E. <i>Europe.</i>
1889 June 5.	A.	Rowe, F. J., M. A., Bengal Education Service. <i>Europe.</i>
1888 June 6.	R.	Roy, Kumár Devendro Nárayan. <i>Calcutta.</i>
1890 Mar. 5.	N.R.	Roy, Mahárájá Girjanath. <i>Dinagepore.</i>
1888 June 6.	R.	Roy, Peary Mohun. <i>Calcutta.</i>
1885 Mar. 4.	R.	Rustomjee, H. M. <i>Calcutta.</i>
1889 June 5.	N.R.	Sadler, Major J. Hayes, B. S. C. <i>Muscat.</i>
1893 Aug. 2.	R.	Samajpati, Suresh Chundra. <i>Calcutta.</i>
1887 June 1.	N.R.	Sandberg, The Rev. Graham, B. A., Barrister-at-Law, Inner Temple. Chaplain. <i>Subathu.</i>
1867 April 3.	R.	Sarkár, Dr. Mahendralál, C. I. E. <i>Calcutta.</i>
1885 Mar. 4.	R.	Sarvadhikári, Ráj Kumár, Rai Bahádúr. <i>Calcutta.</i>
1893 Jan. 11.	L.M.	Scindia, His Highness the Maharajah.
1888 Feb. 1.	A.	Sclater, William Lutley, M. A. <i>Europe.</i>
1874 July 1.	R.	Scully, Dr. John. <i>Calcutta.</i>
1888 Sept. 27.	R.	Sen-Gupta, Kali Prasanna. <i>Calcutta.</i>
1886 Mar. 3.	N.R.	Sen, Hirálal, Excise Department. <i>Dinagepore.</i>
1885 April 1.	R.	Sen, Narendranáth. <i>Calcutta.</i>
1885 April 1.	N.R.	Sen, Yadunáth. <i>Balia, via Cuttack.</i>
1885 Feb. 4.	R.	Shástri, Pandit Haraprasád, M. A. <i>Calcutta.</i>
1892 Dec. 7.	A.	Shawe, F. B. <i>Europe.</i>

Date of Election.		
1891 June 3.	N.R.	Shillingford, Frederick Alexander. <i>Purneah.</i>
1889 Nov. 6.	N.R.	Simpson, Edmund James, L. R. C. P. E., F. L. P. S. G., L. M. G. E., Civil Surgeon. <i>Rai Bareili.</i>
1887 April 6.	R.	Simpson, Dr. W. J., Health Officer. <i>Calcutta.</i>
1869 Feb. 3.	N.R.	Singh, Mahámahopádhyáya Sirdár Sir Attar, Bahá- dur, K. C. I. E., M. U. F., Chief of Bhádour. <i>Ludiana.</i>
1893 Mar. 1.	N.R.	Singh, Maharajah Kumara Sirdar Bharat, c. s. <i>Rai Bareili</i>
1880 June 2.	N.R.	Singh, Thákur Garuradhawaya Prasád, Rájá of Beswan. <i>Beswan Fort, Aligarh.</i>
1878 Oct. 4.	N.R.	Singh, Rájá Lachman. <i>Agra.</i>
1877 June 6.	N.R.	Singh, H. H. the Hon. Maharaja Sir Luchmessur, Bahádur, K. C. I. E. <i>Darbhanga.</i>
1892 Mar. 2.	L.M	Singh, The Hon. Raja Oodaypratab. <i>Binga.</i>
1889 Aug. 29.	N.R.	Singh, H. H. Prabhunarain, Bahádur, Mahárájá of Benares.
1859 Aug. 3.	N.R.	Singh, H. H. the Hon. Maharaja Pratap Narain. <i>Ajodhya, Oudh.</i>
1889 Nov. 6.	N.R.	Singh, The Hon. Rájá Rameshwara, Bahádur. <i>Dar- bhanga.</i>
1894 Feb. 7.	N.R.	Singh, H. H. Raja Vishwanath, Bahadur, Chief of Chhatarpur.
1859 Aug. 3.	R.	Siñha, Baláichánd. <i>Calcutta.</i>
1893 April 5.	N.R.	Siñha, Raja Bhupendra, Bahadur, Raja of Bijoypur. <i>Mirzapore.</i>
1894 July 4.	N.R.	Siñha, Kunwar Kushal Pal, M. A. <i>Narki P. O. Agra District.</i>
1872 Aug. 5.	N.R.	Skrefsrud, The Rev. L. O., Indian Home Mission to the Santháls. <i>Rampur Hát.</i>
1891 Dec. 2.	A.	Smith, A. Mervyn, C. E., F. S. A. <i>Europe.</i>
1885 Nov. 4.	A.	Smith, N. F. F. <i>Europe.</i>
1874 June 3.	N.R.	Smith, Vincent Arthur, c. s. <i>Gorakhpur.</i>
1890 April 2.	A.	Solf, Dr. W. H. <i>Europe.</i>
1891 Aug. 27.	N.R.	Stein, Dr. M. A. <i>Lahore.</i>
1872 July 3.	A.	Stephen, Carr., B. L. <i>Europe.</i>
1864 Aug. 11.	R.	Swinhoe, W., Attorney-at-Law. <i>Calcutta.</i>
1868 June 3.	R.	Tagore, The Hon. Mahárájá Sir Jotendra Mohun, Bahádur, K. C. S. I. <i>Calcutta.</i>
1893 Aug. 31.	N.R.	Tate, G. P., Survey of India. <i>Quetta.</i>
1865 Sept. 6.	A.	Tawney, C. H., C. I. E., M. A. <i>Europe.</i>
1884 May 5.	N.R.	Taylor, W. C., Settlement Officer. <i>Khurda.</i>
1878 June 5.	N.R.	Temple, Major. R. C., s. c. <i>Rangoon.</i>
1875 June 2.	N.R.	Thibaut, Dr. G., Professor, Muir Central College. <i>Allahabad.</i>
1886 Aug. 4.	R.	Thomas, Robert Edmond Skyring. <i>Calcutta.</i>
1892 Jan. 6.	N.R.	Thompson, H. N. <i>Mouyva.</i>

Date of Election.		
1847 June 2.	L.M.	Thuillier, Major-Genl. Sir Henry Edward Landor, B. A., C. S. I., F. R. S. <i>Europe.</i>
1889 Mar. 6.	R.	Thuillier, Colonel. H. R., B. E., Surveyor-General of India. <i>Calcutta.</i>
1891 Aug. 27.	N.R.	Thurston, Edgar. <i>Madras.</i>
1871 April 5.	F.M.	Trefftz, Oscar. <i>Europe.</i>
1861 June 5.	L.M.	Tremlett, James Dyer, M. A., C. S. <i>Europe.</i>
1893 May 3.	N.R.	Vandja, Raja Ram Chandra. <i>Mayurbhanga, District Balasore.</i>
1890 Feb. 5.	N.R.	Venis, Arthur, M. A., Former Boden Sanskrit Scholar, Oxford, Principal, Sanskrit College, Benares., Professor, Queen's College. <i>Benares.</i>
1885 May 6.	R.	Verdeau, Ivan. <i>Calcutta.</i>
1894 Sept. 27.	L.M.	Vost, Surgeon-Captain William. <i>Bahraich, Oudh.</i>
1889 Nov. 6.	A.	Walsh, Surgeon-Captain J. H. Tull, Indian Medical Service. <i>Europe.</i>
1865 May 3.	R.	Waterhouse, Col. James, B. S. C., Assistant Surveyor-General, Survey of India. <i>Calcutta.</i>
1887 Oct. 6.	N.R.	Watson, Lieut. Edward Yerbury. <i>Bangalore.</i>
1874 July 1.	N.R.	Watt, Dr. George, C. I. E. <i>Simla.</i>
1892 Aug. 3.	R.	Whitehead, The Rev. Henry. <i>Calcutta.</i>
1891 May 6.	R.	Wilson, Charles Robert, M. A., Bengal Education Service. <i>Calcutta.</i>
1892 Jan. 6.	N.R.	Woodburn, The Hon. J., C. S. <i>Nagpur.</i>
1894 Sept. 27.	R.	Woodroffe, John George, Barrister-at-Law. <i>Calcutta.</i>
1873 Aug. 6.	N.R.	Woodthorpe, Col. Robert Gossett, C. B., B. E., Deputy Quarter-Master-General. <i>Simla.</i>
1894 Aug. 3.	N.R.	Wright, Henry Nelson, C. S. <i>Dehra Dún.</i>

## SPECIAL HONORARY CENTENARY MEMBERS.

Date of Election.	
1884 Jan. 15.	Dr. Ernst Haeckel, Professor in the University of <i>Jena</i> .
1884 Jan. 15.	Charles Meldrum, Esq., M. A., F. R. S. <i>Mauritius</i> .
1884 Jan. 15.	A. H. Sayce, Esq., Professor of Comp. Philology. <i>Oxford</i> .
1884 Jan. 15.	Monsieur Emile Senart, Member of the Institute of France. <i>Paris</i> .
1884 Jan. 15.	Sir Monier Monier-Williams, <i>Knt.</i> , K. C. I. E., M. A., D. C. E., LL. D., Boden Prof. of Sanskrit. <i>Oxford</i> .

## HONORARY MEMBERS.

1848 Feb. 2.	Sir J. D. Hooker, K. C. S. I., C. B., M. D., D. C. L., F. R. S., F. G. S. <i>Kew</i> .
1853 April 6.	Major-General Sir H. C. Rawlinson, K. C. B., D. C. L., F. R. S., <i>London</i> .
1860 Mar. 7.	Professor Max Müller. <i>Oxford</i> .
1860 Nov. 7.	Dr. Albrecht Weber. <i>Berlin</i> .
1872 June 5.	Prof. T. H. Huxley, LL. D., PH. D., F. R. S., F. G. S., F. Z. S., F. L. S. <i>London</i> .
1875 Nov. 3.	Dr. O. Böhtlingk. <i>Leipzig</i> .
1879 June 4.	Prof. E. B. Cowell, D. C. L. <i>Cambridge</i> .
1879 June 4.	Dr. A. Günther, V. P. R. S. <i>London</i> .
1879 June 4.	Dr. J. Janssen. <i>Paris</i> .
1879 June 4.	Prof. P. Regnaud. <i>Lyons</i> .
1881 Dec. 7.	Professor Hermann L. E. Helmholtz. <i>Berlin</i> .
1881 Dec. 7.	Dr. Rudolph v. Roth. <i>Tübingen</i> .
1881 Dec. 7.	Sir William Thompson, <i>Knt.</i> , LL. D., F. R. S., F. R. S. E., <i>Glasgow</i> .
1888 Feb. 7.	W. T. Blanford, Esq., A. R. S. M., F. R. S., F. G. S., F. R. G. S., F. Z. S. <i>London</i> .
1883 Feb. 7.	Alfred Russell Wallace, Esq., F. L. S., F. R. G. S. <i>Parkstone, Dorsetshire</i> .
1894 Mar. 7.	Sir William Henry Flower, K. C. B., D. C. L. <i>London</i> .
1894 Mar. 7.	Dr. Edward Frankland, D. C. L., F. R. S. <i>Reigate</i> .
1894 Mar. 7.	Monsieur Louis Pasteur. <i>Paris</i> .
1894 Mar. 7.	Sir George Gabriel Stokes, Bart, F. R. S. <i>Cambridge</i> .
1894 Mar. 7.	Mahámahopádhya Chandra Kanta Tarkalankara. <i>Calcutta</i> .
1894 Mar. 7.	Professor Theodor Noeldeke. <i>Strassburg</i> .
1894 Mar. 7.	Dr. Reinhold Rost, C. I. E., LL. D. <i>London</i> .

## CORRESPONDING MEMBERS.

Date of Election.	
1844 Oct. 2.	Macgowan, Dr. J. <i>Europe.</i>
1856 July 2.	Krämer, A. von. <i>Alexandria.</i>
1856 July 2.	Porter, The Rev. J. <i>Belfast.</i>
1861 July 3.	Gösche, Dr. R. <i>Berlin.</i>
1862 Mar. 3.	Murray, A. <i>London.</i>
1866 May 7.	Schlagintweit, Prof. E. von. <i>Berlin.</i>

## ASSOCIATE MEMBERS.

1874 April 1.	Lafont, The Rev. Fr. E., S. J., C. I. E. <i>Calcutta.</i>
1875 Dec. 1.	Bate, The Rev. J. D. <i>Allahabad.</i>
1875 Dec. 1.	Abdul Hai, Maulvie, <i>Madrassah. Calcutta.</i>
1882 June 7.	Giles, Herbert. <i>Europe.</i>
1883 Feb. 7.	Rodgers, C. J. <i>Amritsar.</i>
1884 Aug. 6.	Moore, F., F. R. S., F. L. S. <i>London.</i>
1885 Dec. 2.	Führer, Dr. A. <i>Lucknow.</i>
1886 Dec. 1.	Dás, Saratchandra., C. I. E. <i>Calcutta.</i>
1892 April 6.	Samasrami, Satyavrata. <i>Calcutta.</i>
1892 Dec. 7.	Brühl, P. J. <i>Seebpúr.</i>

LIST OF MEMBERS WHO HAVE BEEN ABSENT FROM  
INDIA THREE YEARS AND UPWARDS.\*

\* *Rule 40.*—After the lapse of 3 years from the date of a member leaving India, if no intimation of his wishes shall in the interval have been received by the Society, his name shall be removed from the List of Members.

The following members will be removed from the next Member List of the Society, under the operation of the above Rule:—

Lieutenant-Colonel Henry Wilberforce Clarke, R. E.  
 Walter Henry Parkar Driver, Esq.  
 G. Hughes, Esq., C. S.  
 Philip Lake, Esq., B. A.  
 J. Bridges Lee, Esq., M. A., F. E. S., F. C. S., F. Z. S.  
 William Lutley Sclater, Esq., M. A.  
 N. F. F. Smith, Esq.  
 Dr. W. H. Solf.  
 Carr Stephen, Esq., B. L.

LOSS OF MEMBERS DURING 1894.

BY RETIREMENT.

Count H. Condanhove.  
 Samuel R. Elson, Esq.  
 Maulvie Golám Sarwar.  
 Lieutenant W. A. Harrison, R. E.  
 Colonel H. S. Jarrett, B. S. C.  
 Dr. W. King, B. A.  
 Brigade-Surgeon Kenneth Macleod, M. D.  
 Captain Malcolm John Meade, S. C.  
 T. F. Peppé, Esq.  
 John Henry Rivett-Carnac, Esq., C.I.E., F.S.A., C.S.  
 R. Sewell, Esq., M. C. S.  
 Rai Bahadur Dhanapati Singh, Dughar  
 Dr. Laurence Austine Waddell, M. B.

---

BY DEATH.

*Ordinary Members.*

Babu Gyanendra Kumar Rai Chaudhuri.  
 Prince Iskander Ali Mirza.  
 General Robert Maclagan, R.E., LL.D., F.R.S.E., F.R.E.S. (Life Member).  
 Babu Yadulal Mallik.  
 Babu Bhudeva Mukerjea, C. I. E.  
 W. M. Osmond, Esq.  
 The Hon. Ajodhianath Pandit (Life Member.)  
 John Parry Scotland, Esq., C. E.  
 Mahámahopadhyáya Kaviraj Shymaladás.  
 Kumar Indra Chandra Singh.

---

*Honorary Members.*

B. H. Hodgson, Esq.  
 Professor H. Milne-Edwards.  
 Dr. Warner Siemens.  
 Dr. Aloys Sprenger.  
 Professor William Dwight Whitney.

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BY REMOVAL.

*Under Rule 40.*

Surgeon-General G. Bidie, C. I. E., F.L.S., M.B.

John Hadden Fisher, Esq., C. S.

E. Gay, Esq., M.A., F.R.A.S.

William Grierson Jackson, Esq., C. S.



[APPENDIX.]

ABSTRACT STATEMENTS  
OF  
RECEIPTS AND DISBURSEMENTS  
OF THE  
*ASIATIC SOCIETY OF BENGAL*  
FOR  
THE YEAR 1894.

# STATEMENT

## *Asiatic Society*

### Dr.

				To ESTABLISHMENT.				Rs. As. P.		Rs. As. P.	
Salaries	...	...	...	...	8,187	3	4				
Commission	...	...	...	...	377	7	0				
Pension	...	...	...	...	48	0	0			8,612	10
										4	
				To CONTINGENCIES.							
Stationery	...	...	...	...	140	12	5				
Lighting	...	...	...	...	33	0	0				
Taxes	...	...	...	...	819	0	0				
Postage	...	...	...	...	527	0	0				
Freight	...	...	...	...	1	8	0				
Meeting	...	...	...	...	72	8	0				
Repairs	...	...	...	...	1,761	6	0				
Miscellaneous	...	...	...	...	165	7	5			8,520	9
										10	
				To LIBRARY AND COLLECTIONS.							
Books	...	...	...	...	807	4	8				
Local Periodicals	...	...	...	...	16	0	0				
Binding	...	...	...	...	1,011	4	0				
Furniture	...	...	...	...	199	0	0			2,033	8
										8	
				To PUBLICATIONS.							
Journal, Part I	...	...	...	...	2,508	4	6				
Journal, Part II	...	...	...	...	3,241	8	9				
Journal, Part III	...	...	...	...	1,426	5	9				
Proceedings	...	...	...	...	1,253	8	6			8,429	11
										6	
To Printing charges of Circulars, Receipt-forms, &c.	...	...	...	...						179	8
To PERSONAL ACCOUNT (Writes off and Miscellaneous)	...	...	...	...						325	10
										0	
				To EXTRAORDINARY EXPENDITURE.							
Auditor's fee	...	...	...	...						100	0
										0	
				To Balance						1,43,585	1
										1	
				Total Rs.						1,61,786	11
										5	

No. 1.  
of Bengal.

---

Cr.

	Rs.	As.	P.	Rs.	As.	P.
By Balance from last report ...				1,42,830	10	10

BY CASH RECEIPTS.

Publications sold for cash ...	52	0	0			
Interest on Investments ...	6,307	10	6			
Rent of two rooms on the ground floor of the Society's Buildings ...	840	0	0			
Allowance from Government of Bengal for the publication of Journal Part III, containing Anthropological and Cognate Subjects ...	2,000	0	0			
Ditto ditto from Chief Commissioner of Assam ...	1,000	0	0			
Miscellaneous ...	80	10	0			
				10,280	4	6

BY PERSONAL ACCOUNT.

Compounding fees ...	600	0	0			
Admission fees ...	416	0	0			
Subscriptions ...	7,327	0	0			
Sales on credit ...	273	13	0			
Miscellaneous ...	58	15	1			
				8,675	12	1

Total Rs. ...	1,61,786	11	5
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ALEX. PEDLEE,  
Honorary Secretary and Treasurer,  
Asiatic Society of Bengal.

Examined and found correct.  
MEUGENS, KING & SIMSON,  
Auditors.

## STATEMENT

### *Oriental Publication Fund in Account*

---

Dr.

				Rs.	As.	P.	Rs.	As.	P.
To CASH EXPENDITURE.									
Printing charges	...	...	...	4,305	8	0			
Editing charges	...	...	...	2,575	6	0			
Salaries	...	...	...	1,331	2	8			
Freight	...	...	...	47	2	0			
Stationery	...	...	...	36	4	0			
Postage	...	...	...	223	15	3			
Commission on collecting bills	...	...	...	82	12	1			
Contingencies	...	...	...	17	18	6			
							8,569	15	6
To PERSONAL ACCOUNT (Writes off and Miscellaneous)							77	4	0
			To Balance				8,368	9	9
Total Rs.							17,015	13	3

## No. 2.

*with the Asiatic Society of Bengal.*

## Cr.

			Rs.	As. P.	Rs.	As. P.
By Balance from last report ...	...	...	...		5,571	15 11
<b>BY CASH RECEIPTS.</b>						
Government allowance ...	...	...	9,000	0 0		
Publications sold for cash ...	...	...	778	2 6		
Advances recovered ...	...	...	60	9 6		
					9,838	12 0
<b>BY PERSONAL ACCOUNT.</b>						
Sales on credit ...	...	...	...		1,605	1 4
			<b>Total Rs. ...</b>		<b>17,015</b>	<b>13 3</b>

ALEX. PEDLER,

*Honorary Secretary and Treasurer,**Asiatic Society of Bengal.*

Examined and found correct.

MEUGENS, KING &amp; SIMSON,

*Auditors.*

**STATEMENT**  
*Sanskrit Manuscript Fund in Account*

---

Dr.

				Rs.	As. P.	Rs.	As. P.
TO CASH EXPENDITURE.							
Salaries	...	...	...	1,089	0 0		
Travelling charges	...	...	...	462	5 0		
Purchase of manuscripts	...	...	...	546	0 0		
Copying charges	..	...	...	14	4 0		
Contingencies	...	...	...	255	2 0		
						2,366	11 0
			To Balance	...		5,844	14 10
			Total Rs.	...		8,211	9 10

No. 3.

*with the Asiatic Society of Bengal.*

Cr.

					Rs.	As.	P.
By Balance from last report	...	...	...	...	4,986	9	10
BY CASH RECEIPT.							
Government allowance	...	...	...	...	3,200	0	0
BY PERSONAL ACCOUNT.							
Sales on credit	...	...	...	...	25	0	0
Total Rs.					8,211	9	10

ALEX. PEDLER,  
*Honorary Secretary and Treasurer,*  
*Asiatic Society of Bengal.*

Examined and found correct  
 MEUGENS, KING & SIMSON,  
*Auditors.*



## STATEMENT

*Personal*

Dr.

	Rs.	As.	P.	Rs.	As.	P.
To Balance from last report ...	...	...	...	4,784	10	1
To CASH EXPENDITURE.						
Advances for purchase of Sanskrit MSS., &c. ...	...	...	...	544	1	0
To Asiatic Society ...	...	...	...	8,675	12	1
To Oriental Publication Fund ...	...	...	...	1,605	1	4
To Sanskrit MSS., Fund ...	...	...	...	25	0	0
				10,805	13	5

Total Rs. ...	15,634	8	6
---------------	--------	---	---

No. 4.

*Account.*

Cr.

				Rs.	As.	P.	Rs.	As.	P.
By Cash receipts ...	...	...	...	10,321	11	1			
By Asiatic Society ...	...	...	...	325	10	0			
By Oriental Publication Fund ...	...	...	...	77	4	0			
							<u>10,724</u>	<u>9</u>	<u>1</u>

By Balances.	Due to the Society.			Due by the Society.					
	Rs.	As.	P.	Rs.	As.	P.			
Members ...	4,675	9	5	207	9	5			
Subscribers ...	52	14	0	64	10	6			
Employés ...	30	0	0	250	0	0			
Agents ...	169	2	6	0	0	0			
Miscellaneous ...	669	4	0	164	10	7			
	<u>5,596</u>	<u>18</u>	<u>11</u>	<u>686</u>	<u>14</u>	<u>6</u>			<u>4,909 15 5</u>
							Total Rs. ...		<u>15,634 8 6</u>

**ALEX. PEDLER,***Honorary Secretary and Treasurer,**Asiatic Society of Bengal.*

Examined and found correct.

**MEUGENS, KING & SIMSON,***Auditors.*

## STATEMENT

### *Invest*

Dr.

	Nominal.			Actual.		
	Rs. As. P.			Rs. As. P.		
	To Balance from last report	...	...	1,37,700 0 0	1,37,270	13
To Cash	...	...	10,000 0 0	10,380	11	2
<b>Total Rs.</b>	...	...	<u>1,47,700 0 0</u>	<u>1,47,651</u>	<u>8</u>	<u>6</u>

*FUNDS.	ACTUAL.						TOTAL.		
	Permanent.			Temporary.					
	Rs.	As.	P.	Rs.	As.	P.	Rs.	As.	P.
Asiatic Society	1,38,061	1	7	8,304	10	2	1,46,355	11	9
Trust Fund	1,295	12	9	0	0	0	1,295	12	9
	<u>1,39,346</u>	<u>14</u>	<u>4</u>	<u>8,304</u>	<u>10</u>	<u>2</u>	<u>1,47,651</u>	<u>8</u>	<u>6</u>

## STATEMENT

### *Trust*

Dr.

						Rs. As. P.
To Pension	...	...	...	...	...	48 0 0
To Balance	...	...	...	...	...	1,843 3 10
<b>Total Rs.</b>	...	...	...	...	...	<u>1,891 3 10</u>

No. 5.  
*ments.*

		Cr.							
		Nominal.			Actual.				
		Rs. As. P.			Rs. As. P.				
By Balance * ...				1,47,700	0	0	1,47,651	8	6
Total Rs.									

**ALEX. PEDLER,**  
*Honorary Secretary and Treasurer,*  
*Asiatic Society of Bengal.*

Examined and found correct.  
**MEUGENS, KING & SIMSON,**  
*Auditors.*

No. 6.  
*Fund.*

		Cr.							
					Rs. As. P				
By Balance from last report ...							1,339	3	10
By Interest on Investments ...							52	0	0
Total Rs. ...									

**ALEX. PEDLER,**  
*Honorary Secretary and Treasurer,*  
*Asiatic Society of Bengal.*

Examined and found correct.  
**MEUGENS, KING & SIMSON,**  
*Auditors.*

## STATEMENT

### *Cash*

Dr.				Rs. As P.		
To Balance from last report ...	...	...	...	12,678	1	0
RECEIPTS.						
To Asiatic Society ...	...	...	...	10,260	4	6
To Oriental Publication Fund ...	...	...	...	9,838	12	0
To Sanskrit Manuscript Fund ...	...	...	...	3,200	0	0
To Personal Account ...	...	...	...	10,321	11	1
To Trust Fund ...	...	...	...	52	0	0
Total Rs. ...				46,365	12	7

## STATEMENT

### *Balance*

Dr.				Rs. As P.		
To Cash ...	...	...	...	6,580	5	7
To Investments ...	...	...	...	1,47,651	8	6
To Personal Account ...	...	...	...	4,909	15	5
Total Rs. ...				1,59,141	13	6

No. 7.

*Account.*

Cr.

					Rs. As. P.
EXPENDITURE.					
By Asiatic Society	...	...	...	...	17,876 0 4
By Oriental Publication Fund	...	...	...	...	8,569 15 6
By Sanskrit Manuscript Fund	...	...	...	...	2,366 11 0
By Personal Account	...	...	...	...	544 1 0
By Trust Fund	...	...	...	...	48 0 0
By Investments	...	...	...	...	10,380 11 2
By Balance	...	...	...	...	6,580 5 7
Total Rs. ...					46,365 12 7

ALEX. PEDLER,  
*Honorary Secretary and Treasurer,*  
*Asiatic Society of Bengal.*

Examined and found correct.  
 MEUGENS, KING & SIMSON,  
*Auditors.*

No. 8.

*Sheet.*

Cr.

					Rs. As. P.
By Asiatic Society	...	...	...	...	1,43,585 1 1
By Oriental Publication Fund	...	...	...	...	8,368 9 9
By Sanskrit Manuscript Fund	...	...	...	...	5,844 14 10
By Trust Fund	...	...	...	...	1,343 3 10
Total Rs. ...					1,59,141 13 6

ALEX. PEDLER,  
*Honorary Secretary and Treasurer,*  
*Asiatic Society of Bengal.*

Examined and found correct.  
 MEUGENS, KING & SIMSON,  
*Auditors.*



PROCEEDINGS  
OF THE  
ASIATIC SOCIETY OF BENGAL.

EDITED BY  
THE HONORARY SECRETARIES.



JANUARY TO DECEMBER,  
1896.



CALCUTTA :  
PRINTED AT THE BAPTIST MISSION PRESS,  
AND PUBLISHED BY THE  
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1897.





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PROCEEDINGS  
OF THE  
ASIATIC SOCIETY OF BENGAL,  
FOR JANUARY, 1896.

---

The Monthly General Meeting of the Asiatic Society of Bengal was held on Wednesday, the 8th January, 1896, at 9 P. M.

ALEXANDER PEDLER, F. R. S., President, in the chair.

The following members were present:—

Moulvie Abdus Salam, Dr. A. W. Alcock, Dr. A. R. Anderson, Dr. A. F. R. Hoernle, His Grace Archbishop Dr. Paul Goethals, Dr. G. A. Grierson, Bābū Pañcānana Mukherjee, Pañdit Harimohan Vidyabhushan, Babu Mahendranath Rāy, Pañdit Haraprasād Čāstri, C. R. Wilson, Esq.

Visitor:—Monsieur A. Foucher.

The minutes of the last meeting were read and confirmed.

Twenty-six presentations were announced, details of which are given in the Library List appended.

The following gentlemen duly proposed and seconded at the last meeting of the Society were balloted for and elected ordinary members:—

R. Paget Dowhurt, Esq.  
Richard Burn, Esq.  
G. Place, Esq.  
Dr. Arnold Caddy.

The following gentlemen are candidates for election at the next meeting :—

W. C. Macpherson, Esq., I. C. S., proposed by Dr. G. A. Grierson, seconded by Dr. A. F. R. Hoernle.

Surgeon-Lieutenant Charles E. Williams, I. M. S., 6th Punjab Infantry, Edwardesabad, proposed by Dr. G. A. Grierson, seconded by C. R. Wilson, Esq.

The following gentlemen have expressed a wish to withdraw from the Society :—

Major J. Hayes Sadler, B. S. C.

Dr. G. H. D. Gimlette, M.D.

The PHILOLOGICAL SECRETARY exhibited a personal relic of General Cunningham.

Paṇḍit Haraprasād Čāstri exhibited a second set of Viṣṇupur Circular Cards and read the following note.

A single pack contains forty-eight cards, in twelve groups of four each. The first four have each a figure, which though apparently a female figure, on closer examination appears to be the figure of a Malla king dressed in female attire. This is the Ace. The second four have two wrestlers. These are valued at two. The third four have three leaves. The fourth four have four conch shells; the fifth, five flowers; the sixth, six carpet cushions; the seventh, seven swords; the eighth eight *Bakula* fruits; the ninth, nine full blown flowers; the tenth, ten plums. The eleventh four have each a horseman and the twelfth each an elephant rider. They are valued at 11 and 12 respectively.

The point of the game is this. He who gets the number seventeen first in a group of four players, wins the stakes. The cards are first shuffled then cut by the right-hand man, and one card is dealt to each player from right to left. Then the right-hand man is given another card. If he gets more than seventeen he loses the stakes and throws away his cards; if he gets seventeen he wins; if he gets less, he has the option of either demanding another card or allowing cards to be given to others. If nobody gets seventeen, nobody wins. If a man gets two horses, two elephants, two aces and two twos, he also wins.

Some of the designs in this pack are the same as in the Viṣṇupur Circular Cards already described in *Journal*, Part I, p. 284. But others are not. The elephant rider, the horseman, the wrestlers and the king in the Ace remind one of the *Aśvapatis*, *Gajapatis* and

Narapatis Rājyatrāyādhipatis so often mentioned in the inscriptions of the twelfth and thirteenth centuries.

The following papers were read :—

1. *On the Radical and Participial Tenses of the Modern Indo-Aryan Languages.*—By G. A. GRIERSON, Esq., Ph. D., C. I. E.

The paper will be published in the *Journal*, Part I.

2. *Chronology of the Sēna kings of Bengal.*—By Babu NAGĒNDRA-NĀTHA VASU.

(Abstract).

Though considerable research has been made to construct a genuine history of the Sēna kings, yet much remains to be done. The following conclusions are the abstract of the results of my perusal of the manuscripts of the *Dāna-sāgara*, the *Kārikās* of *Ēdū-miçra* and *Hari-miçra*, and other books, the genealogy of the *Candra-dvīpa* dynasty, and a newly discovered copper-plate.

1. After the reign of *Ādi-çūra* and his descendants, the *Pāla* kings ascended the throne of Bengal. The *Sēna* kings flourished after the *Pāla* kings.

2. *Vijaya-sēna's* son, *Ballāla-sēna*, wrote the *Dāna-sāgara* in 1169 A.D., and ruled Bengal for 50 years. After ascending the throne, *Ballāla* set out for the conquest of *Mithilā*, and while there, he heard the news of his son *Lakṣmaṇa's* birth. There he inaugurated the *Lakṣmaṇa* era in 1119, in commemoration of his son's birth.

3. *Ballāla's* son, *Lakṣmaṇa-sēna*, established, after his father, kulinism among the *Brāhmaṇas*. He reigned for 27 or 28 years from 1170 to 1198-99 A.D., when Bengal was conquered by *Muḥammad-i-Bakhtīār*.

4. According to the *Āin-i-Akbarī*, *Mādhava-sēna* and *Kēçava-sēna* ruled Bengal in succession, after their father *Lakṣmaṇa-sēna*. But in my opinion they never ascended the throne. They were probably governors of provinces, or regents of their father, during his life-time. Following the advice of the *Paṇḍits*, *Mādhava-sēna* left his father's kingdom, and went on a pilgrimage to *Kedāranātha*, a fact corroborated by the existence of a copper-plate grant of *Mādhava-sēna* in the *Yōgēçvara* temple near the city of *Almora* in *Kumāun*.

5. *Kēçava-sēna*, likewise, went away for fear of the *Muhamadans*, and took refuge in the court of some king,—probably *Viçvarūpa-sēna*, another son of *Lakṣmaṇa-sēna*, and described as the terrible destroyer of the *Yavana* dynasty in the copper-plate grant of the 14th year, noticed by me in the last meeting, and who I suppose formally ascended the throne in 1200 or 1201 A.D.

6. According to the ancient Kārikās of Kulācāryas, Danaujā-mādhava, grandson of Lakṣmaṇa-sēna established kulinism among the Brahmanas and Vangaja kāyasthas. Ābū-l-faẓl mentions one Rājā Nōjāh as reigning after Sadā-sēna. This Nōjāh, is no doubt, Danaujā of the Kārikās and the Dananja Rāya of the Tārīkh-i Firōz-Shāhi. But none of them tells us his father's name. He is probably son and successor either of Viçvarūpa or of Sadā-sēna. According to the genealogy of the Candra-Dvipa kings, Danaujā-mādhava is the founder of that family. His fifth descendant Jaya-dēva died without male issue, and so the kingdom passed to his daughter's son Paramānanda of the Vasu family. After 7 Rājās from Paramānanda had succeeded to the throne, the son of the last king's sister, namely Udayanarāyaṇa of the Mitra family inherited the kingdom. His descendants are now living at Mādhavapāçā.

7. There was another king named Ballāla, who was a Vaidya and reigned at Vikrama-pura, and is described by his teacher Gōpāla-bhaṭṭa in his 'Ballāla-carita' written in 1378 A.D. This often leads to the error that the Sēna kings of Bengal were Vaidyas. Ballāla-sēna son of Vijaya-sēna and father of Lakṣmaṇa-sēna lived about 250 years previous to this Vaidya Ballāla, who was probably a zamindār of note, and at the time of the dismemberment of the kingdom of Bengal rose to some eminence.

The paper will be published in full in the *Journal*, Part I.

## LIBRARY.

The following additions have been made to the Library since the meeting held in December last:—

### TRANSACTIONS, PROCEEDINGS AND JOURNALS,

*presented by the respective Societies and Editors.*

- Baltimore. Johns Hopkins University, — Circulars, Vol. XV, No. 121.  
 Bombay. Anthropological Society of Bombay, — Journal, Vol. III,  
 No. 7.  
 ——. Bombay Natural History Society, — Journal, Vols. IX, Nos. 5;  
 X, 1.  
 Brussels. La Société Royale Malacologique de Belgique, — Annales,  
 Tome XXVII.  
 ——. ——. Procès-Verbal, 5 Novembre, 1892.  
 ——. ——. Procès-Verbaux des Séances, Tome XXII-XXIV.

- Calcutta. Indian Engineering, — Vols. XVIII, Nos. 23–26; XIX, 1.  
 ———. Indian Lancet, — Vols. VI, Nos. 12; VII, 1.  
 ———. Maha-bodhi Society, — Journal, Vol. IV, No. 9.
- Chicago, Ill. The American Antiquarian and Oriental Journal—Vol. XVII, No. 5.
- Frankfurt, a. O. Des Naturwissenschaftlichen Vereins des Reg.-Bez. Frankfurt, — Helios, Jahrg XIII, Nrn 1–6.  
 ———. ———. Societatum Litteræ, Jahrg IX, Nrn 4–9.
- Havre. Société de Géographie Commerciale du Havre, — Bulletin, Septembre-Octobre, 1895.
- The Hague. De Nederlandsche Entomologische Vereeniging, — Tijdschrift voor Entomologie, Deel XXVIII.
- Leipzig. Der Königl. Sächsischen Gesellschaft der Wissenschaften, — Abhandlungen, philologisch-historischen classe, Band XV, No. 4.
- London. Anthropological Institute of Great Britain and Ireland, — Journal, Vol. XXV, No. 2.  
 ———. The Academy, — Nos. 1229–33.  
 ———. The Athenæum, — Nos. 3552–56.  
 ———. Nature, — Vol. LIII, Nos. 1360–62.  
 ———. Royal Astronomical Society, — Monthly Notices, Vol. LVI, No. 1.  
 ———. Royal Geographical Society, — Geographical Journal, Vol. VI, No. 6.
- Mussoorie. The Indian Forester, — Vol. XXI, No. 12.
- Paris. La Société de Géographie, — Bulletin, Tome XVI, No. 3.  
 ———. ———. Compte Rendu de Séance, No. 13, 1895.  
 ———. La Société Philomathique de Paris, — Comptes-Rendus Sommaire des Séances, Nos. 2 et 3, 1895.
- Philadelphia. American Academy of Political and Social Science, — Annals, Vol. VI, No. 3.
- Rome La Società di Studi Geografici e Coloniali in Firenze, — Bollettino, Tome II, Nos. 8 et 9.  
 ———. La Società Degli Spettroscopisti Italiani, — Memorie, Vol. XXIV, Nos. 8–10.
- Santiago de Chile. Des Deutschen Wissenschaftlichen Vereins zu Santiago de Chile, — Verhandlungen, Band III, Heft 1 und 2.
- St. Petersburg. L'Académie Impériale des Sciences de St. Pétersbourg, — Bulletin, Ve Série, Tome II, No. 5.  
 ———. Der Kaiserlichen Mineralogischen Gesellschaft, — Materialien zur Geologie Russlands, Band XVII.  
 ———. La Société Impériale Russe de Géographie, — Journal, Tome XXXI, No. 4.



- Sydney. Linnean Society of New South Wales,—Proceedings, 2<sup>nd</sup> Series, Vol. X, Part 2.
- Taiping. Perak Government,—Gazette. Vol. VIII, Nos. 29-31.
- Tokio. Der Deutschen Gesellschaft für natur-und völkerkunde ostasiens in Tokio,—Mittheilungen, Vol. VI, Heft 56, und Supplement-Heft II zu Band VI.
- Vienna. Der. K. K. geologischen Reichsanstalt,—Verhandlungen, Nrn 18-10, 1895.
- . Der K. K. zoologisch-botanischen Gesellschaft in Wien,—Verhandlungen, Band XLV, Heft 9.

### BOOKS AND PAMPHLETS,

*presented by the Authors, Translators, &c.*

- GODWIN-AUSTEN, H. H. Description of a supposed new species of Land-Mollusk of the Genus *Parmarion* from Pulo Lant, an Island off the South-east Coast of Borneo. 8vo. London, 1895.
- . List and distribution of the Land-Mollusca of the Andaman and Nicobar Islands, with descriptions of some supposed new species. 8vo. London, 1895.
- LANMAN, CHARLES ROCKWELL. William Dwight Whitney. 8vo. 1895.
- SETH, MRSROVB, J. History of the Armenians in India from the earliest times to the present day. 8vo. Calcutta, 1895.
- WACKERNAGEL, JACOB. Altindische Grammatik. 8vo. Göttingen, 1896.

### MISCELLANEOUS PRESENTATIONS.

- Books on China in the Library of the Essex Institute, Salem, Mass 8vo. Salem, Mass. 1895.

ESSEX INSTITUTE, SALEM, MASS.

- The Budh-Gaya Temple Case. H. Dharmapala *versus* Jaipal Gir and others. Fcp. Calcutta, 1895.

MOHANTH KRISHNA DOYAL GIRI.

- ANDERSON, J. D. A short list of words of the Hill Tippera Language with their English equivalents. 8vo. Shillong, 1885.
- NEEDHAM, J. F. Ouliu Grammar on the Singpho Language. 8vo. Shillong, 1889.
- RAMKHE, M. Bengali-Garo Dictionary, 8vo. Tura, 1887.

GOVERNMENT OF ASSAM.

- General Report on Public Instruction in Bengal for 1894-95. Fcp. Calcutta, 1895.
- Report on publications issued and registered in the several provinces of British India during the year 1894. Fcp. Calcutta. 1895.
- Report on the Rail-borne Traffic of Bengal during the year, 1894-95. Fcp. Calcutta, 1895.

Resolution reviewing the reports on the working of Municipalities in Bengal during the year 1894-95. Fcp. Calcutta, 1895.

GOVERNMENT OF BENGAL.

The Agricultural Ledger, Agricultural Series, Nos. 10 and 15; Medical and Chemical Series, Nos. 1 and 2; Veterinary Series 11 and 14. 8vo. Calcutta, 1894-95.

Records of the Botanical Survey of India, Vol. I, Nos. 5 and 6. 8vo. Calcutta, 1895.

GOVERNMENT OF INDIA, REV. AND AGRI. DEPARTMENT.

MARTIN, L. Einige neue Tagschmetterlinge von Nordost-Sumatra. 8vo. Munich, 1895.

LIONEL DE NICEVILLE, Esq.

Return of Wrecks and Casualties in Indian Waters for the year 1894. Fcp. Calcutta, 1895.

PORT OFFICE, CALCUTTA.

Tide-Tables for the Indian Ports for the year 1896, also January 1897. 8vo. London, 1895.

SURVEY OF INDIA, TIDAL AND LEVELLING OPERATION, POONA.

BARROWS, WALTER B; AND SCHWARZ, E. A. The Common Crow of the United States. 8vo. Washington, 1895.

U. S. DEPARTMENT OF AGRICULTURE, WASHINGTON.

#### PERIODICALS PURCHASED.

Allahabad. North Indian Notes and Queries, — Vol. V, No. 9.

Braunschweig. Jahresbericht über die Fortschritte der Chemie und verwandter Theile anderer Wissenschaften, — Heft V, 1890.

Calcutta. The Calcutta Review, — Vol. CII, No. 203.

———. Indian Medical Gazette, — Vol. XXX, No. 12.

Geneva. Archives des Sciences Physiques et Naturelles, — Tome XXXIV, No. 11.

Leipzig. Annalen der Physik und Chemie, — Band LVI, Heft 11 und 12.

———. ———. Beiblätter, Band XIX, Stück 11.

London. Numismatic Circular, — Vol. IV, No. 37.

Vienna. Vienna Oriental Journal, Vol. IX, No. 3.

#### BOOKS PURCHASED.

Lockhart, J. H. Stewart. The Currency of the Farther East, from the earliest times up to the present day, Vol. I., and plates. 8vo. Hongkong, 1895.

The Mahabharata, translated into English prose, Part 97. 8vo. Calcutta, 1895.

Waddell, L. Austine. The Buddhism of Tibet or Lamaism. 8vo. London, 1895.



PROCEEDINGS  
OF THE  
ASIATIC SOCIETY OF BENGAL,  
FOR FEBRUARY, 1896.

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The Annual Meeting of the Asiatic Society of Bengal was held on Wednesday, the 5th February, 1896, at 9 P.M.

Alexander Pedler, Esq., F. R. S., President, in the chair.

The following members were present :—

Maulvī Abdus Salam, Dr. A. W. Alcock, H. K. W. Arnold, Esq., J. C. Bose, Esq., F. Finn, Esq., Dr. G. A. Grierson, Dr. A. F. R. Hoernle, S. C. Laharry, Esq., C. Little, Esq., J. Mann, Esq., R. D. Mehta, Esq., W. H. Miles, Esq., Bābu Pañcānana Mukherjee, Dr. G. Ranking, Bābu Lakṣhmī Nārāyaṇa Simha, Major R. C. Temple, Dr. G. Watt, C. R. Wilson Esq.,

*Visitors* :—Dr. J. R. Adie, Bābu Jyoti Bhūṣaṇ Bhāduri.

According to the Bye-laws of the Society, the President ordered the voting papers to be distributed for the election of Officers and Members of Council for 1896 and appointed Major R. C. Temple and Mr. J. C. Bose to be Scrutineers.

The President then called upon the Secretary to read the Annual Report.

### ANNUAL REPORT FOR 1895.

The Council of the Asiatic Society have the honour to submit the following Report on the state and progress of the Society's affairs during the past year :—

#### Member List.

During the year under review 29 Ordinary Members were elected, 7 withdrew, 4 died, 16 were removed from the list, *viz.*, 11 under Rule 38

as defaulters, and 5 under Rule 40, being more than 3 years absent from India. The election of one Member was cancelled at his own request as he was contemplating an early return to Europe. Of the Members elected 2 were old Members who rejoined. The total number of Members at the close of 1895 was thus 297 against 295 at the end of the preceding year; of these 108 were Residents, 122 Non-Residents, 12 Foreign, 23 Life, 31 Absent from India and 1 Special Non-Subscribing Member, as will be seen from the following table which also shows the fluctuations in the numbers of Ordinary Members during the past six years:—

YEAR.	PAYING.				NON-PAYING.				GRAND TOTAL.
	Resident.	Non-Resident.	Foreign.	Total.	Life.	Absent.	Special Non-Subscribing.	Total.	
1890 ... ..	105	140	10	255	21	25	2	48	303
1891 ... ..	101	134	10	245	21	27	2	50	295
1892 ... ..	115	127	11	253	22	33	2	57	310
1893 ... ..	116	123	12	251	22	33	2	57	308
1894 ... ..	98	125	12	235	22	36	2	60	295
1895 ... ..	108	122	12	242	23	31	1	55	297

The four Ordinary Members, the loss of whom by death during the year we have to regret, were Mr. Valentine Ball (special non-subscribing member), H. H. the Maharājā of Johore, The Rev. D. G. Latham-Browne and Mr. A. M. Nash.

There were five deaths amongst the Honorary Members, *viz.*, those of Professor Hermann L. E. Helmholtz, Professor T. H. Huxley, Monsieur Louis Pasteur, Major-General Sir H. C. Rawlinson and Dr. Rudolph von Roth. To fill these vacancies and others previously existing, the Society, on the recommendation of the Council, elected as Honorary Members, Dr. George Bühler, The Right Honourable Lord Rayleigh, Lieutenant-General R. Strachey, and Mr. C. H. Tawney. Thus the number of Honorary Members stands at 21.

Intimation of two deaths amongst the Corresponding Members was received, *viz.*, Dr. R. Götsche of Berlin and Mr. A. von Krämer of Alexandria, the number now stands at 4.

The lists of Special Honorary Members and Associate Members continue unaltered from last year, there having been no casualties, their number standing at 5 and 10 respectively.

During the year, one member, Mr. N. D. Beatson-Bell, compounded for his future subscriptions.

#### Indian Museum.

The following presentation made to the Society was transferred to the Indian Museum under the provisions of Act XXII of 1876.

A Diorite plug found in the Banda District, presented by Mr. J. Cockburn and referred to in the Society's *Proceedings* for May and June 1894.

The Trustees on behalf of the Society were:—

Dr. A. F. R. Hoernle.  
A. Pedler, Esq.  
Dr. D. D. Cunningham.  
C. Little, Esq.  
Dr. Mahendralal Sarkar.

#### Finance.

The Accounts of the Society are shown in Statement No. 1, in the Appendix, under the usual heads.

Statement No. 8 contains the Balance Sheet of the Society and of different Funds administered through it.

The Budget Estimate for 1895 was taken at the following figures:—Receipts Rs. 16,844; Expenditure Rs. 16,013.

The actual results were found to be:—Receipts Rs. 18,166-6-11. Expenditure Rs. 13,080-5-11.

The Receipts show an increase of Rs. 1,322-6-11, while the Expenditure shows a decrease of Rs. 2,927-10-1 on the Budget Estimate.

There is an increase in Receipts under the heads of "Subscriptions," "Sale of Publications," "Interest on Investments," "Rent of Rooms" and "Miscellaneous." "Subscriptions" and "Miscellaneous" show a very slight increase, but owing to the large sale of the Society's *Journals* and *Proceedings*, "Sale of Publications" shows an increase of Rs. 1,050-7-2. During the year, Temporary Investments were made and there is thus an increase of Rs. 183 under the head of "Interest on Investments." "Rent of Rooms" also shows an increase of Rs. 60. This is due to the payment in this year by the Photographic Society of India of one month's rent in advance.

On the Expenditure side, the items of "Stationery," "Freight," "Contingencies," "Binding," "Journal Part I," and "Proceedings" show an increase. Owing to new registers being required for the

library, there is an increase of Rs. 33-6-6 under the head of "Stationery." The amount budgetted for under the head of "Freight" has been exceeded by Rs. 10-14-0, an additional box containing the Society's publications having been despatched to the London Agents. There is an increase of Rs. 154-6-9 under the head of "Contingencies." This is due to the carting of good earth for the improvement of the Society's garden and to providing peons with new clothing for the cold weather. During the year, it was found necessary to bind many old works belonging to the Oriental Library, thus there is an increase of Rs. 81-12 under the head of "Binding." "Journal Part I" was estimated for at Rs. 2,100 whilst the actual expenditure was Rs. 3,036-5-0. In February 1894, the Council sanctioned a special grant of Rs. 1,265 for the printing of Major Raverty's article on the "Mihran of Sind and its Tributaries." As reported last year, Rs. 408-4-6 was spent for the printing of the maps only, leaving a balance of Rs. 756-11-6 unexpended. To meet the printing charges, the above balance has been freely drawn on for this purpose. "Proceedings" has exceeded its budget grant by Rs. 26-9-0. This is due to an extra plate.

There were two items of extraordinary expenditure during 1895 under the heads of "Furniture" and "Registration Fees" not provided for in the Budget. After the repairs to the Society's building, none of the book cases could be locked as the almirahs were not on a level and the necessary repairs cost Rs. 79-13-0. In accordance with section 4 of Act XXI of 1860, Rs. 95, was spent in Registration Fees for 19 years from 1877 to 1895.

The Actual expenditure on the "Journal" and "Proceedings" was as follows:—

Journal	{ Part I	...	Rs. 3,036	5	0
	{ Part II	...	...	1,537	9 6
Proceedings	...	...	...	1,026	9 0
			<hr/>		
Total Rs.			5,600	7	6

This is less than the Budget Estimate by Rs. 2,599-8-6.

The Budget Estimate of probable ordinary Receipts and Expenditure for 1896 has been fixed as follows:—Receipts Rs. 16,420. Expenditure Rs. 16,042.

On the Receipts' side, the estimated income under the head of "Interest on Investments" has been increased by Rs. 76 on account of the interest on Temporary Investments. The two years for which the Government of Madras sanctioned an allotment having expired, "Government Allowance" has been reduced by Rs. 500.

On the Expenditure side, the amount budgetted for under "Freight" has been increased by Rs. 20 to provide for the despatch of a greater number of cases of books for sale to the Society's agents.

There is an additional item of Rs. 5 under the head of "Registration Fees" which amount has to be paid yearly.

Beyond the Auditor's fee, no other extraordinary expenditure is anticipated during 1896.

The details of Budget Estimate are as follows :—

<b>Receipts.</b>		
Subscriptions ...	...	Rs. 7,000 0 0
Sale of Publications ...	...	400 0 0
Interest on Investments ...	...	5,200 0 0
Rent of Rooms ...	...	720 0 0
Government Allowances ...	...	3,000 0 0
Miscellaneous ...	...	100 0 0
		Total Rs. 16,420 0 0

<b>Expenditure.</b>		
Salaries ...	...	Rs. 3,400 0 0
Commission ...	...	400 0 0
Pension ...	...	52 0 0
Stationery ...	...	100 0 0
Lighting ...	...	40 0 0
Municipal Taxes ...	...	819 0 0
Postage ...	...	600 0 0
Freight ...	...	30 0 0
Meetings ...	...	80 0 0
Contingencies ...	...	150 0 0
Books ...	...	1,500 0 0
Local Periodicals ...	...	16 0 0
Binding ...	...	500 0 0
Journal Part I ...	...	2,100 0 0
"    "    II ...	...	2,100 0 0
"    "    III ...	...	3,000 0 0
Proceedings ...	...	1,000 0 0
Printing circulars, &c. ...	...	150 0 0
Registration Fees ...	...	5 0 0
		Total Rs. 16,042 0 0



**London Agency.**

The number of copies of parts of the *Journals*, of the *Proceedings*, and of the *Bibliotheca Indica*, sent to Messrs. Luzac and Co., during the year 1895, for sale, were 723, 363 and 556, valued at £ 108-9-0, £ 12-9-9 and Rs. 306-2-0 respectively.

Three invoices of books purchased, and of publications of various Societies sent in exchange, were received during the year. The value of the books purchased amounted to £ 6-7-3.

**Continental Agency.**

The number of copies of parts of the *Journal* and of the *Bibliotheca Indica* sent to Mr. Otto Harrassowitz, the Society's Continental Agent, during 1895, for sale, were 40 and 225, valued at £ 6-0-0 and Rs. 133-2-0 respectively. Other books were sent for sale amounting to Rs. 3-8-0.

**Library.**

The total number of volumes or parts of volumes, added to the Library during the year was 2,080, of which 266 were purchased and 1,814 presented, or received in exchange for the Society's publications.

The compilations of a new edition of the Society's Library Catalogue is far advanced.

**Publications.**

There were published during the year nine numbers of the *Proceedings* (No. 10 of 1894, and Nos. 1 to 8 of 1895), containing 158 pages of letter-press and 4 plates; three numbers of the *Journal*, Part I (No. 4 of 1894 and Nos. 1 and 2 of 1895), containing 300 pages of letter-press and 23 plates; three numbers of the *Journal*, Part II (No. 4 of 1894, and Nos. 1 and 2 of 1895), containing 322 pages of letter-press and 8 plates. The index to the *Journal*, Part I for 1894 was also published.

**Coin Cabinet.**

During the year, 64 coins were added to the Society's Cabinet. Among these, 8 were gold, 15 silver, and 41 copper coins. They belong to the following classes:—Great Kushan 3, Little Kushan 5, Ancient Hindū 29, Punch-marked 5, Muḥammad Karluk 6, Mālwa 6, Moghul 3, Durrānī 1, Old British Mintage 6. All these were acquired under Treasure Trove Act. They belong to well-known types, and detailed notices of them are published in the Society's *Proceedings* for April 1895.

### Office of Secretaries.

Dr. G. A. Grierson carried on the duties of Philological Secretary and Editor of the *Journal*, Part I, throughout the year:—

Dr. A. W. Alcock carried on the duties of Natural History Secretary and Editor of the *Journal*, Part II, till June when he was absent on deputation and Mr. Frank Finn took charge of the work in addition to his own duties as Anthropological Secretary.

Mr. Finn was appointed Anthropological Secretary in May.

Mr. C. Little carried on the duties of Treasurer throughout the year.

Mr. C. R. Wilson carried on the duties of General Secretary and Editor of the *Proceedings* throughout the year except for two months from April to May when Dr. Alcock officiated for him. Dr. Alcock continued for one month when he was absent on deputation, and Dr. G. Ranking agreed to carry on the work till Mr. Wilson's return.

Paṇḍit Haraprasād Čāstrī was in charge of the *Bibliotheca Indica* and the search of Sanskrit Manuscripts, and carried on the duties of Joint Philological Secretary throughout the year.

Mr. J. H. Elliott continued Assistant Secretary and Librarian throughout the year:

Paṇḍit Harimohan Vidyābhūṣhaṇa, the Paṇḍit of the Society was allowed leave, without pay, for 6 months from November and Paṇḍit Annadāprasād Sarasvatī was appointed to officiate in his place.

There were no other changes in the office establishment.

### Bibliotheca Indica.

The editing charges of sixteen and the printing charges of twenty-one fasciculi were paid for; the total outlay being 7,000 rupees in round numbers. The average cost of each fasciculus, including both the charges, is 368 rupees.

A descriptive catalogue of works published is given below:—

#### A. ARABIC-PERSIAN SERIES.

I. The Council sanctioned in the year 1884, the publication of the English translation of the first volume of *Muntakhabu-t-Tawārikh* by Abdul Qādir, the Badaoni. It was arranged that it should be prepared uniformly with Mr. Lowe's translation of the second volume then in the course of preparation. Maulvi Abul Khair of the Madrasah College was requested to take the work in hand. For various reasons the editor could not commence work, and the work was kept in abeyance. Last year Dr. George Ranking accepted the editorship, and he has published his first fasciculus with copious annotations, Fasc. I.

## B. SANSKRIT SERIES.

1. The Aitarēya Brāhmaṇa is, next to the Ṛg Vēda, the most ancient Sanskrit work known, consequently it attracted the attention of Oriental Scholars very early. Haug published an edition of the work about 40 years ago. But he could not procure a commentary. Paṇḍit Satyavrata Sāmaçramī was therefore requested to undertake an edition with Sāyana's commentary. He has published five fasciculi during the year, Vol. I, Fascs. IV and V; Vol. II, Fasc. I to III.

2. Paṇḍits Yōgēçvara Smṛtiratna and Kāmākhyānātha Tarkavāgīça completed the second part of the third volume of the Caturvarga-Cintāmaṇi. This brings the Pariçēṣa Khaṇḍa or Miscellaneous Volume to an end. Vol. III, Part III, Fasc. X.

3. The Nyāyakusumañjali-prakaraṇa has been completed by Mahāmahōpādhyāya Candrakānta Tarkālaṅkāra with a commentary and a commentary on the commentary. The Editor in his preface makes an attempt to fix the date of the great teachers of the Nyāya philosophy. Vol. II, Fasc. III.

4. Professor Dr. Alfred Hillebrand of Breslau has published only one fasciculus, namely, Vol. II, Fasc. III of the Çrauta Sūtra of Çāṅkhāyana. This volume gives the commentary of Ānarttiya, son of Varadatta.

5. Since the transfer of the editorship of the Taittirīya Saṁhitā by Mahāmahōpādhyāya Mahēça Candra Nyāyaratna to Paṇḍit Satyavrata Sāmaçramī the work is progressing at the rate of one Fasciculus a year. The Fasciculus published last year is No. XXXVIII.

7. The Tattva-cintāmaṇi also has advanced by one fasciculus only, namely, Vol. V, Fasc. I. This is the first fasciculus of the last Khaṇḍa or part dealing with the evidencial value of speech.

8. The Madhyakhaṇḍa of the Vṛhad-dharma-purāṇa has been completed. In two more fasciculi the work will be concluded. Fasc. V. was published during the year.

9. The Svayambhū-purāṇa has also advanced by one fasciculus only, namely the fourth.

## C. TIBETAN SERIES.

1. The Sanskrit and Tibetan edition of the Kalpalatā advanced by two fasciculi, namely Vol. I, Fasc. V, and Vol. II Fasc. IV, under the joint editorship of Rāy Çarat Candra Dās, C.I.E., Bahādur, and Paṇḍit Harimohan Vidyābhūṣaṇa.

2. Babu Pratāpa Candra Ghoṣa has published one part of the Sher Phyin, namely Vol. III, Fasc. I. As he omits all the passages which are often repeated, there is a prospect of the work coming

to a speedy close. The publication of the *Çatasāhasrikā Prajñāpāramitā*, of which this is a Tibetan translation, otherwise would have been as great an undertaking as the publication of the *Mahābhārata*.

*List of all Societies, Institutions, &c., to which the Publications of the Asiatic Society have been sent during the year, or from which publications have been received.*

\* Societies, &c., which have received the Asiatic Society's publications, and have sent their publications in return.

† Societies, &c., which have received the Asiatic Society's publications, but have sent none in return.

§ Societies, &c., whose publications have been received, but to which nothing has been sent in return.

- \* Allahabad:—Editor, *Pioneer*.
- † Amsterdam:—Royal Zoological Society.
- † ———:—Koninklijke Akademie van Wetenschappen.
- \* Angers:—Société d' Etudes Scientifiques d' Angers.
- \* Baltimore:—Johns Hopkins University.
- \* Batavia:—Society of Arts and Sciences.
- \* ———:—Kon. Natuurkundige Vereeniging in Nederlandsch-Indië.
- § Bellary:—Editor, *Astrological Magazine*.
- \* Berlin:—Gesellschaft Naturforschender Freunde zu Berlin.
- \* ———:—Royal Academy of Sciences.
- † Berne:—Société Suisse d' Entomologie.
- § Birmingham:—Birmingham Philosophical Society.
- \* Bombay:—Bombay Anthropological Society.
- \* ———:—Bombay Branch, Royal Asiatic Society.
- \* ———:—Editor, *Indian Antiquary*.
- \* ———:—Editor, *Times of India*.
- \* ———:—Natural History Society.
- \* Bordeaux:—L' Académie Nationale des Sciences, Belles-Lettres et Arts.
- \* ———:—Société Linnéenne.
- \* Boston:—Natural History Society.
- \* Brisbane:—Royal Society of Queensland.
- † Brookville:—Society of Natural History.
- † Brunswick:—Verein für Naturwissenschaft.
- \* Brussels:—L' Académie Royale des Sciences.
- † ———:—Musée Royal d' Histoire Naturelle de Belgique.
- † ———:—Société Entomologique de Belgique.
- § ———:—La Société Royale des Sciences de Liège.

- † Budapest :—Hungarian Central Bureau for Ornithological Observations.
- \* ——— :—Royal Hungarian Academy of Sciences.
- † Buenos Ayres :—National Museum.
- \* ——— :—Academia Nacional de Ciencias de la Republica Argentina.
- \* Caen :—Société de Linnéenne de Normandie.
- \* Calcutta :—Geological Survey of India.
- \* ——— :—Editor, *Englishman*.
- \* ——— :—Editor, *Indian Daily News*.
- § ——— :—Editor, *Indian Engineering*.
- \* ——— :—Editor, *Indian Mirror*.
- § ——— :—Editor, *Medical Reporter*.
- § ——— :—Indian Meteorological Department.
- \* ——— :—Indian Museum.
- § ——— :—Mahabodhi Society.
- † ——— :—Mahomedan Literary Society.
- § ——— :—Microscopical Society of Calcutta.
- § ——— :—Photographic Society of India.
- \* ——— :—Survey of India.
- \* ——— :—Tuttobodhini Shova.
- \* ——— :—University Library.
- † Cambridge :—University Library.
- † Cassel :—Der Verein für Naturkunde.
- † Cherbourg :—Société Nationale des Sciences Naturelles.
- \* Chicago, Ill. :—Editor, *American Antiquarian and Oriental Journal*.
- § ——— :—Editor, *Open Court*.
- \* Christiana :—University Library.
- \* Colombo :—Ceylon Branch, Royal Asiatic Society.
- \* Copenhagen :—La Société Royale des Antiquaires du Nord.
- † Cuttack :—Cuttack Library.
- \* Danzig :—Naturforschende Gesellschaft.
- \* Dehra Dun :—Great Trigonometrical Survey.
- § Dorpat :—Die Naturforscher-Gesellschaft bei der Universität Dorpat.
- \* Dresden :—Entomologischer Verein "Iris."
- \* ——— :—Königlich Zoologisches und Anthropologisch-Ethnographisches Museum zu Dresden.
- † Dublin :—Royal Dublin Society.
- \* ——— :—Royal Irish Academy.
- † Edinburgh :—Royal Society.
- † ——— :—Scottish Geographical Society.
- † Florence :—Società Italiana di Anthropologia, Etnologia e Piscologia Comparata.

- \* Florence :— Societá Africana d'Italia.
- \* Frankfurt :— Senckenbergische Naturforschende Gesellschaft.
- \* ——— :— Naturwissenschaftlicher Verein des Reg.-Bez. Frankfurt.
- † Geneva :— Societá de Physique et d' Histoire Naturelle.
- † Genoa :— Museo Civico di Storia Naturale.
- \* Giessen :— Oberhessische Gesellschaft für Natur- und Heilkunde.
- † Graz :— Naturwissenschaftlicher Verein für Styria.
- \* The Hague :— Köninklijk Instituut voor de Taal-Land- en Volkenkunde van Nederlandsch-Indiá.
- \* ——— :— Netherlands Entomological Society.
- § Halifax :— Nova Scotian Institute of Sciences.
- † Halle :— Deutsche Morgenländische Gesellschaft.
- † ——— :— Kaiserliche Leopoldinisch-Carolinische Akademie.
- \* Hamburgh :— Naturhistorisches Museum zu Hamburg.
- \* ——— :— Naturwissenschaftlicher Verein.
- \* Hamilton (Canada) :— Hamilton Association.
- \* Havre :— Societá de Géographie Commerciale du Havre.
- \* Helsingfors :— Societas pro Flora et Fauna Fennica.
- † ——— :— Societá Finno Ougreinne.
- \* ——— :— Societá des Sciences de Finlande.
- § Kiel :— Naturwissenschaftlicher Verein für Schleswig-Holstein.
- † Kiew :— Societá des Naturalistes.
- † Königsberg :— Die Physikalisch-Oekonomische Gesellschaft.
- \* Lahore :— Editor, *Civil and Military Gazette*.
- † ——— :— Agricultural Society.
- § Leipzig :— Deutsche Morgenländische Gesellschaft.
- § ——— :— Die K. Sächsische Gesellschaft der Wissenschaften.
- † Leyden :— Royal Herbarium.
- \* Liége :— Societá Géologique de Belgique.
- \* ——— :— Societá des Sciences.
- † Liverpool :— Literary and Philosophical Society.
- \* London :— Anthropological Institute.
- \* ——— :— Editor, *Academy*.
- \* ——— :— Editor, *Athenæum*.
- \* ——— :— British Museum.
- \* ——— :— Geological Society.
- \* ——— :— Institution of Civil Engineers.
- \* ——— :— Institution of Electrical Engineers.
- \* ——— :— Institution of Mechanical Engineers.
- \* ——— :— Editor, *Nature*.
- † ——— :— Linnean Society.
- \* ——— :— Royal Asiatic Society of Great Britain and Ireland.

- \* London :— Royal Astronomical Society.
- \* ——— :— Royal Geographical Society.
- \* ——— :— Royal Institution of Great Britain.
- \* ——— :— Royal Microscopical Society.
- \* ——— :— Royal Society.
- \* ——— :— Statistical Society.
- \* ——— :— Zoological Society.
- \* Lyons :— La Société d' Agriculture, d' Histoire Naturelle et des Arts  
Utiles.
- § ——— :— La Société d' Agriculture Sciences et Industrie de Lyon.
- † ——— :— Muséum d' Histoire Naturelle.
- † ——— :— La Société d' Anthropologie.
- \* Madison, Wiss :— Wisconsin Academy of Sciences, Arts and Letters.
- † Madras :— Literary Society.
- \* ——— :— Government Central Museum.
- § ——— :— Editor, *Indian Journal of Education*.
- § Melbourne :— Royal Society of Victoria.
- § Meriden :— Meriden Scientific Association.
- \* Manchester :— Literary and Philosophical Society.
- † Mexico :— Sociedad Científica " Antonio Alzate."
- \* Moscow :— Société Imperiale des Naturalistes.
- \* Munich :— K. Bayerische Akademie der Wissenschaften.
- \* Nantes :— Société des Sciences Naturelles de L' ouest de la France.
- † Naples :— Società Africana d' Italia.
- \* New Haven :— Connecticut Academy of Arts and Sciences.
- § ——— :— Yale University.
- † Newport (R. I.) :— Natural History Society.
- \* New York :— American Museum of Natural History.
- § ——— :— Editor, *Nation*.
- \* Ottawa :— Geological and Natural History Survey of the Dominion of  
Canada.
- † Oxford :— Bodleian Library.
- † ——— :— Indian Institute.
- \* Paris :— Société de Géographie.
- \* ——— :— Société d' Anthropologie.
- \* ——— :— Société Asiatique.
- § ——— :— Société Philomathique.
- \* ——— :— Musée Guimet.
- † ——— :— National Library.
- \* ——— :— Société Zoologique.
- † ——— :— Société Académique Indo-Chinoise.
- \* ——— :— Museum d' Histoire Naturelle.

- \* Pennsylvania :— University of Pennsylvania.
- \* Philadelphia :— Academy of Natural Sciences.
- § ——— :— American Philosophical Society.
- † ——— :— Editor, *Journal of Comparative Medicine and Surgery*.
- \* Pisa :— Società Toscana di Scienze Naturali.
- § Prague :— K. K. Sternwarte.
- § Rio de Janeiro :— Museu National do Rio de Janeiro.
- § Rome :— Editor, *Zoologicae Res*.
- § ——— :— Società degli Spettroscopisti Italiani.
- § Roorkee :— Editor, *Indian Forester*.
- § St. Louis :— Academy of Sciences.
- \* St. Petersburg :— Comité Géologique.
- † ——— :— Imperial Library.
- \* ——— :— Russian Geographical Society.
- \* ——— :— Académie Impériale des Sciences.
- \* ——— :— Jardin Impériale de Botanique.
- § ——— :— Société Impériale de Mineralogique.
- § Salem :— Essex Institute.
- \* San Francisco :— Californian Academy of Arts and Sciences.
- § Santiago :— Deutscher Wissenschaftlicher Verein.
- § Schaffhausen :— Swiss Entomological Society.
- † Shanghai :— China Branch, Royal Asiatic Society.
- † Simla :— United Service Institution of India.
- † Stettin :— Entomological Society.
- \* Stockholm :— Entomologische Tidskrift.
- \* ——— :— Royal Swedish Academy of Sciences.
- \* Stuttgart :— Der Verein für vaterländische Naturkunde in Württemberg.
- † Sydney :— Royal Society of New South Wales.
- † ——— :— Linnean Society of New South Wales.
- § Taiping :— Government of Perak.
- † Toronto :— Canadian Institute.
- \* Tokyo :— Imperial University of Japan.
- † Trieste :— Società Adriatica di Scienze Naturale.
- \* ——— :— Museo Civico di Storia Naturale.
- \* Tring :— Zoological Museum.
- \* Turin :— Reale Accademia delle Scienze.
- † Ulwar :— Ulwar Library.
- \* Vienna :— Anthropologische Gesellschaft.
- \* ——— :— K. K. Akademie der Wissenschaften.
- \* ——— :— K. K. Geologische Reichsanstalt.
- \* ——— :— K. K. Naturhistorisches Hofmuseum.



- \* Vienna :—Zoologisch-botanische Gesellschaft.
- † ——— :—Ornithologischer Verein.
- § Washington :—American Historical Association.
- † ——— :—Commissioners of the Department of Agriculture.
- \* ——— :—Smithsonian Institution.
- \* ——— :—United States Geological Survey.
- § ——— :—United States National Museum.
- \* Wellington :—New Zealand Institute.
- \* ——— :—Polynesian Society.
- \* Yokohama :—Asiatic Society.
- \* ——— :—Deutsche Gesellschaft für Natur-und Völkerkunde Ostasiens.
- † Zagreb :—Archæological Society.
- \* Zurich :—Naturforschende Gesellschaft.

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ABSTRACT OF PROCEEDINGS OF COUNCIL DURING 1895.

*February 1st, Ordinary Meeting.*

An order was made thanking Dr. G. A. Grierson for his report as the Delegate of the Asiatic Society of Bengal at the 10th International Congress of Orientalists held at Geneva in the year 1894.

On the recommendation of Bābū Gaurdās Baiçāk and Bābū Çarat Candra Dās, two Tibetan Manuscripts were returned to the donor, Mahanta Omrao Giri Gossein.

At the request of Monsieur de la Vallée Poussin, a copy of the 9th Chapter of the Commentary of the Sanskrit Manuscript " Bodhi-caryāvatāra " was ordered to be sent from the Society's Library.

The General Secretary was authorized to vote on behalf of the Society for Ward No. 16.

On the recommendation of the Council, a new edition of Burton's Arabian Nights edited by Leonard C. Smithers was ordered to be purchased for the Society's Library.

The Budget of the expenses of the Bibliotheca Indica drawn up by the Philological Committee for the year 1895 was approved.

Messrs. Meugens, King and Simson were appointed to audit the Accounts for 1894.

Dr. Grierson having returned from leave and relieved Dr. A. F. R. Hoernle of the Philological Secretaryship of the Society, the change was recorded and ordered to be reported at the next General Meeting.

*February 28th, Ordinary Meeting.*

On the recommendation of the Natural History Secretary a copy of Geyer's Supplement to J. Hübner's *Sammlung Exotischer Schmetterlinge* was subscribed for.

At the request of the Manager, Moslem Chronicle and the Mahomedan Observer, it was decided that the Arabic and Persian series of the *Bibliotheca Indica* should be advertised in that paper once a month for 6 months at Rs. 6 per month.

Permission was given to Mr. E. A. Gait to reprint and sell his article on the "Koch Kings of Kāmṛūp" from the *Society's Journal* for 1893.

On the recommendation of the Philological Secretary, several books were ordered to be purchased for the Society's Library.

On the recommendation of the Natural History Secretary, it was agreed to purchase a copy of Oliver's translation of *Botany* by Kerner for the Society's Library.

*March 28th, Ordinary Meeting.*

On the recommendation of the Natural History Secretary, it was agreed to purchase a copy of Vol. II. of Letheerry's and Severin's *Catalogue Général des Hémiptères* for the Society's Library.

At the request of the Secretary of the Nāgarī Pracāriṇī Sabhā, Benares, *Journal*, Part I. and *Proceedings*, were offered to the Sabhā in exchange for its publications.

A copy of Lassen's *Indische Altertumskunde*, in four volumes and supplements, vols. I. and II, 2nd edition, was purchased for the Society's Library.

A letter was recorded from the Government of India sanctioning the continuation of the Annual Grant of Rs. 3,200 in aid of the operations in search of Sanskrit Manuscripts in Bengal up to the end of the financial year 1899-1900.

On an application from Bābū Manmatha Nātha Datta, a copy of his translation of the "Rāmāyaṇa" was purchased, and the publications of the "Wealth of India" series, were subscribed for.

Paṇḍit Madhu Sūdan Smṛtiratna was allowed to edit the "Kālavivēka" and the "Smṛti Candrikā" for the *Bibliotheca Indica* from the manuscripts in his possession.

On the recommendation of the General Secretary, several books were purchased for the Society's Library.

On the recommendation of the Council, it was ordered that General Strachey, Lord Rayleigh, Mr. C. H. Tawney and Professor Dr. G. Bühler, should be proposed at the next General Meeting for Honorary Membership.

*April 25th, Ordinary Meeting.*

On the recommendation of the Philological Secretary, a copy of Guidi's Tables Alphabétiques du Kitāb-al-agāni, 1st Fasc., was ordered to be purchased for the Society's Library.

At the suggestion of Dr. Grierson, Mr. Gait's notes on the subject of Historical Research in Assam were ordered to be published in the *Proceedings*.

Mr. Frank Finn was elected a member of the Council and Anthropological Secretary in the place of the Hon. Mr. H. H. Risley and Dr. A. W. Alcock to officiate as General Secretary in the place of Mr. C. R. Wilson.

*May 30th, Ordinary Meeting.*

The purchase of the 2nd part of the Persian manuscript of "Irshādu-z-zarā'at," price Rs. 15 was approved.

Mr. E. Teza was supplied with a copy of the Society's *Journal*, Part I, No. 2 of 1888, containing Bābū Çarat Candra Dās' article on Tibetan characters.

The purchase of a copy of the Persian manuscript of "Jāmiu-l-Qawāmi," was sanctioned.

The publication of the index to the Riyāzu-s-Salāṭīn was sanctioned.

Mr. Finn was ordered to officiate as Natural History Secretary and Dr. George Ranking, as General Secretary.

On the recommendation of the Philological Secretary, an additional grant of Rs. 300, making a total of Rs. 1,500, for the publication of the "Sher Phyin" was sanctioned.

A copy of the "Katalog der Armenischen Manuscripte der Klosterbibliothek der Mechitharisten-Congregation in Wien" was ordered to be purchased for the Society's Library.

*June 27th, Ordinary Meeting.*

Permission was granted to Professor F. Schwally of Strassburg to retain the manuscript of "Kitabu-l-Mahasui-wal-Masani Mahazirat" till the coming autumn.

On the recommendation of the Philological Secretary, the purchase of a copy of Mahēndranāth Chatterjee's English translation of the Çrimad-bhāgavata, Book I, was sanctioned.

The offer of Mr. A. F. Gouméche to prepare the index to Major Raverty's translation of the Tabaqāt-i-Nāṣiri, at Re. 1 per printed page, was accepted.

The purchase of the manuscripts of "Tafsir-i-Gharib" "Sharḥu-s-Sirājiyyah" and "Zakhira-i-Iskandarāni," price Rs. 40, was approved.

At the request of Mr. L. de Nicéville, a copy of Wallace's "Darwinism" was ordered to be purchased for the Society's Library.

The purchase of a copy of Elia's English translation of the "Tārīkh-i-Rashīdi," price 30 shillings was approved.

Mr. Wilson having returned and resumed charge of General Secretaryship from Dr. Ranking, the change was ordered to be reported at the next Monthly General Meeting.

On the recommendation of the Philological Secretary, the purchase of a copy of Waddell's "Tibetan Buddhism," was sanctioned.

*August 1st, Ordinary Meeting.*

Permission was granted to Mr. H. Beveridge to borrow the manuscript of "Jawāmi-i-Aḥkām-u-n-Nujūm" and a lithograph book entitled "Ḥadāiq-u-n-Nujūm" from the Society's Oriental Library.

The Librarian was ordered to subscribe for two copies of the *Journal and Text* of the Buddhist Text Society of India.

An order was given to purchase two copies of a new edition of the Atharvavēda Samhitā with the commentary of Sāyanācārya edited by the late Rai Bāhādur Ḥaṅkar Pāṇḍurang Paṇḍit, vols. I-IV.

In reply to a letter from the Officiating Secretary to the Government of India in the Home Department covering a proposal by Dr. Grierson of a scheme for preliminary Language Survey of India and asking if the Asiatic Society would give Government their advice as to how the proposal could be carried into effect so far as Northern and Central India were concerned and also whether the Society would be willing to take charge of the necessary operations provided that it were assured of assistance from Government Officials and an annual grant, the Government of India was informed that in the opinion of the Society, the proposed Survey would be a work of the utmost utility, that it was essential that the work should be entrusted to experts and that one or more selected officers should be placed on special duty for that purpose by the Government of India, that in the opinion of the Society, Dr. Grierson was the fittest person to be placed in charge of the operations provided that all District and Political Officers were requested to give all necessary information and assistance, and that if the scheme was carried out on these lines, the Society would be very glad, in order to secure continuity in the event of change of officers, to undertake the general control and supervision of the work, and with this object, the Society would place their library at the disposal of the selected officer.

*August 29th, Ordinary Meeting.*

Mr. J. H. Elliott was confirmed in the appointment of Assistant Secretary to the Society from the first of January 1895.

Bābū Nani Lāl Māna, the copyist, was allowed to draw the full pay of his post.

*September 19th, Ordinary Meeting.*

Permission was granted to Dr. L. A. Waddell to borrow Mdo, Vol. II, Fol. 426, a Tibetan manuscript from the Society's Library.

It was agreed that the Philological Secretary should ask Mahā-mahōpadhyāya Mahēṣa Candra Nyāyaratna to get a copy made of the "Prāyascitta Khaṇḍa of Hemādri" from a good manuscript in Benares for Rs. 60, the copying being supervised by the Mahāmahōpadhyāya.

*October 31st, Ordinary Meeting.*

Paṇḍit Harimohan Vidyābhūṣaṇa, the Paṇḍit of the Society, was granted leave for six months, without pay, from 1st November, 1895.

A letter having been received from the Under-Secretary to the Government of Bengal in the General Department covering copy of a communication addressed to the Government of India in the Revenue and Agricultural Department, with enclosures, reporting on the measures taken by the Lieutenant-Governor to procure for the Indian Museum, facsimili reproductions of the Aṣōka Inscriptions in India, it was ordered that the Government of Bengal should be thanked for its action and that selections from the report should be published in the *Proceedings*.

*November 28th, Ordinary Meeting.*

A copy of Clarke's translation of Sikandar-nāma-i Barā, price Rs. 19, was ordered to be purchased for the Society's Library.

Paṇḍit Annadāprasād Sarasvatī, the officiating Paṇḍit of the Society was allowed leave for one month, without pay, from 1st November 1895, and his services placed at the disposal of the Government of Bengal, P. W. D.

*December 19th, Ordinary Meeting.*

Messrs. Thacker, Spink and Co. were allowed to purchase certain numbers of the Society's *Journal* at a reduction of 25 %.

In reply to a letter from Dr. C. Bomford stating that the Surgeon General, I. M. S., has agreed to offer to the Society the Barclay

Memorial Medal, together with Rs. 500 odd, belonging to the fund and inquiring what were the Society's proposals and intentions in the matter, he was informed that the Society would be willing to accept the medal, that the conditions under which it was to be awarded would be referred to a Committee consisting of Col. Waterhouse, Dr. Cunningham and Dr. Alcock and the rules would be forwarded in due course for the information of the donors.

The Report having been read, the President invited the Meeting to put any questions or to offer any remarks which any member might think necessary in connection therewith.

No remarks having been offered the President moved the adoption of the Report. The motion was unanimously carried.

The President proposed that the hearty thanks of the Society be given to the Honorary Secretaries and Treasurer for the able manner in which they have carried on the work of the Asiatic Society for 1895.

The President then read the report of the Trustees of the "Elliott Prize for Scientific Research."

*Report of the Elliott Prize for Scientific Research for 1895.*

The Trustees have received Essays from the following competitors for the prize:—

1. On the transformation of hypochlorites into chlorates by Yati Bhūṣaṇa Bhāduri, M.A., Prēmācānd Rāicānd Scholar.

2. On the wastage of gold in the course of preparing jewelry in Bengal, especially in "colouring," with explanations of interesting indigenous chemical processes, and researches into the subject of recovering the gold that is lost, by Jñāna Çaraṇa Cakravartī, B.A.

The Trustees, after consulting experts as provided in the scheme, adjudge the prize for the year 1895, to Bābū Yati Bhūṣaṇa Bhāduri, M.A.

They also consider the Essay by Bābū Jñāna Çaraṇa Cakravartī, B.A. to be worthy of commendation.

A. CROFT. }  
ALEX. PEDLER. } Trustees.

*Calcutta, 18th January, 1896.*

The President then delivered an address, which has been printed separately from the *Proceedings*.

The President announced that the Scrutineers reported the result of the election of Officers and Members of Council to be as follows:—

*President.*

A. Pedler, Esq., F.R.S.

*Vice-Presidents.*

Sir A. W. Croft, M.A., K.C.I.E.

Col. J. Waterhouse, B.S.C.

Dr. A. F. R. Hoernle.

*Secretaries and Treasurer.*

Dr. G. A. Grierson, C.S., C.I.E.

Dr. A. W. Alcock, C.M.Z.S.

F. Finn, Esq., B.A.

C. R. Wilson, Esq., M.A.

Paṇḍit Haraprasād Çāstri, M.A.

C. Little, Esq., M.A.

*Other Members of Council.*

Bābu Pratāpa Candra Ghoṣa, B.A.

Dr. D. D. Cunningham, F.R.S., C.I.E.

C. L. Griesbach, Esq., C.I.E., F.G.S.

Dr. G. Ranking, M.D.

T. H. Holland, Esq., A.R.C.S., F.G.S.

Dr. G. Watt, C.I.E.

The Hon. Mr. Justice Amir Ali, C.I.E.

Dr. P. K. Rāy.

The Meeting was then resolved into the Ordinary General Meeting.

Alexander Pedler, F. R. S., President, in the chair.

The minutes of the last meeting were read and confirmed.

Thirty-seven presentations were announced, details of which are given in the Library List appended.

The following gentlemen duly proposed and seconded at the last meeting of the Society were balloted for and elected Ordinary Members:—

W. C. Macpherson, Esq, I. C. S.

Surgeon-Lieutenant Charles E. Williams, I. M. S.

The Council reported that in consequence of the deaths of:—Major-General Sir H. C. Rawlinson, Professor T. H. Huxly, Professor Hermann L. E. Helmholtz, Dr. Rudolph von Roth, and Monsieur Louis

Pasteur, there were now four vacancies in the list of the Honorary Members. The Council therefore recommended the four following gentlemen for election as Honorary Members at the next meeting :—

SIR JOSEPH LISTER, Bart., P. R. S., Surgeon Extraordinary to the Queen, Professor of Clinical Surgery in King's College, London, is the author of numerous papers on Surgical Pathology and Histology, but is celebrated, before all, as the great originator and exponent of the Antiseptic System of Surgery, a system that has not only revolutionized surgery and reformed Hospital Hygiene, but also has had a beneficial influence on every other branch of Medicine.

In the history of the antiseptic reformation, Sir Joseph Lister was the foremost to recognize, first, that septic changes in wounds are of the nature of fermentations, and are due to the advent and multiplication within wounds of organic germs; and secondly, that these germs find their surest and most favourable abode in places where the wounded are improperly crowded together.

The "antiseptic treatment" initiated by Sir Joseph Lister was aimed more at the destruction of the germs in the neighbourhood of any given wound; but with the spread and acceptance of Listerian principles the treatment became more and more directed towards removing the conditions under which the germs were found to exist, until to-day the antiseptic treatment is not so much a matter of special surgical technique as a matter of scrupulous sanitary cleanliness. But the wide reforms in the care of the sick which this strict sanitary observance has brought about are the direct and obvious outcome of the original antiseptic teaching of Sir Joseph Lister.

Professor MICHAEL FOSTER, Secretary of the Royal Society, Professor of Physiology in the University of Cambridge, is the author of numerous papers on pure physiology as well as on histology, but is specially known by his Text Book of Physiology, and for his influential labours in the cause of scientific education at Cambridge University.

The Text Book of Physiology is, practically, original work—original in its treatment of the subject, and above all original in its wealth of philosophical suggestion. It is not too much to say of the earlier editions of that work that they have had a deep influence far beyond the limits of their special field of education, and that their introductory and few closing chapters, without departing from strictly physiological ground, exhibit physiology at its highest level as a branch of learning.

Professor F. KIELHORN PH.D., C.I.E., now Professor of Sanskrit in the University of Göttingen in Germany, formerly Professor of Oriental Languages in the Deccan College in British India. He is equally distinguished by his intimate knowledge of Sanskrit Grammar and of



Indian Epigraphy and Palaeography. In the former department he has published in English, an excellent Sanskrit Grammar for students which has been translated into German by Dr. Solf. His edition of the *Vyākaraṇa Mahābhāshya* of Patañjali is a standard work on Sanskrit Grammar. He has contributed numerous valuable papers on Indian Epigraphical subjects to our own *Journal*, as well as the *Indian Antiquary*, the *Epigraphia Indica* and other learned periodicals. The British Government has acknowledged his eminence as an Oriental scholar by the bestowal on him of the honour of a C.I.E.

PROFESSOR CHARLES ROCKWELL LANMAN, Professor of Sanskrit in the Harvard College, Cambridge, in the United States of America. He is—since the death of Professor W. D. Whitney of the Yale University—the most distinguished Sanskrit scholar in America. He is the author of a very excellent Sanskrit Reader with Vocabulary and Notes, and has published numerous valuable papers on a variety of points touching the grammar and religion of the Vedas as well as Indian subjects generally, which were contributed to the Journals of the American Oriental Society and other learned Societies, our own included. He is also one of the Secretaries of the first-named Society.

The following gentlemen are candidates for election at the next meeting:—

F. MacBlaine, Esq., I. C. S., Nowgong, proposed by Dr. G. A. Grierson, seconded by C. R. Wilson, Esq.

Maulvī Abdul Karim, B.A., Assistant Inspector of Schools for Muhammedan Education, Presidency Circle and Orissa Division, proposed by Maulvi Abdul Wali, seconded by Dr. A. F. R. Hoernle.

T. N. Das, Esq., B.A., (Oxon.) Bar-at-Law, Assistant Professor, Hooghly College, proposed by S. C. Laharry, Esq., seconded by Dr. G. A. Grierson.

Satiç Candra Banerjje, Esq., M.A., LL.B., proposed by S. C. Laharry, Esq., seconded by Dr. G. A. Grierson.

C. H. Bompas, Esq., proposed by Dr. G. A. Grierson, seconded by C. R. Wilson, Esq.

H. N. De, Esq., proposed by S. C. Laharry, Esq., seconded by Dr. Grierson.

The following gentleman has expressed a wish to withdraw from the Society:—

W. Crooke, Esq., C.S.

The President laid on the table the Budget of expenses on the *Bibliotheca Indica* for 1896 drawn up by the Philological Committee and approved by the Council.

PROCEEDINGS OF A MEETING OF THE PHILOLOGICAL  
COMMITTEE OF THE ASIATIC SOCIETY OF BENGAL.

Held on Friday, December 20th, 1895.

PRESENT :

Mahāmahōpādhyāya Mahēṣa Candra Nyāyaratna, C.I.E.

G. A. Grierson, Esq., PH.D., C.I.E., *Hon. Phil. Secy.*

Dr. A. Rudolf Hoernle.

Dr. George Ranking.

Dr. Āçutōṣa Mukherjee.

Paṇḍit Haraprasād Čāstrī, *Hon. Jt. Phil. Secy.*

1. We recommend that, for the present, no action be taken on the report of the Tenth International Congress of Orientalists on the subject of transliteration, until we see what action has been taken by the Royal Asiatic Society of Great Britain and Ireland. We further recommend that that Society be asked what it intends to do in the matter.

2. We recommend that the following Budget for the "*Bibliotheca Indica*" for the year 1896 be approved :—

BUDGET ESTIMATE FOR 1896.

RECEIPTS.			DISBURSEMENTS.		
	RS.	AS. P.		RS.	AS. P.
Balance in hand ..	10,000	0 0	Tattva-cintāmaṇi ...	900	0 0
Government grant for 1896	9,000	0 0	Svayambhū-purāṇa ...	700	0 0
			Tul'si-sat'sai ...	300	0 0
<b>Total ...</b>	<b>19,000</b>	<b>0 0</b>	Bṛhad-dharma-purāṇa ...	600	0 0
			Paṅ-Sam-Thi-Sin ...	500	0 0
			Markaṇḍēya-purāṇa ...	600	0 0
			Nyāya-vārtika ...	900	0 0
			Kalpalatā ...	1,050	0 0
			Caturvarga-cintāmaṇi ...	300	0 0
			Taittiriya-sūhita ...	600	0 0
			Çrauta-sūtra of Čāṅkhāyana	350	0 0
			Ma'āṣira-l-umara ...	400	0 0
			Aitarēya-brāhmaṇa ...	1,800	0 0
			Translation of Muntakhabu-t-		
			tāwāriḥ ...	3,000	0 0
			Sher Phyin ...	600	0 0
			Translation of Akbarnāma ...	600	0 0
			Kālavivēka ...	600	0 0
			Nātadhamma-kathā-sutta ...	300	0 0
			Āpastamba-çrauta-sūtra ...	700	0 0
			Padumāvati ...	900	0 0
			Anubhāṣya ...	300	0 0
			Parāçara-smṛti ...	300	0 0
			(the last fasciculus was left incomplete).		
				<b>16,300</b>	<b>0 0</b>

	Rs.	As.	P.		Rs.	As.	P.
Brought forward	19,000	0	0	Brought forward	16,300	0	0
				NEW WORKS RECOMMENDED.			
				Translation of Riyāzu-s-salātin	1,000	0	0
				Aparārka	300	0	0
				Bālabhāṭṭa	300	0	0
					1,600	0	0
<i>Note—</i>				Dr. Hoernle having agreed to continue the translation of the Suçrta, kept in abeyance, we recommend that one fasciculus of it be budgetted for this year	600	0	0
No account has been taken of the sale-proceeds of books, as they cover the establishment, postage and other charges.					18,500	0	0
				We recommend that certain fasciculi, portions of long works, now out of print, be reprinted	500	0	0
					19,000	0	0

3. Caturvarga-cintāmaṇi should not be continued, unless suitable MSS. are available.

4. We recommend that the Smṛti-candrikā be removed from the list, as a good edition has been published at Madras in the Thāmal character. The publication of the Ātharvaṇa-Upaniṣads has been announced in Bombay, so that work, too, should be removed from the list.

5. The following work has been stopped for various reasons:—

Lalita-vistara (English Translation).

6. The following list of works sanctioned and approved by the Council, but not taken in hand, has been drawn up in order of urgency:—

- |                                    |                                                    |
|------------------------------------|----------------------------------------------------|
| 1. Hirāṇya-kēçi-sūtra (Çrauta).    | 9. Karaṇa-grantha.                                 |
| 2. Baudhāyana-sūtra (Çrauta).      | 10. Bhaṭṭōtpala's Commentary on the Bṛhat-saṁhitā. |
| 3. Vipāka-sūtra (Jaina).           | 11. Yājñavalkya-gītā (English Translation).        |
| 4. Sad-dharma-puṇḍarika (Bauddha). | 12. English Translation of Ca-raka.                |
| 5. Tāwārīkh-i-Yamīni.              | 13. Translation of Sāṁkhyāprava-cana bhāṣya.       |
| 6. Tāwārīkh-i-Wassāf.              |                                                    |
| 7. Tāju-l-Ma'āṣir.                 |                                                    |
| 8. Naqa'idu-l-farazdaq wa Jarīr.   |                                                    |

The following papers were read :—

1. *Notes on the ancient topography of the Pir Pantgāl Route.*—By DE. M. A. STEIN.

2. *Two unrecorded sculptures in the Ananta Cave, Khandagiri, Orissa.*—By ALEXANDER E. CADDY. Communicated by Dr. A. F. R. Hoernle. (With four Plates).

These papers will be published in the *Journal*, Part I.

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### LIBRARY.

The following additions have been made to the Library since the meeting held in January last :—

#### TRANSACTIONS, PROCEEDINGS AND JOURNALS,

*presented by the respective Societies and Editors.*

Amsterdam. De Koninklijke Akademie van Wetenschappen,—Jaarboek, 1894.

———. Verslagen en Mededeelingen, Afd. Letterk,—3<sup>de</sup> Reeks, Deel XI.

Batavia. Bataviaasch Genootschap van Kunsten en Wetenschappen,—Tijdschrift voor Indische Taal,—Land- en Volkenkunde, Deel XXXIX, Aflevering 1.

Berlin. Deutsche Entomologische Zeitschrift,—Berliner Entomologische Zeitschrift, Band XL, Heft 3 und 4.

Bombay. The Indian Antiquary,—Vol. XXIV, Parts 305 and 306.

Brussels. L'Académie Royale des Sciences, des Lettres et des Beaux-Arts de Belgique,—Annuaire, 1894-95.

———. Bulletins,—3<sup>me</sup> série, Tome XXVI-XXIX.

———. Mémoires,—Tome LI, et LII.

———. Mémoires Couronnés,—Tome XLVII, L-LII.

———. Mémoires Couronnés et Mémoires des Savants Etrangers,—Tome LIII.

Budapest. La Société Hongroise de Géographie,—Bulletin, Tome XXIII, Nos. 1-5.

Calcutta. Indian Engineering,—Vol. XIX, Nos. 2-6.

———. The Indian Lancet,—Vols. VI, Nos. 11; VII, 2 and 3.

———. Indian Meteorological Memoirs,—Vol. VIII, Part 1.

———. Mahabodhi Society,—Journal, Vol. IV, No. 10.

———. Photographic Society of India,—Journal, Vol. IX, Nos. 1 and 2.

- Chicago, Ill. The American Antiquarian and Oriental Journal, — Vol. XVII, No. 6.
- Copenhagen. La Société Royale des Antiquaires du Nord, — Mémoires, Nouvelle Série, 1894,
- Dorpat. Die Naturforscher-Gesellschaft bei der Universität Jurjew (Dorpat), — Sitzungsberichte, Band XI, Heft 3.
- Dresden. Die Gesellschaft Iris zu Dresden, — Deutsche Entomologische Zeitschrift, Band VIII, Heft 1 und 2.
- Florence. La Società Italiana di Antropologia, Etnologia e Psicologia Comparata, — Archivio per L' Antropologia e la Etnologia, Tome XXV, Nos. 1 et 2.
- THE HAGUE. Koninklijk Instituut voor de Taal, — Land- en Volkenkunde van Nederlandsch-Indië, — Bijdragen tot de Taal, — Land- en Volkenkunde van Nederlandsch-Indië, 6<sup>e</sup> Volgr, Deel II, Aflevering 1.
- . De Nederlandsche Entomologische Vereeniging, — Tijdschrift voor Entomologie, Band XXXVII, Nos. 1–4.
- Iasi. Organul Societății Științifice și Literare din Iasi, — Arhiva, Anul VI, No. 11, și 12.
- Leipzig. Die Königl. Sächsische Gesellschaft der Wissenschaften, — Abhandlungen, Phil.-hist. Cl., Band XVII, Nrn. 1; XXII, 2–5.
- London. The Academy, — Nos. 1234–38.
- . The Athenæum, — Nos. 3557–61.
- . Institution of Civil Engineers, — Charter, Supplemental Charter, By-Laws and List of Members, 6th September, 1895.
- . ———. Minutes of Proceedings, Vols. CXXI and CXXII; and Subject-Index, Vols. LIX–CXVIII.
- . Institution of Mechanical Engineers, — Proceedings, Nos. 1 and 2, 1895.
- . Linnean Society, — Journal, Botany, Vol. XXX, Nos. 209 and 210.
- . ———. Zoology, — Vol. XXV, Nos. 158–60.
- . ———. List of Members, 1894–95.
- . ———. Proceedings, — Session, 1893–94.
- . ———. Transactions, Botany, — 2nd series, Vol. V, Parts 1 and 2.
- . ———. Zoology, — 2nd series, Vol. VI, Part 3.
- . The Messenger of Mathematics, — New series, Vol. XXV, No. 1.
- . Nature, — Vol. LIII, Nos. 1365–69.
- . Royal Asiatic Society of Great Britain and Ireland, — Journal, January, 1896.

- London. Royal Astronomical Society,—Monthly Notices, Vol. LVI, No. 2.
- . Royal Geographical Society,—Geographical Journal, Vol. VII, No. 1.
- . Royal Microscopical Society,—Journal, Part 4, 1895.
- . Royal Society,—Proceedings, Vol. LVIII, Nos. 347-51.
- . Zoological Society of London,—Proceedings, Part 3, 1895.
- . ———. Transactions,—Vol. XIII, Part 2.
- Madras. Indian Journal of Education,—January, 1896.
- Mexico. La Sociedad Científica “Antonio Alzate,”—Memorias y Revista, Tome VIII, Nos. 1 et 2.
- Mussoorie. The Indian Forester,—Vol. XXII, No. 1.
- New Haven. Yale University,—Catalogue, 1895-96.
- Ottawa. Royal Society of Canada,—Proceedings and Transactions, Vol. XII.
- Paris. Journal Asiatique,—Tome V. Nos. 3 ; VI, 1.
- . Muséum d'Histoire Naturelle,—Bulletin, No. 7, 1895.
- . La Société de Géographie,—Comptes Rendus des Séances, Nos. 14-16, 1895
- . La Société Nationale des Sciences Naturelles et Mathématiques de Cherbourg,—Mémoires, Tome XXIX.
- . La Société Philomathique de Paris,—Bulletin, Tome VII, No. 3.
- . ———. Comptes Rendus Sommaire des Séances, Nos. 4-6, 1895.
- Pisa. La Società Toscana di Scienze Naturali,—Atti, Memorie, Tome XIV.
- . ———. Atti (Processi Verbali), 5 Maggio,—7 Luglio 1895.
- Rome. La Società degli Spettroscopisti Italiani,—Memorie, Tome XXIV, Nos. 11 et 12.
- . La Società di Studi Geografici e Coloniali in Firenze,—Bollettino, Tome II No. 10.
- St. Petersburg. L'Académie Impériale des Sciences de St. Pétersbourg,—Bulletin, V<sup>e</sup> Série, Tome III, No. 1.
- Stockholm. Kongl. Svenska Vetenskaps-Akademiens,—Accessions-Katalog, IX, 1894.
- . ———. Handlingar, Band XXVI.
- . ———. Öfversigt, Band LI.
- . Société Entomologique à Stockholm,—Journal Entomologique, Tome XVI, Nos. 1-4.
- Taiping. Perak Government,—Gazette, Vol. IX, No. 1.
- Tokio. Die Kaiserlich-Japanische Universität,—Mittheilungen aus der Medicinischen Facultät, Band III Nr. 11.
- Tring. Novitates Zoologicae.—Vol. II, No. 4.

- Vienna. Die Anthropologische Gesellschaft in Wien,—Mittheilungen, Band XXV, Heft 4 und 5.
- . Die K. K. Zoologisch-botanische Gesellschaft in Wien,—Verhandlungen, Band XLV, Heft 10.
- Yokohama. Asiatic Society of Japan,—Transactions, Vol. XXIII, Supplement.
- Zürich. Die Naturforschende Gesellschaft in Zürich,—Neujahrsblatt, Nr. XCVIII.
- . ———. Vierteljahrsschrift,—Tome XL, Heft 3 und 4.

### BOOKS AND PAMPHLETS,

*presented by the Authors, Translators, &c.*

- HAECKEL, ERNST. Die cambrische Stammgruppe der Echinodermen. 8vo. Jena, 1895.
- LYMAN, BENJAMIN SMITH. Metallurgical and other features of Japanese swords. 8vo. Philadelphia, 1896.
- . The Yardley Fault; and the Chalfont Fault Rock, so called. 8vo. Philadelphia, 1895.
- PRINGLE, ARTHUR T. The Diary and Consultation Book of the President Governor and Council at Fort St. George, 1685, First Series, Vol. IV. 8vo. Madras, 1895.

### MISCELLANEOUS PRESENTATIONS.

- CHIJS, J. A. VAN DER. Dagh-Register gehonden int Easteel Batavia vant passerende daer ter plaetse als over geheel Nederlandts-India, Anno, 1665-1697.

BATAVIA, SOCIETY OF ARTS AND SCIENCES.

- Norges gamle Love indtil 1387. Band V, Heft 2. 4to. Christiania, 1895.

BIBLIOTHÈQUE DE L'UNIVERSITÉ ROYALE DE NORVÈGE Á CHRISTIANIA.

- Report of the sixty-fifth meeting of the British Association for the Advancement of Science, held at Ipswich in September, 1895. 8vo. London, 1895.

BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

- Catalogue of the Library of the Ceylon Branch of the Royal Asiatic Society. 8vo. Colombo, 1895.

CEYLON BRANCH OF THE ROYAL ASIATIC SOCIETY.

- Report on the Administration of the Central Provinces for the year 1894-95. Fcp. Nagpur, 1895.

CHIEF COMMISSIONER, CENTRAL PROVINCES.

- Annual Report of the Department of Agriculture, Brisbane, for the year 1894-95. 8vo. Brisbane, 1895.

DEPARTMENT OF AGRICULTURE, BRISBANE.

Magnetical and Meteorological Observations made at the Government Observatory, Bombay, 1894. Fcp. Bombay, 1895.

GOVERNMENT OBSERVATORY, BOMBAY.

Report on the Administration of Bengal, 1894-95. Fcp. Calcutta, 1895.

Report on the River-borne Traffic of the Lower Provinces of Bengal, and on the Inland Trade of Calcutta, and on the Trade of Chittagong Port for the year 1894-95. Fcp. Calcutta, 1895.

Resolution reviewing the reports on the working of the District Boards in Bengal during the year 1894-95. Fcp. Calcutta, 1895.

GOVERNMENT OF BENGAL.

North Indian Notes and Queries for December, 1895. 4to. Allahabad, 1895.

GOVERNMENT OF INDIA, HOME DEPARTMENT.

Report on the Administration of the Madras Presidency during the year 1894-95. Fcp. Madras, 1895.

GOVERNMENT OF MADRAS.

Gazetteer of the Rawalpindi District, revised edition, 1893-94. 8vo. Lahore, 1895.

GOVERNMENT OF THE PUNJAB.

Report of the eighteenth Annual Meeting of the Indian Association for the Cultivation of Science held on the 30th July, 1895. 8vo. Calcutta, 1895.

INDIAN ASSOCIATION FOR THE CULTIVATION OF SCIENCE.

Catalogue of the Library of the Institution of Civil Engineers, London, A-G, H-Pa, Pe-End. 8vo. London, 1895.

INSTITUTION OF CIVIL ENGINEERS, LONDON.

Die Handschriften-Verzeichnisse der Königlichen Bibliothek zu Berlin, Band XIX. 4to. Berlin, 1895.

KÖNIGLICHE BIBLIOTHEK ZU BERLIN.

BEMMELN, J. M. VAN. Over de Samenstelling, het Voorkomen, en de Vorming van Sideroze (Witte Klien) en van Vivianiet in de onderste darglaag der hoogveenen van zuidoost drenthe. 8vo. Amsterdam, 1895.

CAPELLE, DR. H. VAN. Diluvialstudien im Südwesten van Friesland. 8vo. Amsterdam, 1895.

DOJES, P. H. Over de theorie der straling in verband met de voorstelling van Fourier. 8vo. Amsterdam, 1895.

HAMBURGER, DR. H. J. Ueber die Regelung der osmotischen Spannkraft von Flüssigkeiten in Bauch- und Pericardialhöhle. 8vo. Amsterdam, 1895.

HUBRECHT, A. A. W. Die Phylogense des Amnions und die Bedeutung des Trophoblastes. 8vo. Amsterdam, 1895.



- KAPTEYN, W. Over de merkwaardige punten van den driehoek. 8vo. Amsterdam, 1895.
- KOLK, DR. J. L. C. SCHROEDER VAN DER. Bijdrage tot de Karteerling Onzer Zandgronden, (I). 8vo. Amsterdam, 1895.
- MULLER, J. J. A. De verplaatsing van eenige Triangulatie-Pilaren in de residentie Tapanoeli (Sumatra) tengevolge Van de Aardbeving van 17 Mei, 1892. 8vo. Amsterdam, 1895.
- MULLER, S. De Germaansche Volken bij Julius Honorius en Anderen. 8vo. Amsterdam, 1895.
- SCHOUTE, P. H. Regelmassige Schnitte und Projectionen des hundertzwanzigzelles und sechshundertzelles im Vierdimensionalen Raume. 8vo. Amsterdam, 1894.
- WENT, DR. F. A. F. C., UND GEERLIGS, H. C. PRINSEN. Beobachtungen über die Hefearten und Zuckerbildenden Pilze der Arackfabrikation. 8vo. Amsterdam, 1895.
- WISSELINGH, C. VAN. Over de Vittae der Umbelliferen. 8vo. Amsterdam, 1894.
- DER KONINKLIJKE AKADEMIE VAN WETENSCHAPPEN TE AMSTERDAM.  
Scientific Memoirs by Medical Officers of the Army of India, Part IX. 4to. Calcutta, 1895.
- SANITARY COMMISSIONER WITH THE GOVERNMENT OF INDIA.  
HAFFKINE, W. M. Anti-cholera Inoculation. 4to. Calcutta, 1895.
- MESSRS. THACKER, SPINK & CO.  
North American Fauna, No. 10. 8vo. Washington, 1895.
- U. S. DEPARTMENT OF AGRICULTURE, WASHINGTON.

### PERIODICALS PURCHASED.

- Allahabad. North Indian Notes and Queries,—Vol. V, No. 10.
- Calcutta. Indian Medical Gazette,—Vol. XXXI, No. 1.
- Geneva. Archives des Sciences Physiques et Naturelles,—Tome XXXIV, No. 12.
- Leipzig. Annalen der Physik und Chemie,—Band LVII, Heft 1.
- . ———. Beiblätter, Band XX, Stück 1.
- London. Numismatic Circular,—Vol. IV, No. 38.

### BOOKS PURCHASED.

- OLIVER, F. W. The Natural History of Plants, their forms, growth, reproduction, and distribution. From the German of Anton Kerner von Marilann. Vol. II. 4to. London, 1895.
- WALLACE, ALFRED RUSSEL. Darwinism; an exposition of the Theory of Natural Selection with some of its applications. 8vo. London. 1890.

PROCEEDINGS  
OF THE  
ASIATIC SOCIETY OF BENGAL,  
FOR MARCH, 1896.

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The Monthly General Meeting of the Asiatic Society of Bengal was held on Wednesday, the 4th March, 1896, at 9-15 P.M.

ALEXANDER PEDLER, Esq., F. R. S., President, in the chair.

The following members were present :—

Dr. A. W. Alcock, F. Finn, Esq., Dr. G. A. Grierson, J. Mann, Esq., J. D. Nimmo, Esq., Dr. P. C. Roy, Paṇḍit Satyavrata Sāmaçramī, R. E. S. Thomas, Esq., C. R. Wilson, Esq.

Visitor :—Hugh Grants, Esq.

The minutes of the last meeting were read and confirmed.

Twenty-two presentations were announced, details of which are given in the Library List appended.

The following gentlemen duly proposed and seconded at the last Meeting of the Society were balloted for and elected Ordinary Members :—

F. MacBlaine, Esq.  
Maulvi Abdul Karim.  
T. N. Dās, Esq.  
Bābu Satiç Candra Banerjee.  
C. H. Bompas, Esq.  
H. N. De, Esq.

The following gentlemen are candidates for election at the next Meeting :—

The Hon. Guruprasād Sen, Calcutta, proposed by P. N. Bose, Esq., seconded by R. C. Dutt, Esq.

Bābu Çyām Lāl Mallik, proposed by Bābu Gaurdās Baṣāk, seconded by C. R. Wilson, Esq.

The following gentlemen have expressed a wish to withdraw from the Society :—

J. J. D. LaTouche, Esq.  
M. Finucane, Esq.  
P. Nolan, Esq.  
Lt.-Col. E. H. Molesworth.

THE SECRETARY reported the death of the following gentlemen :—

W. Swinhoe, Esq.,  
Bābu Balāi Cānd Simha.

THE SECRETARY read the names of the following gentlemen who had been appointed to serve in the various Committees for the present year.

*Finance and Visiting Committee.*

Sir A. W. Croft.	Dr. A. F. R. Hoernle.
Bābu Pratāpa Candra Ghoṣa.	Col. J. Waterhouse.
C. L. Griesbach, Esq.	

*Library Committee.*

Bābu Gaurdās Baṣāk.	Dr. Aḥṭoṣa Mukherjee.
Dr. D. D. Cunningham.	L. de Nicéville, Esq.
Bābu Pratāpa Candra Ghoṣa.	Paḍḍit Nilmaṇi Mukherjee, Nyāyā-
His Grace Archbishop Dr. P.	laṅkāra.
Goethals.	Mahāmahapādhyāya Maheṣa Can-
Dr. A. F. R. Hoernle.	dra Nyāyaratna.
T. H. Holland, Esq.	Dr. G. Ranking,
The Rev. H. B. Hyde.	Dr. Mahendralāl Sarkār.
Prince Sir Jahan Quḍr Muḥammad	Major R. C. Temple.
Wahid Ali Khān Bāhādur.	Col. J. Waterhouse.
J. Mann, Esq.	Dr. G. Watt.

*Philological Committee.*

Maulvī Abdus Salam.	Dr. A. Führer.
Maulvī Ahmad.	Bābu Pratāpa Candra Ghoṣa.
Sir Sayid Ahmad.	Dr. A. F. R. Hoernle.
Bābu Gaurdās Baṣāk.	J. Mann, Esq.
Bābu Çarat Candra Dās.	Dr. Aḥṭoṣa Mukherjee.

Paṇḍit Nilmaṇi Mukherjee, Nyāyā- laṅkāra.	Rāya Rāj Kumār Sarvādhikāri, Bā- hādur.
Mahāmahapādhyāya Maheṣa Can- dra Nyāyaratna.	Dr. Mahendralāl Sarkār. Mahāmahapādhyāya Candra Kāuta
F. E. Pargiter, Esq.	Tarkālaṅkāra.
Captain D. C. Phillott.	Major R. C. Temple.
Dr. G. Ranking.	Dr. G. Thibaut.
Paṇḍit Satyavrata Sāmaçramī.	A. Venis, Esq.

*Coins Committee.*

J. A. Bourdillon, Esq.	C. J. Rodgers, Esq.
Dr. A. Führer.	V. A. Smith, Esq.
Dr. A. F. R. Hoernle.	E. Thurston, Esq.

*History and Archæological Committee.*

The Hon. Mr. Justice Amir Ali.	His Grace Archbishop Dr. P.
Bābu Gaurdās Baṣāk.	Goethals.
Dr. A. Führer.	The Rev. H. B. Hyde.
Bābu Pratāpa Candra Ghoṣa.	Paṇḍit Mohanlāl Viṣṇulāl Pāṇḍia.
	Major R. C. Temple.

*Natural History Committee.*

Dr. D. D. Cunningham.	S. E. Peal, Esq.
J. F. Duthie, Esq.	Dr. D. Prain,
T. H. Holland, Esq.	Dr. J. Scully.
C. S. Middlemiss, Esq.	R. E. S. Thomas, Esq.
L. de Nicéville, Esq.	E. Thurston, Esq.
Dr. Fritz Noetling.	Dr. G. Watt.
B. D. Oldham, Esq.	

*Physical Science Committee.*

J. C. Bose, Esq.	Dr. Fritz Noetling,
P. N. Bose, Esq.	R. D. Oldham, Esq.
Dr. D. D. Cunningham.	Dr. D. Prain.
J. Eliot, Esq.	Dr. P. C. Roy.
T. H. Holland, Esq.	Dr. Mahendralāl Sarkār.
Dr. G. King.	Dr. J. Scully.
The Rev. Father E. Lafont.	Dr. W. J. Simpson.
C. S. Middlemiss, Esq.	Col. J. Waterhouse.
Dr. Aṅtoṣa Mukherjee.	

*Anthropological Committee.*

M. L. Dames, Esq.  
 Bābu Çarat Candra Dās.  
 E. A. Gait, Esq.  
 R. Greeven, Esq.  
 J. Mann, Esq.  
 S. E. Peal, Esq.

The Hon. Mr. H. H. Risley.  
 Rāya Rāj Kumār Sarbādhikārī Bā-  
 hādur.  
 Major R. C. Temple,  
 E. Thurston, Esq.  
 Dr. G. Watt.

THE PRESIDENT announced that the Council had resolved to form a Committee consisting of the President, Dr. D. D. Cunningham, Dr. A. W. Alcock, Mr. T. H. Holland and Dr. Mahendralāl Sarkār, with power to add to their number, to invite subscriptions and take such steps as they considered necessary to further the purpose of the Huxley Memorial.

The following papers were read :—

1. *On Irregular Causal Verbs in the Indo-Aryan Vernaculars.*—By G. A. GRIERSON, Esq., C.I.E., PH.D.

(Abstract.)

In the formation of causal verbs, in the Vernaculars of Central and Western India, certain verbs insert *ḍ*, *r*, *l*, or *n* before or after the causal suffix. Examples are Gujarātī *bes-ā-ḍ*, 'cause to sit;' Sindhi, *sikhā-r* 'teach;' Hindi, *di-l-ā*, 'cause to give;' Kāçmiri, *pak-an-āv*, 'cause to go.' The origin of these inserted letters has hitherto been considered obscure.

The author points out that recent comparative philology shows that in Sanskrit many verbal roots took nominal suffixes before adding the personal terminations. Examples are *kri-ṇā-ti*, 'he buys,' *su-nōti*, 'he squeezes,' *mṛ-ṇa-ti*, 'he kills,' *kṛp-anya-ti*, 'he is a suppliant,' *lā-la-ya-ti* 'he causes to adhere.' Sometimes these suffixes give a causal force to the root, and sometimes, so far as meaning goes, they are merely pleonastic.

The author next shows that some modern Indo-Aryan roots have certainly taken similar pleonastic suffixes. As an example, he takes the Sanskrit *drava-ti* 'he runs,' and shows that in some languages, it takes *k*, in others *g*, in others *r*, in others *ḍ* or *ṛ*, and, in one, both *g* and *r*; so that we find the forms

- (1) *druk*, *ḍōk*, *daug*,
- (2) *dōr*, *ḍōṛ*, *daur*,
- (3) *dugur*, all of which mean 'run.'

He finally explains the consonants inserted in modern causals, by stating that they have a similar origin.

The paper will be published in full in the *Journal*, Part I.

2. *Contributions to the Theory of Warning Colours and Mimicry, No. II. Experiments with a Lizard (calotes versicolor).*—By FRANK FINN, ESQ., B.A., Deputy Superintendent, Indian Museum.

3. *A note on the nature of the substance formed during Indigo Fermentation from which Indigo-Blue is eventually formed and an Indigo-Brown.*—By SURGEON-LIEUTENANT-COLONEL GEORGE RANKING, B.A., M.D.

The papers will be published in the *Journal*, Part II.

4. *On the transformation of hypochlorites into chlorates.*—By BĀBU YATI BHŪṢAṅ BHĀDURI, M.A., PRĒMĀND RĀYĀND SCHOLAR. Communicated by the PRESIDENT.

(Abstract.)

In the preliminary portion the various methods of estimating chlorates and hypochlorites have been carefully examined. Direct estimation of both in a mixture containing the same have been found possible by distillation in moderately dilute solution with pure phosphoric acid and then the residue with fuming hydrochloric acid. Hypochlorites can not be estimated in acid solutions (with KI and HCl) in presence of chlorates.

The action of chlorine on sodic hydrate is ascertained by passing the washed gas through a solution of the hydrate. Owing to considerable change of volume consequent on absorption, the amount of sodium is determined afterwards. The total chlorine is determined by reduction with zinc copper couple and the hypochlorite by Penot's, or distillation method. From numerous experiments it is found that the amount of chlorate which is formed in solution up to 7 per cent. of concentration and containing free alkali is insignificant. Above 10 per cent. solution, however, the secondary reaction—transformation—becomes more distinct and when the concentration exceeds 20 per cent., time becomes an important factor. Presence of free alkali retards the change.

To study the transformation, the solution of known strength is kept in stoppered bottles or sealed tubes and then exposed to rays of different degrees of refrangibility or kept in absolute darkness. After the required time the contents are analysed (the volume of oxygen also determined). The results of the analyses prove that a solution of sodium hypochlorite slowly decomposes even when kept in absolute darkness. The rate of decomposition increases as the refrangibility of the rays increases. Yellow rays are far more active than the red. The change is one into chlorate and free oxygen. If there be little or no free alkali, chlorine is simultaneously liberated.

When the change takes place at about 100° C. strong sealed glass

tubes are used. Comparing the percentage decomposition of a number of solutions in which the *relative quantities* of free alkali, chloride, chlorate and hypochlorite are the same, the following peculiarities are observed. The decomposition diminishes with dilution up to a certain point when it is minimum. Further diminution in concentration instead of diminishing increases decomposition. This peculiar department is observed not only with similar solutions heated to different periods of time, but in all solutions which are examined, the ratio of hypochlorite to free alkali being approximately as 2 : 5, 2 : 2 and 2 : 1. When the percentage decompositions are represented by curves whose ordinates express percentage decompositions and abscissa concentrations, greatest depressions (minimum decompositions) lie very nearly in the same vertical line. The exact strength of the solution which decomposes least is not yet known with great accuracy, but it appears to lie between 1.5 to 1.7 per cent. of concentration. The influence of other constituents may be neglected as all the solutions containing widely different quantities of chlorate, hypochlorite and free alkali lead to the same conclusion. In all cases oxygen and chlorate are simultaneously produced. At the end of the first hour the amount of oxygen that is liberated varies from  $\frac{1}{4}$  to  $\frac{1}{2}$  of the oxygen fixed in the chlorate. As the duration of heating is prolonged the quantity of free oxygen is increased, but in no case is this quantity greater than the oxygen of the chlorate although the strength of the solution is seen to vary from 3 to 8.9 per cent. and duration of heating from one to six hours and a half. As the strength of the solution diminishes the liberation of free oxygen increases. For the same weight of chlorate formed, the quantity of oxygen diminishes with the rapidity with which the solutions are heated.

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### LIBRARY.

The following additions have been made to the Library since the meeting held in February last:—

#### TRANSACTIONS, PROCEEDINGS AND JOURNALS,

*presented by the respective Societies and Editors.*

- Calcutta. Buddhist Text Society of India,—Journal, Vol. III, Part 2.  
 ———. Geological Survey of India,—Memoirs, Vol. XXVII, Part 1.  
 ———. ———. Records, Vol. XXIX, Part 1.  
 ———. Indian Engineering,—Vol. XIX, Nos. 7-9.  
 ———. The Indian Lancet,—Vol. VII, Nos. 4. and 5.

- Calcutta. Indian Meteorological Memoirs,—Vols. VI, Parts 2; VII, 5; IX, 1.
- Ithaca. Cornell University,—Library Bulletin, Vol. III, No. 10.  
 ———. ———. Register, 1895–96.
- Leipzig. Die Deutschen Morgenländischen Gesellschaft,—Zeitschrift, Band XLIX, Heft 4.
- Liège. La Société Géologique de Belgique,—Annales, Tome XX, No. 4.
- London. The Academy,—Nos. 1239–41.  
 ———. The Athenæum,—Nos. 3562–64.  
 ———. Geological Society,—Geological Literature, 31st December, 1895.  
 ———. ———. Quarterly Journal,—Vol. LII, Part 1.  
 ———. Institution of Electrical Engineers,—Journal, Vol. XXIV, No. 119.  
 ———. Nature,—Vol. LIII, Nos. 1370 and 1371.  
 ———. Royal Astronomical Society,—Memoirs, Vol. LI.  
 ———. ———. Monthly Notices,—Vol. LVI, No. 3.  
 ———. Royal Geographical Society,—Geographical Journal, Vol. VII, No. 2.  
 ———. Royal Microscopical Society,—Journal, Part 6, 1895.  
 ———. Royal Society,—Proceedings, Vol. LVIII, No. 352.
- Madras. The Indian Journal of Education,—February, 1896.
- Mussoorie. The Indian Forester,—Vol. XXII, No. 2.
- Paris. Journal Asiatique,—IV<sup>e</sup> Série, Tome VI, No. 2.  
 ———. La Société Philomathique de Paris,—Compte-Rendu Sommaire de Séance, No. 7, 1896.
- Rome. La Società Degli Spettroscopisti Italiani,—Memoire, Indice, Tome XXIV.
- St. Petersburg. Comité Géologique,—Bulletins, Supplément au Tome XIV.  
 ———. ———. Mémoires, Tome X, No. 4.  
 ———. Russian Imperial Geographical Society,—Proceedings, Vol. XXXI, No. 5.
- Sydney. Linnean Society of New South Wales,—Proceedings, Vol. X, Part 3; and Supplement to Vol. X.
- Taiping. Perak Government,—Gazette, Vol. IX, Nos. 2–4.
- Tōkyō. Imperial University of Japan,—Journal of the College of Science, Vols. VIII, Parts 3; IX, 1.
- Vienna. Die K. Akademie der Wissenschaften,—Almanack, 1894.  
 ———. ———. Archiv für Österreichische Geschichte,—Band LXXXI, Heft 2.  
 ———. ———. Denkschriften—Band LXI.



Vienna. Die K. Akademie der Wissenschaften,—Sitzungsberichte, Math.-Naturw. Cl, Abth. I, Band CIII, Heft 4-10; II a, CIII, 6-10; II b, CIII, 4-10; III, CIII, 5-10.

———. ———. Phil.-hist. CL., Band CXXXI, und Register Band CXXXI-CXXX.

Yokohama. Asiatic Society of Japan,—Transactions, Vol. XXIII.

### MISCELLANEOUS PRESENTATIONS.

Report on the Nagpur Experimental Farm in the Central Provinces for the year 1894-95. Fcp. Nagpur, 1896.

Returns of the Rail-borne Traffic of the Central Provinces during the quarter ending the 30th September, 1895. Fcp. Nagpur, 1895.

CHIEF COMMISSIONER, CENTRAL PROVINCES.

ANDERSON, J. D. A short vocabulary of the Aka language. 8vo. Shillong, 1896.

GOVERNMENT OF ASSAM.

BLANFORD, W. T. The Fauna of British India, including Ceylon and Burma, Birds, Vol. III. 8vo. London, 1895.

Notes on the Administration of the Registration Department in Bengal for the year 1894-95. Fcp. Calcutta, 1895.

Returns of the Rail and River-borne Trade of Bengal during the quarter ending the 30th September, 1895. Fcp. Calcutta, 1896.

GOVERNMENT OF BENGAL.

The Indian Antiquary for November and December, 1895. 4to. Bombay, 1895.

North Indian Notes and Queries for January, 1896. 4to. Allahabad, 1896.

GOVERNMENT OF INDIA, HOME DEPARTMENT.

The Agricultural Ledger, Agricultural Series, No 14; Entomological Series, No. 4; Implements and Machinery Series, No. 3. 8vo. Calcutta, 1895.

Epigraphia Indica, Vol. IV, Part 2. 4to. Calcutta, 1895.

GOVERNMENT OF INDIA, REVENUE AND AGRICULTURAL DEPARTMENT.

Bulletin of the Department of Land Records and Agriculture, N.-W. P. and Oudh, Veterinary Series, Nos. 2 and 3. 8vo. Allahabad, 1895.

GOVERNMENT OF N.-W. P. AND OUDH.

Report on the Administration of the Punjab and its Dependencies for 1894-95. Fcp. Lahore, 1896.

GOVERNMENT OF THE PUNJAB.

Monumenta Conciliorum Generalium, Tome III, Pars 3. 4to. Vindobonae, 1895.

DIE KAISERLICHE AKADEMIE DER WISSENSCHAFTEN, WIEN.

Monthly Weather Review for August and September, 1895. 4to.  
Calcutta, 1895-96.

METEOROLOGICAL REPORTER TO THE GOVERNMENT OF INDIA.

Eighth Report of the Microscopical Society of Calcutta for the year  
1895. 8vo. Calcutta, 1896.

MICROSCOPICAL SOCIETY OF CALCUTTA.

SCHMIDT, DR. CARL. Synchronistische Tabellen über die Naturwissen-  
schaftliche Journalliteratur von. 1650-1893. 8vo. Dorpat, 1895.

DIE NATURFORSCHER-GESELLSCHAFT, DORPAT.

Bulletin of Miscellaneous Information of the Royal Gardens, Kew, 1895.  
8vo. London, 1895.

ROYAL GARDENS, KEW.

### PERIODICALS PURCHASED.

Calcutta. Indian Medical Gazette,—Vol. XXXI, No. 2.

Geneva. Archives des Sciences Physiques et Naturelles,—Quatrième  
Période, Tome I, No. 1.

Leipzig. Annalen der Physik und Chemie,—Band LVII, Heft 2.

———. ———. Beiblätter, Band XIX, Stück 12.

London. The Messenger of Mathematics,—Vol. XXV, Nos. 2-5.

———. Numismatic Circular,—Vol. IV, No. 39.

Vienna. Vienna Oriental Journal,—Vol. IX, No. 4.

### BOOKS PURCHASED.

CLARKE, H. WILBERFORCE. The Sikandar Nāma, e Barā or Book of  
Alexander the Great. Translation. 8vo. London, 1881.

DUTT, MANMATHA NATH. The Wealth of India Series, Vol. III, Parts  
I-VI. 8vo. Calcutta, 1895.





PROCEEDINGS  
OF THE  
ASIATIC SOCIETY OF BENGAL,  
FOR APRIL, 1896.

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Plates I.—IV. will be issued with a subsequent Number.

Fourteen presentations were announced, details of which are given in the Library List appended.

The following gentlemen duly proposed and seconded at the last meeting of the Society were ballotted for and elected Ordinary Members :—

The Hon'ble Mr. Guruprasād Sen.  
Bābu Çyām Lāl Mallik.

The following gentlemen are candidates for election at the next meeting :—

Bābu Aghōr Candra Bhāduṛi, L. M. S., Medical Practitioner, Calcutta, proposed by S. C. Laharry, Esq., seconded by Dr. G. A. Grierson.  
Paṇḍit Mahēndranāth Vidyānidhi, Calcutta, proposed by Dr. Aṇṭōḥ Mukerji, seconded by Bābu Mahēndranāth Rāya.



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Plates I.—IV. will be issued with a  
subsequent Number.

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PROCEEDINGS  
OF THE  
ASIATIC SOCIETY OF BENGAL,  
FOR APRIL, 1896.

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The Monthly General Meeting of the Asiatic Society of Bengal was held on Wednesday, the 1st April, 1896, at 9 P. M.

DR. A. F. R. HOERNLE, Vice-President, in the chair.

The following members were present :—

Dr. A. W. Alcock, F. Finn, Esq., His Grace Dr. Paul Goethals, T. H. Holland, Esq., Bābu Pañcānana Mukherjee, Dr. D. Prain, Dr. G. Ranking, Paṇḍit Haraprasād Čāstri, Bābu Nagendra Nāth Vasu, C. R. Wilson, Esq.

The minutes of the last meeting were read and confirmed.

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Paṇḍit Mahēndranāth Vidyānidhi, Calcutta, proposed by Dr. Aḥutōṣ Mukerji, seconded by Bābu Mahēndranāth Rāya.

The following gentlemen have expressed a wish to withdraw from the Society :—

Kumār Dinēndranārāyaṇ Rāya.  
Bābu Çarat Candra Caṭṭerji.

The Secretary reported the death of the following Member :—  
Dr. R. Rost (Honorary Member).

The Philological Secretary read the following obituary notice of the death of Dr. R. Rost, an Honorary Member of the Society.

Our Society has to mourn his loss of one of its most distinguished Honorary members who has recently died very suddenly—Dr. Reinhold Rost, who was till within a short time of his death occupied actively in work connected with Oriental language and literature. On the 7th February last, Dr. Rost was at Canterbury in the performance of duties connected with St. Augustine's College, where he lectured weekly, when death put an end to his labours, and completed a life spent in the service of the languages and literature of the East. Reinhold Rost was born seventy-four years ago in a small manufacturing town in the duchy of Saxe-Altenberg. He was the son of a Lutheran minister holding the Office of Archdeacon. He was educated at the University of Jena where he graduated as Ph. D. in 1847, and almost immediately after taking his degree proceeded to England, where he had been offered a small teaching appointment, at the institution above referred to, as Oriental lecturer.

In 1864 he became Secretary to the Royal Asiatic Society, and in 1869 was appointed librarian to the India Office in succession to Dr. Fitz Edward Hall, which post he held till 1893, when he was succeeded by the present librarian Mr. Tawney whose name is so honourably known to us all in this Society. "Dr. Rost will long be remembered" says the *Academy* in its obituary notice, "as the ideal librarian to the India Office. Though primarily a Sanskritist, he had to consider the claims of Arabic and Persian, of Pali, Burmese, and Sinhalese, of Tibetan and Malay, and of countless vernaculars. Of all these languages he had a competent knowledge, and he had further to give his attention to questions relating to archæology, ethnology, and Indian history. In brief Dr. Rost elected to turn himself into an oriental encyclopædia which no one ever consulted in vain."

He was subsequently elected an Honorary Member of the Royal Asiatic Society a distinction reserved by that Society for thirty only of the leading orientologists of the world, and still more recently became Member of the Council.



The India Office Library practically owes its existence in its present form to Reinhold Rost, and even after his somewhat enforced retirement in 1893, he continued to do much useful work in an unofficial capacity for the institution in which the real interest of his life was centred. "Above all things" says the *Athenæum* "the India Office Library became under him, as the Asiatic Society was before, the natural and regular resort of all students of the East, old and young who might be visiting London; and they could not come away without feeling that they had profited by his profound knowledge, ready counsel, and genial sympathy."

Dr. Rost wrote little under his own name. His first publication was an *Essay on the Hindū Sources of Burmese law* (1850), and he also compiled a catalogue of the palm-leaf MSS. in the Imperial Library at St. Petersburg, 1852). He however was the hidden source of much that has issued from other men inspired by his learning and encouragement, he was also the editor of H. H. Wilson's selected works, of Briau Hodgson's *Collected Papers*, and of four volumes of *Miscellanies* relating to Indo-China.

In conjunction with M. Nicholas Trübner, whose valued friend he was, a series of "Simplified Grammars" was planned and edited by Dr. Rost

Public recognition of his vast attainments came in the form of honorary degrees from various universities, Edinburgh conferring upon him the LL.D., while Oxford made him an M.A. *Honoris Causâ*, a distinction attainable by very few. Prussia, Russia and Sweden gave him decorations and in 1888 he was appointed a Companion of the Most Eminent Order of the Indian Empire. He married in 1863, and leaves a son who is a sculptor of eminence. The bust of Mr. Tawney now standing in the vestibule of the Senate House of the Calcutta University is ample testimony for all here to the skill of Reinhold Rost's son who executed it; none who have seen it, and knew the original, can fail to be struck with the fidelity of the portrait in marble. Dr. Rost was elected to the Honorary Membership of this our Society in March 1894, and by his death we feel that our Society has lost one of the most distinguished of those men whom it has been its pride to enrol among its Members in acknowledgment of their life-devotion to the sacred cause of scientific advancement, and in testimony of the value placed by this Society upon the results of their life's work.

The Philological Secretary also read the following report, dated 29th November, 1895, submitted by Dr. G. A. Grierson to the Government of Bengal, General Department, on his investigation at Bôdh-Gayâ.

Dated Howrah, the 29th November, 1895.

From—G. A. GRIERSON, Esq., PH. D., C. I. E., Magistrate of Howrah,  
To—The Secretary to the Government of Bengal, General Department.

WITH reference to your No. 408 T.G., dated the 31st October, 1895, I have the honour to report, that I left this for Bodh-Gayā on the 9th instant, and examined the masons' marks referred to.

2. I now beg to forward herewith a report of what I saw there. I regret that it is not more satisfactory.

3. I may add that I have consulted Dr. Hœrle, and he has authorised me to state that he agrees with the conclusions arrived at by me.

### REPORT.

DR. BÜHLEB, in his study on the Indian Brāhma alphabet (page 30), refers to a discovery of Sir A. Cunningham at Bōdh-Gayā in the following terms:—

“ In the cloistered walk, which Asōka erected over the supposed *Caṅkama* of Buddha, there is a double row of pillars, eleven on each side, which bear the following letters\*—

“ On the south side—*a, ā, i, ī, u, ū, e, ai, o, au, aḥ*.

“ On the north side—*ta, ṅa, jha, ja, cha, ca, ṅa, gha, ga, kha, ka*.

“ The characters, of which some specimens are given, *op. cit.* Plate X, No. 1, are of the same type as those of Asōka's Edicts.† They are, no doubt, masons' marks, and intended for numbering the pillars according to the simplest and most natural system of notation by means of the letters. As the Indian masons are neither great scholars nor quite illiterate,‡ it may be assumed that the alphabet, which they used, is the popular one of the elementary schools of the day. As far as it goes, it closely agrees in its character with that still taught in the modern indigenous schools, and omits, like it, and like the alphabet of the Lalita vistara, the vowels *ṛ, ṝ, ḷ, ḹ*. If it omits also the eleventh vowel *am*, giving *aḥ* in its place, that is no doubt due to a mistake of

\* Cunningham, Mahābodhi Gayā, page 8; Plates V, No. 3, and X, No. 1.

† It will be shown below that the *ga* with the round top and the peculiar *cha*, which they contain, occur also in the Edicts.

‡ The Indian masons, the Sutrādharas or Vardhakins of the older literature and the Sileṭās of our days, occupy an intermediate position between the Aryan and the Sūdra classes. They wore, and still wear, the sacred thread, and they once possessed, and still possess, a small amount of Sanskrit learning. The rules of their craft, which they commit to memory, are written in Sanskrit, and are at present largely mixed with Prakrit and barbarous bastard forms.

the engraver; for no alphabet could be without this *mātrkā*, least of all that of Aśoka's times, when Anusvāras were used very extensively.

"Sir A. Cunningham's discovery possesses, as he himself has pointed out, considerable importance for the history of Indian writing. The masons' alphabet, with its diphthongs *ai* and *au*, the Visarga in the group *aḥ* and the guttural *ṣa*, deals a heavy blow to the theory, according to which the writing of the third century B.C. and earlier times served merely the purposes of the Prakrit dialects. It is as plain as possible that this alphabet has been framed for the requirements of Sanskrit, and it is at least highly probable that its formation is due to the Brahmans, whose influence and peculiar theories are also recognizable, as will appear further on, in the manner of the derivation of the secondary signs from the original ones. In the third century B.C., it appears the state of things in the elementary schools was the same as in our days. The children learnt an alphabet which was not intended for their vernacular dialects, and this was no doubt due to the circumstance that already then (as later, when the legend regarding Buddha's Brahminical writing-master, Viśvāmitra, arose, and also in modern times) the elementary instruction was chiefly in the hands of the Brahmans, who did not think it worthwhile to alter, for the sake of their Prakrit-speaking pupils, the alphabet invented and suited for the peculiar *bhāṣā* of their schools and class."

As I knew Bōdh-Gayā pretty well, and had no memory of this important series of masons' marks, I visited that place, under instructions of the Bengal Government, in the middle of November, and examined the pillar, or rather pillar bases, referred to by Dr. Bühler, with some minuteness. Sir A. Cunningham's description\* is as follows:—

"This cloistered walk, which still exists close to the north side of the Temple, is a simple brick wall, 53 feet long, 3 feet 6 inches broad, and a little more than 3 feet in height. On each side there is a row of 11 Persepolitan pillar bases, of the well-known pattern of a vase placed above three or four steps and surmounted by a parabolic moulding with an octagonal top for the reception of an octagonal shaft. Each of these bases was marked with a separate letter of the Aśoka alphabet, the 11 bases on the south side bearing the 11 vowels *a, ā, i, ī, u, ū, e, ai, o, au, aḥ*, and the northern bases the first 11 consonants *k, kh, g, gh, ṅg, ch, chh, j, jh, ny, t*. In Plate V [of *Mahābodhi*], I have given one of the Bharhut bas-reliefs, which I feel certain must be a representation of one of these covered walks. In the same plate I have given a view of the remains of Buddha's walk at Mahābodhi. The whole length of the walk is given with the northern row of pillar bases still *in situ*,

\* *Mahābodhi*, page 8.

and the broken shaft placed on the end base. The walk itself was still visible in Hwen Thsang's time (A.D. 640); but the pillar bases were then covered by a plastered terrace. This arrangement of letters has an important bearing on the antiquity of the Indian alphabet, as it shows that the several characters had already been arranged in their present groups as gutturals, palatals, cerebrals, dentals, labials, semi-vowels and sibilants. The southern row of these bases was partly hidden under the basement of the Great Temple which had been built over them on a slightly different alignment, part of the two most westerly bases alone appearing 7 inches outside the wall, while all the easterly bases were completely covered.

"As these pillar bases showed that the walk had once been roofed over, I made diligent search for some remains of the pillars, and I was fortunate enough to light upon an octagonal shaft with a female figure on it, which had been brought to light by Mr. Beglar's excavations. On measuring the bottom of the shaft, I was delighted to find that it was of the same dimensions as the recessed tops of the bases. The westerly base of the southern row, which bore the Aśoka letter A, was therefore extracted and when the octagonal shaft was set upon it, it was found to fit so exactly that there could be no doubt that the two pieces belonged to the same pillar. This proved to be the case when, turning the shaft round for a better view, it was found to be marked with the same letter A as the base on which it was then standing. No fragments of other shafts have yet been found."

Sir A. Cunningham gives photographic fac-similes of the letters on Plate X, fig. 1, of his work, and on page 16 annotates this illustration in the following terms:—

"At the top of the plate, fig. 1, I have given fac-similes of the Aśoka letters found on the Persepolitan pillar bases of Buddha's walk. The first two are the vowel *a* on the base and its shaft; the third letter, *k*, was found on the first base of the northern line, opposite *a*. The remaining letters, *g*, *chh*, *j* and *t*, were found on the 3rd, 7th, 8th and 11th bases of the same line. The other letters were lost owing to the breaking of the edges or lips of the upper parts of the bases."

I now proceed to describe what I myself saw. As my account will differ from that of Sir A. Cunningham's in important particulars, casts of the entire row of pillar bases will be deposited in their original order in the Indian Museum, so as to enable scholars to judge for themselves.

In his "Mahābodhi" (Plate V), Sir A. Cunningham gives what purports to be an accurate plan to scale of Buddha's *Caṅkama* as he saw it. As this plan is not correct for the *Caṅkama* as it now stands, I give in figure 1 a new plan drawn to scale by the overseer in charge of the Temple.

The row of pillar bases on the south side, mentioned by Cunningham, is no longer visible. In the process of repairing the Great Temple most of them have been left buried within the walls of its foundation. This may be presumed from Cunningham's description, and is borne out by the statement of Jagannāth Singh, the custodian of the Temple on behalf of the Mahanth, who was there when the repairs were going on.\* In my plan the supposed original sites of these southern bases are indicated by dotted squares, and the line of the Temple wall is shown. According to General Cunningham, this southern line of bases was lettered as follows in the Brāhma (or so called Pāli) alphabet:—

Number of base	...	...	11, 10, 9, 8, 7, 6, 5, 4, 3, 2, 1.
Letter	...	...	<i>aḥ, au, ā, ai, ā, ū, u, ī, i, ā, a.</i>

He states, however, that the only letter which survived was that on No. 1, *viz.*, *a* (𑀅). This pillar-base was sent by General Cunningham to the Indian Museum, where it deposited in the Aśoka gallery, and is numbered in the catalogue AR. It bears the letter *a* (𑀅) clearly cut upon it, but lying on its side, thus (𑀅). There are deposited alongside of this pillar-base two step-like plinths of what were apparently similar bases (catalogue mark, ST). These are very possibly all that remained of the bases which General Cunningham said bore the letters *ā* and *i*. Regarding the letters on the remaining pillar-bases he says that they have all chipped off. It is impossible to check his statement, for the bases are no longer visible. It is not improbable that Nos. 2 to 7 bore the letters attributed to them, but I cannot understand on what authority he makes out that No. 8 bore *ai*, that No. 10 bore *au*, and that No. 11 bore *aḥ*, or on what authority he omits the vowels *r*, *ṛ*, *l*, or *ḷ*. The last four have just as much right to appear as *aḥ*. The diphthong *ai†* is a very rare letter, and no instance of the existence of *au* is known to occur elsewhere.

The letter *aḥ* does not occur in the Pāli language. It only occurs in Sanskrit, so that if it existed on any one of these pillar-bases, it would prove that Sanskrit was a written language at the time when the masons made the mark. In order to locate it on the eleventh base, besides omitting the letters *r*, *ṛ*, *l*, *ḷ*, which do not occur in Pāli, General Cunningham has had to omit the very common Pāli letter *am* (*anusvāra*).

\* It is, however, stated by him that only the first (*a*) base was unearthed from the foundations, and that the remaining bases on that side were never seen by General Cunningham. As a matter of fact, General Cunningham sent the *a* base, and, possibly, the plinths of the two next ones, to the Indian Museum.

† The only instances of the occurrence of *ai* which I know of are in the word *thaira* which appears three times in the Girnār rock inscription. It usually appears in Pāli under the form *ē*.

It is beyond the bounds of probability that, in writing the vowels in alphabetical order, the masons should have omitted so common a letter, and have substituted in its place a letter hitherto not met with in the alphabet. In my opinion, if there was originally any letter on the eleventh southern base, it must have been *am*, not *aḥ*. At any rate, Sir A. Cunningham never *saw* any letter on the eleventh base at all, and, owing to the disappearance of the base inside the wall of the great Temple, it is impossible to find out the grounds of his statement.

Regarding the alleged existence of *ai* on No. 8, and of *au* on No. 10, though there is no proof of their ever having been there, their existence is not impossible. The testimony of the Girnâr rock Edict show that *ai*, though rarely used, did exist in Aççka's Pâli, and if *ai* existed, there is no reason for *au* not also existing, though no instances of its existing are known to occur. At any rate, whether they were there or not, their presence there does not prove that, at the time of their inscription, Sanskrit was a written language.

The northern row of pillar-bases is still in existence and is accessible for examination. Sir A. Cunningham does not say that he or Mr. Beglar found them in the sites that they now occupy. They may have been found lying about amid the débris of the ruins, and put up where they are now by Mr. Beglar. I enquired from old servants of the Mahauth, and from Jagannâth Singh, already referred to, who informed me that they *were* found *in situ*. At the same time, I must point out that base No. 2 is not of the same design as the rest. The vase itself and the top are octagonal and not round, and the moulding between the top and the vase is smaller and of a different pattern. Possibly it was substituted after the original pillars were erected, during one of the many repairs which the Temple and its precincts have undergone.

According to Sir A. Cunningham, this row of bases was lettered as follows in the Brâhma alphabet:—




Number of base	...	11, 10, 9, 8, 7, 6, 5, 4, 3, 2, 1.
Letter	...	ṭa, ṇa, jha, ja, cha, ca, ga, gha, ga, kha, ka.

Of these, according to Cunningham, only the letters on Nos. 1 (*ka*), 3 (*ga*), 7 (*cha*), 8 (*ja*) and 11 (*ṭa*) had, in his time, survived. The others had been chipped off. I find on inspection that there are now no letters on numbers 3 (*ga*), 8 (*ja*) and 11 (*ṭa*). If these existed in Cunningham's time on the bases mentioned by him, they have since been chipped off.

On the other hand, No. 5 distinctly bears a letter shaped thus





, which does not belong to the Pâli alphabet, unless it is a

by-form of  *ga*, which should have appeared on No. 3, and which Cunningham says he saw there under the form  with rounded (not angular) corners at the top. According to Cunningham this base (No. 5) should have borne the Brāhma letter *ga*, which, though very rare, occurs under the form .

As this point is of some importance for the purposes of palæography, I give in figure 2 a reproduction of Cunningham's representation of the rubbings of the letters taken by him, and in figure 3 a photograph (actual sizes) of the rubbings taken by me.

The *ga* with the round top represented by General Cunningham, occurs, according to Dr. Bühler, once in the Delhi Siwālik column (Ed. VII), and in all inscriptions of the second century B.C. Its form (together with that of *cha*, to be noted later on) is of importance as proving the date of the masons' marks. But did it ever exist here? I cannot believe that so acute an observer as General Cunningham should not have noticed the perfectly plain mark on No. 5, and it appears to me to be most probable that the round topped *ga* which he gives is (whatever letter it represents) merely a faulty impression of the square topped letter on No. 5, and that, led by his reading it as *ga*, he has, by a slip of memory, located it on No. 3, where *ga* ought to have existed. I may add that No. 3 is now so badly damaged that I do not think it likely that any letter could have been visible on it so comparatively short a time ago as General Cunningham's last visit.

As to what this angular topped letter on No. 5 is, I do not like to give any decided opinion. It is certainly not *ga* () as hitherto known, which should appear on that base (if it is arranged in alphabetical

order). It might possibly represent *bha* () with the right

hand top appendage worn away, but this is the 23rd consonant of the Indian alphabet, and would be altogether out of place. It may also be a later development of a round topped *ga*, but I know no other similar case in the ancient Aṣṭaka alphabet, though it occurs in later alphabets, especially in the old Pāli alphabet of the Burmese. In this case the mark (if the bases are in alphabetical order) should be on the third, and not on the fifth base, and either the bases were not originally in alphabetical order, or their order was changed at some time subsequent to their erection. In the first alternative, the whole theory of the masons' marks representing an alphabetical order falls to the ground. In

the other case, if the position of this base has been altered, the position of other bases may have been altered too, and, as evidence of the order of the ancient Brāhma alphabet, the whole row of bases is valueless.

Unless, therefore, the letter on No. 5 can be shown to be some Brāhma form of *ga*, with which I am unacquainted, these masons' marks prove nothing. Dr. Bühler states that the letter *ga* occurred in Sanskrit and not in Pāli. If therefore, the mark does represent *ga*, it affords valuable evidence of the fact that the Sanskrit alphabet was written when the masons' marks were made.

The letter on No. 7, *cha*, has the form  $\circ$  instead of the more usual  $\odot$ . According to Dr. Bühler, it occurs once in the Kālsi Aṣoka inscription, and frequently in the inscriptions of Hāthigumphā, Nānāghāt, Mathurā, and the Western Caves.

To sum up this portion of the subject.

The following table shows (a) the marks on the pillars as Sir A. Cunningham saw them, (b) the marks which I have seen, and (c) the complete series of marks which should have been on them if Sir A. Cunningham's theory is correct:—

(a)		(b)		(c)	
1		2		3	
1	<i>ka</i> ...	<i>ka</i> ...	<i>ka</i> ...	<i>ka</i> ...	<i>ka</i> ...
2	— ...	— ...	— ...	<i>kha</i> ...	<i>kha</i> ...
3	<i>ga</i> ...	— ...	— ...	<i>ga</i> ...	<i>ga</i> ...
4	— ...	— ...	— ...	<i>gha</i> ...	<i>gha</i> ...
5	— ...	? <i>ga</i> ? <i>ga</i> ...	? <i>ga</i> ? <i>ga</i> ...	<i>ga</i> ...	<i>ga</i> ...
6	— ...	— ...	— ...	<i>ca</i> ...	<i>ca</i> ...
7	<i>cha</i> ...	<i>cha</i> ...	<i>cha</i> ...	<i>cha</i> ...	<i>cha</i> ...
8	<i>ja</i> ...	— ...	— ...	<i>ja</i> ...	<i>ja</i> ...
9	— ...	— ...	— ...	<i>jha</i> ...	<i>jha</i> ...
10	— ...	— ...	— ...	<i>ña</i> ...	<i>ña</i> ...
11	<i>ṭa</i> ...	— ...	— ...	<i>ṭa</i> ...	<i>ṭa</i> ...


I have examined these pillar bases with the greatest care several times by both morning and evening light, and I cannot discover even the faintest trace of any of the letters seen by Sir A. Cunningham, and which I have marked in column (b) as not existing.

I now proceed to describe the condition of each pillar-base in the northern row. Each base, as mentioned by Sir A. Cunningham (Mahā-



bodhi, page 8) represents a vase placed above a plinth composed of three steps, and surmounted by a parabolic moulding with an octagonal top for the reception of an octagonal column. It would be more correct to speak of the top as circular with an octagonal recess cut in the top surface to receive the column. The annexed figures show (figure 4) a plan of the circular top, drawn to a scale of one inch to a foot, and (figure 5) an elevation of the whole. The rim is marked with four radial lines on the top surface of the outer edge or lip. These are evidently marks for orienting the vase, as they point north, south, east and west respectively. They are shown on the plan (figure 4). The letter *ka* on No. 1 is cut on the outer edge of the rim, below, and about an inch and a half to the east of the northern line. In Nos. 5 and 7 the letters are also on the outer rim, but exactly under the northern line.


No. 1.—This is in good order, and the *ka* is cut clearly on the northern side of the rim. Mr. Beglar has set up on it an octagonal pillar shaft, which evidently belonged to one of the series of vases. It is figured in Plate IV of Cunningham's *Mahābodhi*, and described by the author in page 9 of that work. I give a sketch of it in figure 6.

Cunningham says that this pillar shaft was marked with the Pāli letter *a*, and that it was originally fixed in the base No. 1 of the south row (now in the Indian Museum). On examining the shaft, I do find a trace of that letter. At one place, just above a chipped place, there are two marks, thus . These are most probably the remains of the letter *a* (𑀅) lying on its side, as is the case in the letter on the corresponding pedestal (see page 2). Figure 7 is a photograph of the rubbing of this mark.

No. 2.—This is badly damaged. The west side is knocked off. Only portions of the eastern and of the southern rims remain. No masons' mark visible. As already pointed out, this pillar's base differs from the others in its general designs, being octagonal and not circular.

No. 3.—This is the one on which General Cunningham says he found the letter *ga*. The northern and the southern rims have been chipped off, and no masons' mark is now visible.

No. 4.—Badly damaged. Of the rim, only portions of east and west sides remain. No masons' mark.

No. 5.—Also badly damaged. The northern and eastern rims are, however, nearly complete. On the northern face of the rim, just under the northern orientation mark, is the letter , which Cunningham perhaps read as *ga*, and said was on No. 3.

No. 6.—In fair condition, but the northern and eastern parts of the

rims are chipped off. As all masons' marks appear to have been on the northern rim, there is none visible.

No. 7.—The whole of the south side of this base knocked off. The north side is complete and the rim bears clearly the letter *cha*. The orientation of this base is not quite in line with that of the rest.

No. 8.—Badly damaged. The whole of the south side knocked off; also the northern and western rims. Cunningham says that this base bears the letter *ja*. There is no trace of this letter, nor, as the fractures are evidently very old, can I understand how it can have been on its usual place on the north side when he saw it.

Nos. 9 and 10 are mere fragments of the plinths on which the bases stood.

No. 11.—Cunningham says that this base bore the letter *ta*. There is now no trace of this letter. The base is badly damaged, the south-west side and nearly the entire rim having been knocked off. The top of the rim bearing the northern orientation mark still exists, and we should find the mason mark under this. Unfortunately the lower part of this rim, where the mark should occur, has been chipped away. The fracture looks comparatively recent.

To sum up. I think it may be assumed that all these pillar bases, both on the south and on the north side, had masons' marks. There were eleven bases on each side. Of those on the south side (of which eight are still buried in the Temple wall and one, or, perhaps, three in the Indian Museum) the first (western) base was marked with the letter *a* and is now exhibited in Calcutta. There is no evidence as to what letters the other bases bore, and Cunningham's statement that they bore the letters *ā, i, ī, u, ū, ē, ai, ō, au, aḥ*, cannot be supported.

On the north side the first (western) base has *ka*, and the seventh has *cha*; *cha* is the seventh consonant of the Sanskrit alphabet and the sixth of the Aṣṭaka alphabet. If, therefore, the pillars are in their original order, as Jagannāth Singh states, this tends to prove that Sanskrit was a written language when the masons made the marks.

On the other hand, the letter which Cunningham appears to have read as *ga*, and which he says he saw in its right alphabetical place on the third base, is really on the fifth base, and, if it is *ga*, is not in correct alphabetical order. If therefore the reading is correct, the bases were either not originally set up in alphabetical order, or have since been interchanged. In either case their value as regards the history of the Indian alphabet is very small.

The letters *ju* and *ta* seen by Cunningham are no longer visible.

The importance of these bases rests on the correct reading of the

mark on No. 5. If it is to be read as *ya*, they go to prove that Sanskrit was written in the second century B. C., when the masons' marks were made; or, at least, add a hitherto unknown letter to the Pāli alphabet.

For these reasons, casts of the complete set of the northern row of pillar bases are worth taking, and I am leaving instructions accordingly.

G. A. GRIERSON.

*The 25th November, 1895.*

*P.S.*—Since writing the above, the Mahanth and his people assure me that no one has ever seen the pillar bases on the south side, which are now built into the foundation wall of the Temple, except the first one, which Sir A. Cunningham says was marked *a*. They say, 'Cunningham Sāhib read his books and took measurements, and then dug into the wall of the Temple and found the *a* base. He never dug into the wall for the others, but as Cunningham Sāhib says they were there, they are there. Cunningham Sāhib could read books and knew everything, and when he said anything was in any place, he was always right.' This probably means that General Cunningham did not venture to dig into the walls for the last eight bases which his account shows were entirely within the foundations. He certainly removed No. 1, and probably the plinths of Nos. 2 and 3, which were partly visible and could be removed without injury to the main building (*see* quotation on page 54). These are the three exhibits now in the Açōka gallery of the Indian Museum.

G. A. G.

Since the above was printed, Dr. Bühler informs me that has no doubt that the sign on No. 5 is an old form of *ya*.

G. A. G.

Mr. Frank Finn, Deputy Superintendent of the Indian Museum, exhibited some rare Indian Ducks and read the following note:—

*On the occurrence in India of two rare ducks, Fuligula baeri and  
Erismatura leucocephala.*

*By FRANK FINN, B.A., F.Z.S., Deputy Superintendent, Indian Museum.*

The ducks of which I have the honour to exhibit specimens to the Society to-night, belong to two species, one of which, as far as I can ascertain, has not hitherto been recorded as a visitor to our Empire.

I would first draw your attention to eight specimens of Baer's

Pochard,\* *Fuligula baeri* Radde, which I obtained, with three others, in the Calcutta Provision Bazaar, on the 24th and three following days of last February. Three of these are males, and five females, and in addition there are two living males in the Zoological Gardens at Alipore, where the remaining female has apparently recently died.

This species is to be found in East Siberia (whence Radde described it) China, and Japan. The birds will be added to the Museum collection, where there is already a specimen apparently of this form, numbered 1789D. in Blyth's catalogue, but referred to the common and nearly allied species *F. nyroca*. This was procured in the Bazaar in 1842 or 3.

The single specimen of the second species exhibited belongs to that curious form the white-faced Stiff tail Duck (*Erismatura leucocephala* (Scop.) The present individual was sent to the Editor of the "Asian" newspaper by Captain H. R. Davies, who stated ("Asian," Feb. 14th, 1896) that it was shot by Captain E. D. White, 52nd Light Infantry, on the 22nd January last, at Bettia near Hardoi, between Lucknow and Bareilly. Captain White has kindly presented the specimen to the Indian Museum. It is in heavy moult, and quite incapable of flight, which considering the time of its occurrence is rather surprising, and almost looks as if the species might be somewhere resident within our limits. It is found usually in Southern and Eastern Europe, Northern Africa, and Western Asia, but is mentioned in the list of birds, in Mr. W. R. Lawrence's recently published work on the "Valley of Kashmir," p. 131, as having occurred in that country and once or twice in the Panjab.

The following papers were read :—

1. *On Jesuit Missions at the Court of the Emperor Akbar.*—By E. D. MACLAGAN, C.S.

The paper will be published in the *Journal*, Part I.

2. *On the origin of the Nāgaras and the Nāgarī-Alphabet.*—By NAGĒNDRANĀTHA VASU, Editor, *Viçvakōṣa*.

(Abstract.)

The Nāgarī specifies, a peculiar form of character. In printing Sanskrit works, this character has become the current one not only in

\* Since this paper was read Count Salvadori's volume of the British Museum Catalogue (xxvii) containing the ducks, has come to hand, in which I see that *F. baeri* has been recorded from Bengal, though this author appears (p. 344) to doubt the fact; the occurrence of so many specimens quite disposes of this doubt. From the same work it appears (p. 445) that the other species is less rare in India than I had supposed, though its presence in moult is still noteworthy. F. F.

India, but all over the civilised world, wherever Sanskrit language has made its progress. Hence, considering its wide-spread circulation and use, it is worthwhile enquiring into the origin of the name, by which this form of character is recognised by the civilised world, besides the origin of the form itself. This I have tried to explain to some extent in my article entitled 'The origin of the Nāgaras and the Nāgarī-alphabet.'

The abstract of my article is as follows:—

As the Gaurjara language and the Gaurjara character originated from Gurjara, as Vaṅga-bhāṣā and Vaṅga-lipi derived their names from Vaṅga (Bengal), so the Nāgara language and the Nāgarī character derived their names from a particular place called Nagara. This Nagara was ancient Camat-kāra-pura (present Baḍa-nagar) mentioned in the Nāgara-khaṇḍa of the Skanda-purāna, and described as having become desolated by the havoc of the Nāgas (snakes). A Brāhmaṇa named Trijāta by propitiating Mahādēva, drove away, by his favour all the Nāgas from this place and rendered it Na-gara, (poisonless) after which it came to be known by the name of Nagara. There Trijāta established the Brāhmaṇas who came from distant countries; these Brāhmaṇas afterwards bore the common local title of Nāgara for their residing in the city called Nagara.

In the *Prākṛta-candrikā* by Ṣeṣa-kṛṣṇa, Nāgara is mentioned, with others, as a corrupt dialect then current.

During the prosperity of its Hindu kings, none of the other Brāhmaṇas of Gujarāt attained to such high reverence before kings, as these Nāgara-Brāhmaṇas. And the language they used was very probably Nāgara.

The most ancient inscription in the Nāgarī character has been discovered in Gujarāt. Though various sorts of different characters were then in vogue there, all the inscriptions, celebrating the greatness of these Nāgara-Brāhmaṇas, inscribed during the reigns of the Hindu kings, are written in the Nāgarī characters. Even now, some Nāgara-Paṇḍitas of Gujarāt boast of their ancestors as the devisers of the Nāgarī-alphabet. The Nāgara-Brāhmaṇas, who long ago left their mother-country (Baḍa-nagar) and travelling over several tracts, settled at Ānaguṇḍi, Vijaya-nagar and other places of the Deccan, though, during many centuries of their residence among the people, they have quite lost their mother-tongue, and adopted those of the natives, still adhere to their ancient tribal character in writing religious books, while all the surrounding people use a character of their own.

Under such circumstances, I think the Nāgarī character to have been the character devised or adopted by the Nāgara-Brāhmaṇas of Gujarāt and named after them.

From a thorough examination into the forms of the ancient Nāgarī, it is obvious that the form is only a modification of the ancient Gupta-character. This ancient form was introduced into Gujārāt from Northern India by the Nāgara-Brāhmaṇas, which is proved by the fact that most of the copper-plates in Nāgarī found in Gujārāt were granted to the Brāhmaṇas come from Kānya-kubja, Puṇḍra-varḍhana, Pātali-putra, &c. No doubt Brāhmaṇas began to emigrate into Gujārāt and reside there long before that period.

I think the story of Trijāta and his driving away the Nāgas from Camat-kāra-pura is only an allegory. The Nāgas of the Nāgara-khaṇḍa were perhaps the snake-worshipper Shāh kings or the Nāga races of Gujārāt, who reigned there up to the 4th Century A.D. These Shāh kings, or the Nāgas, were afterwards defeated and driven away from Nāgara-Ānandapura by the Çaivas (worshippers of Çiva), who erected there numerous temples which were visited by the Chinese pilgrim Hiouen Tsiang in 7th Century A.D.

In the lists of Indian alphabets given in works prior to this period, no mention whatever is made of Nāgarī.

The first mention of Nāgarī-lipi, is in the Jaina Scripture Nandi-sūtra. Most of the Jainapriests hold, that the Nandi-sūtra was compiled at the same time or a little before, as the first publication of Kalpa-sūtra. In 453 A.D. by order of Dhruva-sēna king of Valabhī, the Kalpa-sūtra was read before the public at Ānandapura (present Baḍa-nagar). It is probable that the Nandi-sūtra was compiled about this time at Ānandapura, then a Jaina city, and the compiler had in view the character used by the Nāgara-Brāhmaṇas, when he enumerated the others.

At a shortly later period, in the copper-plate grant of Dadda Praçānta-rāga king of Gurjara, dated Çaka 415, we see the first specimen of the Nāgarī character in the Royal sign-manual upon the plate. It is very probable that this character came to be current somewhere about the latter part of the 4th and beginning of the 5th centuries.

During the reigns of the Rāṣṭra-kūṭa kings of Gujārāt, and their successors the Caulukyās, the Nāgara-Brāhmaṇas retained the Royal priesthood, the ministership and other higher offices of the state all to themselves. From the perusal of the copper-plates of these Rāṣṭra-kūṭa kings, we come to know, that some of them conquered Gauḍa, Vaṅga, Kaliṅga, Gāṅga, Magadha, Malava and several other countries in the 8th, 9th and 10th centuries A.D. It is possible during this period, the name Nāgara or Nāgarī became circulated in many parts of India.

This paper will be published in full in the *Journal*, Part I.

3. *Notes on the Decomposition of Mercurous Chloride and Estimation of Free Chlorine.*—By YATI BHŪṢAṆA BHĀDURĪ, M.A. Communicated by the Natural History Secretary.

4. *Noviciæ Indicæ, XI. Two new species of Lagotis.*—By DR. D. PRAIN.

The papers will be published in the *Journal*, Part II.

5. *Note on Double Rice.*—By DR. D. PRAIN. (With PLATE V.)

Some years ago Mr. Blechynden, then Secretary to the Agricultural Society of India, sent to the Botanical Garden specimens of a "double" rice. Of these specimens I now offer an account.

The phenomenon was found to be due merely to "proliferation" in the gynæcium, without any accompanying abnormality in the other parts of the flower.

The glumes are precisely those of the race of *Oryza sativa* known in Bengal as 'Kamal bhog,' a small-grained rice of high quality, of which I take the double rice to be a sport. The andræcium also in this sport has always been found normal.

In the gynæcium of over 150 flowers examined, not one was found with fewer than 4 ovaries (all apparently perfect), the usual number being 5; a good few flowers were found to have 6, and one or two had 7 ovaries; no flower had more than seven. When 5, 6 or 7 ovaries were present, sometimes only 3, but usually 4 or 5, appeared to be perfect.

In some hundreds of flowers of 'Kamal bhog,' 'Kal magru,' 'Lal kalam,' 'Mota bara, and 'Kala nadi'—these are the races mostly cultivated in the neighbourhood of Calcutta—which were examined at the same time, no example of duplication of the ovary was met with.

In the gynæcium of the flowers in this sport, the individual ovaries are sometimes all quite similar; oftener, however, one or more may have 3 styles instead of 2 (*see* fig. 8 *b.*), and in some of the flowers with 4 or 5 ovaries this is all the abnormality that can be detected, except that at times the two styles may be conjoined at the base in one or more of the ovaries (*see* fig. 8 *c.*). But in flowers with more ovaries than 5, one or more of them may remain flaccid, their walls being without chlorophyll, and the embryo remaining undeveloped; this may happen even in cases where the style seems to be perfect. In other cases, only one style and stigma may be developed (*see* fig. 8 *d.*); sometimes also the styles and stigmas may be imperfect (*see* fig. 8 *e.*) and very abortive ovaries may even be organically united laterally to adjacent ones (*see also* fig. 8 *e.*). In cases where the stigmas are imperfect, there is apparently never any formation of chlorophyll in the

ovarian walls. It happens that all the figures numbered 8 *a—e* are drawn from ovaries that were contained in the same flower.

After the stamens wither, it is most usual to find that only 2 ovaries continue to develop (*see* fig. 9), and then not infrequently one of these fails to grow as fast as the other (*see* fig. 10); but very often both grow equally (*see* fig. 11), and the result is the 'double rice.' In this case the inner faces of both the grains are flat with a whitish vertical central band (*see* fig. 12), and on section, the *embryo* of each is found at the outer, or *glumal*, aspect of the base of the grain.

In a few cases three grains are developed, and then instead of having flat faces (*see* fig. 14), they meet in the centre at the white line already mentioned (*see* fig. 15), this line being at the apex of an obtuse angle; the embryo is in each case at the outside, as before.

The accompanying Plate shows all the peculiarities noticeable in the flowers of this sport. The sport comes true to seed.

*Explanation of the Plate.*

PLATE V. "Double" Rice.

1. Spicule of "Double Rice" (*Oryza sativa* L., race 'Kamal bhog'—sport.)  
nat. size.
2. Single flower, × 4.
3. Single flower, lower glumes removed, × 4.
4. Single flower, outer upper glume removed, × 4.
5. Floral whorls, × 8.
6. Lodicule, × 16.
- 7a. Anther, × 16.                      7b. Style and stigma, × 32.
8. Five ovaries from same individual flower, which had seven ovaries, × 16.
  - a. two-styled perfect ovary.
  - b. three-styled perfect ovary.
  - c. two-styled perfect ovary, styles cohering at base.
  - d. pale flaccid ovary with only one style and stigma.
  - e. flaccid imperfect ovary with cohering styles and imperfect stigmas, and with an abortive ovary adherent to it laterally.
9. Fertilized flower: two ovaries developing, growth of the others arrested, × 4.
10. Another flower: one ovary so developed as to fill the glumes; a second that has been fertilized arrested in its growth at stage reached in flower of fig. 9, × 4.
11. Another flower: two ovaries fully developed, × 4.
12. Inner face of one of the young grains shown in fig. 11, × 4.
13. Vertical section of flower in stage reached in fig. 11, showing embryos at outer aspect of base in both. × 4.—In a normal rice grain the embryo is at the base of the *lodicular* side, *i.e.*, on the side averse from the inner fertile and towards the outer empty upper glume.
14. Transverse section of flower in stage shown in fig. 11, indicating position of embryos, × 4.
15. Transverse section of flower in which three ovaries have developed, × 4.



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- . Maha-bodhi Society,—Journal, Vol. IV, No. 11.
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An Account of the Smithsonian Institution, its Origin, History, Objects and Achievements.

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KENYON, FREDERICK C. The Morphology and Classification of the Paurapoda, with notes on the Morphology of the Diplopoda. 8vo. Massachusetts, U. S. A., 1895.

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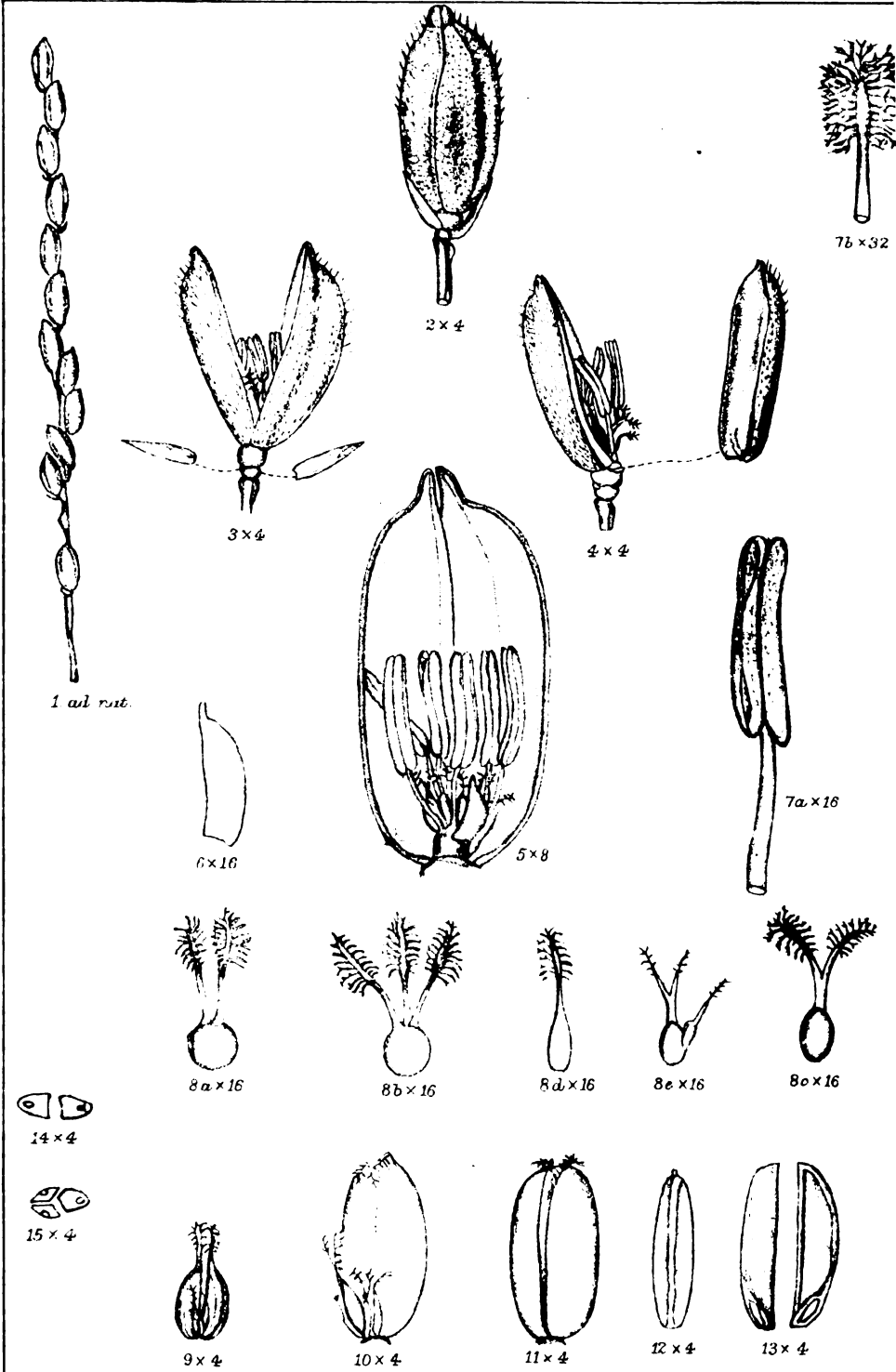
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D. Prain del.

"DOUBLE" RICE.

A. C. Mukerjee lit.



PROCEEDINGS  
OF THE  
ASIATIC SOCIETY OF BENGAL,  
FOR MAY, 1896.

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The Monthly General Meeting of the Asiatic Society of Bengal was held on Wednesday, the 6th May, 1896, at 9-15 P.M.

T. H. HOLLAND, ESQ., F. G. S., in the chair.

The following members were present :--

Dr. A. Alcock, F. Finn, Esq., W. A. Lee, Esq., R. D. Oldham, Esq.,  
Dr. D. Prain, Dr. G. Ranking, Bābu Yada Nāth Sā, Bābu Nagēndra  
Nātha Yasu, Dr. G. Watt.

Visitor :--Dr. C. R. M. Green.

The minutes of the last meeting were read and confirmed.

Twenty-six presentations were announced, details of which are given in the Library List appended.

The following gentlemen duly proposed and seconded at the last meeting of the Society were balloted for and elected Ordinary Members :—

Bābu Aghōr Candra Bhāduri.

Paṇḍit Mahēndranāth Vidyānidhi.

The SECRETARY reported the death of the following member :—

The Hon. Prince Sir Mahomed Jahan Qadr Wahid Ali Khān  
Bāhādur.

The following papers were read :—

1. *The Later Moghuls (1707-1803).*—By WILLIAM IRVINE, *Bengal Civil Service (Retired).*

The paper will be published in the *Journal*, Part I.

2. *The Mammalia of Tibet.*—By GRAHAM SANDBERG, B.A.,  
*Chaplain of Subathu.*

(ABSTRACT.)

The author first remarks upon, and endorses, the fact that the Mammalian Fauna of Tibet is singular.

He then notices its numerical profusion, especially in certain "herbivorous species, such as yak, antelope, wild ass, goat, and wild sheep," which occur in the elevated northern tracts of the country in immense herds.

In seeking for the causes of this numerical abundance he alludes to the fact—recorded by travellers—that the natural food-supply, in the form of coarse grasses, is surprisingly abundant at certain seasons of the year; and he also thinks that the fact that the Tibetans are Buddhist, and are therefore averse to the taking of life, is worthy of consideration. He does not, however, think it yet possible to explain how so many large herbivorous animals can subsist through the long and severe winter, and concludes that many must then perish of hunger.

The author next proceeds to enumerate the Mammalia found in Tibet, but he explains, first, that by Tibet he means not merely the elevated Tibetan plateau of Geologists, but also the lower outlying portions of the Indo-Chinese sub-region of the Oriental Region of Zoologists. He therefore includes in his enumeration "all forms occurring between the southern and northern barriers of the country, and between Ladak and the Szechuan-Yunnan frontier line." Within these limits he recognizes 146 species of Mammalia, not including Bats and domestic animals.

Incidentally the author gives the following interesting information with regard to the country commonly spoken of by Zoologists as Moupin:—

"It is a district or sub-prefecture lying between, lat. 31° 30' and 32° N., and between long. 102° 30' and 102° 50' E., and is so small a tract that to write 'this species inhabits Moupin' would be paralleled by stating of the English weasel 'it is found in Gloucestershire.' The name Moupin occurs in no map: the fact being that the Abbé David has told us the French form of the Chinese name of a Tibetan District. This Moupin, which should be Muping-sze, is a Chinese designation for Nangchhen Sbring-wa, commonly known to Tibetans as Drumba or Jumba.

"This Drumba, otherwise 'Moupin,' is occupied by a Sifan tribe, and is shut off from China by a lofty snow-capped range styled by Tibetans Gyalmo Mordo. The average elevation may be set at circa



8000 feet, and the climate is exceedingly damp, rain or snow falling, it seems, nearly every day. Though the Chinese are fast immigrating and burning the timber up in wasteful fashion, the country is still well-wooded and encradled amid lofty heights covered with trees and thicket."

3. *The Copper-plate Inscription of Nṛsiṃha-dēva II. of Orissa, dated Çaka, 1217—By NAGĒNDRA NĀTHA VASU.*

(Abstract.)

When the Kēndrapāḍā canal was being excavated, there was found in the village of Kēndu-pāṭna, about 20 feet under ground, a stone chest containing three sets of copper-plate grants each consisting of 7 plates. The grant under review, one of Nṛsiṃha-dēva II. and dated Çaka 1217, is one of these three sets. It is important as it contributes largely to the history of the Gaṅga Kings of Orissa. Several of the statements of the Temple Records of Orissa—(Mādala-pāñji) and of the historians who follow them, about those Gaṅga-Kings vary greatly from the accounts given in this grant. According to the former the great temple of Jagannātha was erected by king Ananṅa-bhīma, but the grant clearly states that though Ananṅa-bhīma built several temples, it was long before him that Cōḍa-guṇa-dēva had built this celebrated shrine. This and other notable facts which the inscription throws light upon, and which materially alter the History of Orissa, are dealt with at some length, in my article on the inscription to which I refer for details of great interest.

The paper will be published in fall, in the *Journal*, Part I.

4. *Notes on the Indian species of Vitis.—By G. KING, M.B., LL.D., C.I.E., F.R.S.*

The paper will be published in the *Journal*, Part II.

5. *The Gauhaṭi Copper-plate Grant of Indrapāla of Prāgjyōtiṣa in Assam.—By DR. A. F. R. HOENLE.*

(Abstract.)

Assamese copper-plate grants are rare. This is the third which has been made known. The first is the so-called Tējpur grant, which was published in 1840 in Volume IX of the Society's *Journal*. A third, the Nowgong grant, will shortly be published by Mr. E. A. Gait.

The Gauhaṭi grant belongs to the Pāla dynasty of Assam, the other two grants belong to the same dynasty, but a different one from the Pālas.

The members of the Assam Pālas mentioned in the grant are Brahma Pāla (*alias* Ratna Pāla), Purandara Pāla, and Indrapāla. The

grant was issued by the last mentioned. He immediately succeeded his grandfather Ratnā Pāla, his father Purandara apparently having died during Ratna's life-time. Ratna-pāla appears to have been the first of the Assamese Pālas. The names preceding his in the genealogical list are all mythical.

The grant is not dated, but its characters, which are old Bengali of the *kuṣṭhā* type, refer it to the early part of the 10th century A.D.

There is nothing to connect the Assamese Pālas with the great Pāla dynasty of Bihār and Bengal. The probabilities are against any connection. The two dynasties use different seals, and claim a different ancestry. At the same time it may be remembered that Dēvapāla of Behār is said to have conquered Assam, in the latter part of the 9th century, and Dharmapāla of Bihār is said to have settled a colony of Brāhmins there about the middle of the 9th century. Ratna-pāla of Assam would be a contemporary of Dēvapāla.

The grantee is a brāhman Dēcapāla, and the land granted to him is defined as situated near the hamlet of Kāsi, on the Digunmā river. The locality can no more be identified.

The paper will be published in full, in the *Journal*, Part I.

6. *Description of some New Indian Trees*.—By G. KING, M.B., LL.D., C.I.E., F.R.S.

The paper will be published in the *Journal*, Part II.

7. *Supplement to Thomas' Chronicle of the Pathan kings of Delhi*. No. VI.—By C. J. RODGERS, *Honorary Numismatist to the Government of India*.

The paper will be published in the *Journal*, Part I.

8. *A second series of New Orchids from Sikkim*.—By G. KING, M.B., LL.D., C.I.E., F.R.S., and R. PANTLING.

The paper will be published in the *Journal*, Part II.

9. *Coins of Nīmrōz*.—By C. J. RODGERS, *Honorary Numismatist to the Government of India*.

The paper will be published in the *Journal*, Part I.

10. *Noviciæ Indicæ, XII. Description of a New Genus of Orchidaceæ*.—By DR. D. PHAIN.

The paper will be published in the *Journal*, Part II.

11. *Rare Moghul coins*.—By C. J. RODGERS, *Honorary Numismatist to the Government of India*.

The paper will be published in the *Journal*, Part I.

12. *An account of the Deep Sea Crustacea dredged by the R. I. M. S. 'Investigator' during 1894-95.*—By SURGEON-CAPTAIN A. R. S. ANDERSON. The paper will be published in the *Journal*, Part II.

13. *Rare Kāshmir coins.*—By C. J. RODGERS, *Honorary Numismatist to the Government of India.* The paper will be published in the *Journal*, Part I.

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LIBRARY.

The following additions have been made to the Library since the meeting held in April last:—

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**MITRA, SARAT CHANDEA.** Notes from the Calcutta Zoological Gardens.  
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CARMICHAEL LIBRARY, BENARES.

Returns of the Rail-Borne Traffic of the Central Provinces during the  
quarter ending 31st December, 1895. Fcp. Nagpur, 1896.

CHIEF COMMISSIONER, CENTRAL PROVINCES.

List of Ancient Monuments in Bengal, revised and corrected up to 31st  
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Progress Report of the Archæological Survey of Western India for the  
months May 1894 to August 1895. Fcp. Bombay, 1895.

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Indian Antiquary, Vol. XXV, Part 308. 4to. Bombay, 1896.

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Statistical Atlas of India, 1895. Obl. Calcutta, 1895.

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**MICHE-SMITH, C.** Daily Meteorological Means of the Madras Obser-  
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Meteorological Tables of the St. Xavier's College Observatory for the  
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und 4.

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PROCEEDINGS  
OF THE  
ASIATIC SOCIETY OF BENGAL,  
FOR JUNE, 1896.

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The Monthly General Meeting of the Asiatic Society of Bengal was held on Wednesday, the 3rd June, 1896, at 9-15 P. M.

Frank Finn, Esq., B.A., in the chair.

The following members were present:—

Moulvi Abdul Kader, Moulvi Abdul Karim, Dr. A. W. Alcock, J. N. Dās-Gupta, Esq., Kumār Rāmēçvar Malliah, Bābu Pañcānana Mukerji, C. A. Oldham, Esq., Dr. D. Prain, Pañdit Satyavrata Samaçrami, Pañdit Haraprasād Çāstri.

Visitor:—Bābu Vahuvallabha Caṭṭopādhyāya.

The minutes of the last meeting were read and confirmed.

Nine presentations were announced, details of which are given in the Library List appended.

The following gentlemen are candidates for election at next meeting:—

G. W. Kuchler, Esq., proposed by C. Little, Esq., seconded by Dr. A. W. Alcock.

Rai Lakṣmi Çankar Miçra, Bāhādur, proposed by S. C. Laharry, Esq., seconded by Dr. G. A. Grierson.

The following gentlemen have expressed a wish to withdraw from the Society:—

Rai Bāhādur Rādhāvallabha Caudhuri.

R. B. McCabe, Esq.

The SECRETARY reported the death of the following member:—

O. G. Arthur, Esq.

The Chairman made the following announcement with regard to the Huxley memorial.

At an influential public meeting held in London on the 27th November last, His Grace the Duke of Devonshire in the Chair, it was proposed by Lord Kelvin, and seconded by Right Hon'ble A. J. Balfour:—

*That it is desirable to establish a memorial to the late  
Right Hon'ble Thomas Henry Huxley.*

It was then resolved, that the memorial do take the form of a statue, to be placed in the Museum of Natural History, and a medal in connection with the Royal College of Science, and that the surplus be devoted to the furtherance of biological science in some manner to be hereafter determined. And a Committee was then appointed to carry these resolutions into effect.

At a meeting of the Council of the Asiatic Society of Bengal, held in Calcutta on the 27th February last, it was decided to appoint a Local Committee, composed of the following members, to co-operate with the London Committee in promoting the objects of the above-quoted resolution:—

ALEXANDER PEDLER, 5, *Russell Street, Calcutta.*

G. KING, *Royal Botanic Garden, Calcutta.*

D. D. CUNNINGHAM, 9, *Loudon Street, Calcutta.*

MAHĒNDRALĀL SĪRKĀR, 51, *Sakareetollah Lane, Calcutta.*

T. H. HOLLAND, *Geological Survey of India, Calcutta.*

A. ALCOCK, *Indian Museum, Calcutta.*

The Committee has to report that the following subscriptions have been received:—

H. E. The Viceroy ...	...	...	...	...	Rs. 100
Dr. J. R. Adie ...	...	...	...	...	20
Calcutta Microscopical Society	...	...	...	...	100
Dr. D. D. Cunningham	...	...	...	...	50
Sir A. W. Croft ...	...	...	...	...	20
F. Finn, Esq. ...	...	...	...	...	85
J. S. Gamble, Esq. ...	...	...	...	...	16
Bābu Pratāpa Candra Ghoṣa	...	...	...	...	10
Surg.-Maj.-Genl. R. Harvey	...	...	...	...	100
T. H. Holland, Esq.	...	...	...	...	100
Dr. G. King	...	...	...	...	16
C. S. Middlemiss, Esq.	...	...	...	...	30
W. Mackintosh, Esq.	...	...	...	...	25
Dr. James Murray	...	...	...	...	32
Alex. Pedler, Esq. ...	...	...	...	...	50
Pandit Haraprasād Čāstri	...	...	...	...	10
W. J. Simons, Esq.	...	...	...	...	20

Carried over ... Rs. 784



			Brought forward	...	Rs. 784
Major R. C. Temple	...	...	...	...	„ 50
R. E. S. Thomas, Esq.	...	...	...	...	„ 50
			Total	...	Rs. 884

The equivalent in sterling, namely £ 51-14-3, has been remitted to the Honorary Secretary of the Home Committee.

Read a letter from the Secretary to the Government of the Punjab, dated 25th March, 1896, forwarding the following report by Mr. C. J. Rodgers, M.R.A.S., Honorary Numismatist to the Government of India, on the Sangla Tibba in the Gujranwala District, in connection with the question of quarrying that hill for the purpose of supplying ballast for the Wazirabad-Lyallpur Railway.

*Report.*

SIXTY-EIGHT and a half miles from Wazirabad, on the Wazirabad and Lyallpur Railway, the new railway station of Sangla is being made. It is about half a mile west from the Sangla Tibba, and between the station and the hill runs the Chenab Canal, having immediately on its west the new colony of Chahur or Jahur Fatlpuri, known formerly also as Bakh Andheri, which is close by a small rock, known as Mundapatura. The Tibba or Rock of Sangla is one of a series of rocks which crop up in the neighbourhood. About a mile and a half to the south are three others known as *Arti* or *Arna*, and about a mile and half to the south-east of *Arti* is a solitary one known as the *Gupha* or Cave-rock, because in it is a cave said to have been, in olden times, the residence of a thief and *adam khor*, or man-eater. All these rocks seem to be composed of iron-stone. Those at *Arti* are being used as quarries for ballast for the Railway. Nothing has been done to the Sangla rock or to the *Gupha*.

The Sangla rock is the highest and longest of all, rising, as it does, to the height of nearly 200 ft. above the plain. Of this plain, I ought to say, that it is to all appearance perfectly level, but with a uniform slope towards the south-west. To the east and north of the rock, there is a slight depression which, in one place, once had an embankment, probably artificial. The level plain comes nearly up to the rock. The rock rises abruptly on the north and west sides. Towards the east, there is a small tableland about 30 ft. high which lies between a spur of the northern part of the rock, and another from the centre of the main rock. Owing to the shaly nature of the rock the sides are covered all over with broken stones. These in three places are mixed with brick ends. At the top of the rock there is no area whatever on which buildings of any size could be erected, and in consequence,

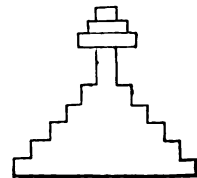
*there is not anywhere any sign of a building of any kind ever having been on the rock. There is not a chisel mark on any part. On the ridge stretching towards the east in the northern part of the rock, there are some modern foundations dug out, but they have never been built on. They are only for buildings about 8 ft. broad. There is a Trigonometrical Survey Station on the highest point. This is a circular erection, about 6 ft. in diameter and 3 ft. high. It is made of old bricks, and contains nearly all the old bricks to be found in the whole neighbourhood. One I measured was 15'' × 11'' × 2½''. The next largest bricks I saw were only half this size. On the small plateau below there are some heaps of brick ballast and perhaps three gari loads of brick ends. Here and there are signs of rough foundations of small buildings, rows of stone with the straight surface turned outwards. In no case did I see any superstructure on these rows. In no place are there two rows of stone or brick one on the top of the other. Were all the brick ends in the place to be collected, there would not be a truck load.*

After much persistent search I was rewarded by finding a broken stone image on the eastern lower plateau, and a corner-brick carved on the edge, amongst the debris to the north of the rock. The image is not made of Sangla stone, but of doab red sandstone. It is split in two pieces and has lost the left arm and the legs. The right hand holds a ball. The features are defaced but there is a tall crown on the head.

In several places on the plain at the foot of the rock broken pots are found *but they lie on the surface only. There is no depth of them anywhere.*

*On the rock itself* as there are no buildings nor traces of their having been any, so *there is no well or any source from which water could be obtained, and no tank in which it could be stored.*

To the north, however, about a quarter of a mile from the rock and close by the eastern bank of the canal is an old well made of large bricks. About 12 ft. down there is a curious ornamentation going round the well, made up of repetitions of the accompanying figure. *This well, the few big bricks, the carved brick, the broken image, and the broken pots scattered on the surface are the only signs of antiquity in the place.*



General Cunningham says that 4,000 bricks were taken to mark, and that probably 4,000 more are in the Survey Station on the hill top. If I were inclined to be extravagant I might say let us suppose that the whole of the brick ends about the place represent 12,000 more, then we should have

20,000 bricks which are not sufficient for a structure of any size and could never have been sufficient to surround a town built round the rock. No place exists near Sangla or in the far off neighbourhood to which bricks could have been removed in any quantity. In the new colony of Jahur all the buildings are of mud.

There were no mud houses in Sangla or its vicinity. No mud walls surrounded the place, for, mud houses and mud walls when thrown down leave unsightly heaps which can never be removed, especially in a country with so small a rainfall as the Bar has. There are no signs of such mounds. Even the small mound at Mundapatura is not one of this kind. It is a small projecting rock, and a heap of rocky debris.

*There is nothing now therefore of any antiquity in Sangla or its neighbourhood except the well.* This has been beautifully restored by the Engineers of the Canal by having its broken masonry courses replaced and a small parapet erected at the top. Its water is 79 ft. from the wall top in spite of the well being actually in the bank of the canal. *One well could have supplied but a small population with water.* The swamp or seasonal lake must have dried up very soon after the rains. It had been long quite dry when I visited it on the last day of October.

From all this it will be seen (1) *that Sangla may have been a small village near the hill or rock.* (2) *It may have had a small temple or a few houses of brick, but they were more probably of reeds.* (3) *The people used earthen vessels.* (4) *There were no large buildings or bazaars.* (5) *There were no fortifications.* (6) *There were no buildings of stone.*

We know that everything strange in Nature in India has been worshipped, and has had, and has now in these days of modern enlightenment, its resident faqirs who have their followers and dependents, and hence small communities exist in these places. The rocks at Sangla are a strange phenomenon. They must have attracted faqirs in olden times. Before the canal was open, however, there was not a house near the rock and the only ones now are those connected with the brick kiln and the Canal Chowki nearly a mile to the north of the hill.

Therefore my decision is that *there is nothing now on the rock or in its neighbourhood of any Historical importance whatever.* There is nothing either in the rock, for, it is not a rock with fissures or caverns. The stone of which it is composed may be used for ballast or for any other purpose for which it may be required.

There is a place called Sangala mentioned as having been besieged

by Alexander the Great in his invasion of the Punjab. This is what is said of it in Arrian's *Arrabasis*, Book V, Chapters XXII to XXIV. Chapter XXI tells us: "He himself, *i. e.*, Alexander, crossed the river *Hydraotes*" and "he was advancing into the country beyond the *Hydraotes*." (N. B.—The *Hydraotes* was the *RAVEE* on crossing which Alexander would be in the Bari Doab.)

#### CHAPTER XXII.

"Alexander meanwhile had learned that the Kathaians and other tribes of independent Indians were preparing to meet him in battle if he invaded their country, and were inviting the neighbouring tribes, which were independent like themselves, to co-operate with them. He learned also that *the city near which they meant to engage him was STRONGLY FORTIFIED, and was called SANGALA.*"....."Alexander, on receiving this intelligence, marched rapidly against the Kathaians, and, on the second day after he had left the river *Hydraotes*, arrived at a city named Piraprana....which surrendered on terms of capitulation. Alexander gave his troops rest the next day, and, ON THE THIRD DAY, advanced to Sangala where the Kathaians and the neighbouring tribes that had joined them were mustered BEFORE THE CITY and drawn up in battle order on a low hill which was not on all sides precipitous. They lay encamped behind their waggons, which, by encircling the hill in three rows, protected the camp with a triple barricade. Alexander, on perceiving the great number of the barbarians and the nature of the position they occupied, drew up his army in the order which seemed best suited to the circumstances, and at once despatched against them the horse archers just as they were, with orders to ride along and shoot at the Indians from a distance, so as not only to prevent them making a sortie before his own dispositions should be completed, but to wound them in their stronghold even before the battle began.

\* \* \* \* \*

#### CHAPTER XXIII.

\* \* "Yes, even from these waggons they were forcibly driven by the phalanx of infantry and even at the third row they no longer held ground, but fled with all the haste they could into the city, and shut themselves within its gates. Alexander that same day encamped with his infantry around the city, as far at least as the phalanx enabled him to surround it, for, *the wall was of such great extent that his camp could not completely environ it.* Opposite the part where the gap was left, and where also was a lake not far from the walls, he posted the cavalry all round the lake, as he knew it not to be deep, and at the same time anticipated, that the Indians, terrified by their previous

defeat, would abandon the city during the night. The event showed he had conjectured aright, for, about the second watch, the most of them dropped down from the wall, and came upon the outposts of the cavalry. The foremost of them were cut to pieces by the sentinels, but those in the rear, perceiving that the lake was guarded all round, withdrew into the city. Alexander now encompassed the city with a double stockade, except where the lake shut it in, and around the lake he posted guards to keep still stricter watch. *He resolved also to bring up the military engines against the place for battering down the walls.* Some deserters, however, came to him from the city and informed him that the Indians intended that very night to escape from the city by way of the lake, where the gap occurred in the stockade. So at that point he stationed Ptolemy, the son of Lagoo, with three divisions of the hypaspists, each 1,000 strong, all the Agriarians and a single line of archers."

#### CHAPTER XXIV.

\* \* Such were the directions he gave, and Ptolemy in that place collected as many as he could of the waggons which the enemy had left behind them in their flight, and placed them athwart so that the fugitives might imagine there were many obstacles to their escaping by night. He ordered the stakes which had been cut, but not fixed in the ground, to be formed into stockades at different points between the lake and the wall. \* \* About the fourth watch, the barbarians, in accordance with the information Alexander had received, OPENED THE GATES which fronted the lake, and rushed towards it at full speed. \* \* Ptolemy, with his men, fell upon them and killed them, one after another, as they struck out from the waggons. Upon this the Indians fled back once more to the city for refuge, and as many as 500 of them were slain in the retreat.

"Meanwhile Porus also arrived, bringing with him the remainder of his elephants, and a force of 5,000 Indians, and *the military engines which had been constructed by Alexander were now brought up to the wall.* But the Macedonians, before any part of it was battered down, took the city by storm, having *undermined the wall, WHICH WAS OF BRICK and planted ladders against it all round.* In the capture, 17,000 of the Indians were slaughtered, and more than 7,000 were captured together with 300 waggons and 500 horse men. The loss in Alexander's army was somewhat under 100 killed and 1,200 wounded." \* \* \* "He drew back to Sangala and *razed the city to the ground.*" \* \* \* "He himself advanced with his army to the river Hyphasis to conquer the Indians who dwelt beyond it." (N. B.—The Hyphasis was the Bias, so the Sangala of Alexander must have been in the Bari Doab.)

From the above, it is plain —

- (1) That Sangala was a strongly fortified city three days' march from the Ravi in the Bari Doab.
- (2) It was a large city with gates, so large that Alexander's army could not wholly encompass it.
- (3) The walls were so high, they needed to be battered down. They must have been therefore not only high but thick. Eventually they were undermined.
- (4) The walls were of brick. The city was razed to the ground.
- (5) The gap in the stockade was so large, it had to be guarded by more than 3,000 men.

Nothing whatever is said about the rock at Sangla. A small rock or hill is mentioned outside the town.

At Sangla, to-day, there is no sign whatever of extensive ruins such as must be wherever Sangala was. The historian places it in the Bari Doab and after its capture Alexander marched straight on the Bias.

From all this, I infer that Sangla Tibba has nothing whatever to do with the strongly fortified city, surrounded by a high and thick brick wall, besieged by Alexander the Great, taken by him, and razed to the ground, AND WHICH WAS SITUATED IN THE BARI DOAB.

Again, in "Buddhist Records of the Western World" compiled before 713 A.D., we read that New Sakala was  $3\frac{1}{2}$  miles to the north-east of the old town of Sakala. Both Sakalas were then about  $3\frac{1}{2}$  miles in circuit. The walls of old Sakala were thrown down, but the foundations were still firm and strong. This old Sakala had, some centuries before the visit of the Chinese traveller, been the capital of Mahirakula who had "established his authority in this town and ruled over India."

(Here I venture to observe that this part of the country, Sangla and its vicinity, used to be known as the Sandal Bar and was an impenetrable jungle.)

"In the old town of Sakala is a sangharama with about 100 priests."

\* \* \* "By the side of the convent is a stupa (tope) about 200 ft. high." \* \* \* "To the north-east of the sangharama,

about a mile, is a stupa about 200 ft. high, built by Asoka Raja." \*

\* \* \* "About  $1\frac{2}{3}$  miles to the north-east of the new capital, we come to a stupa of stone, about 200 ft. high, built by Asoka."

(Beal's Buddhist Records of the Western World, Volume I, page 165-172.)

General Cunningham makes Sangla Tibba, the Sangala of the Alexandrian invasion and the Sakala of the Buddhist Records. On this I have to remark :—

- (1) If Sangala and Sakala were the same, then the place had been in existence over 1,000 years when it was visited by the Chinaman. The foundations of its walls had stood thick and firm for 1,000 years. In that 1,000 years, there must have been a vast accumulation of sweepings and ashes and mud. The place was a large one, so that there must be even now where it stood, a very high mound. There is but the rock at Sangla.
- (2) There were three stupas of stone more than 200 ft. high. After 1,200 years, there must be signs of those stupas. We know that such buildings were sculptured. There is not a sign of any such buildings either in, or on, or near, Sangla, neither is there a trace of the New Sakala mentioned by the traveller.
- (3) Sakala was the capital of *Miharakula*, a man whose coins are very plentiful in some parts of the Punjab. But not a coin is said to have been ever found in Sangla. I hunted several hours in the bazaars of Hafizabad and could find no coins older than the reign of Sikandar Lodi.
- (4) The travels of the Chinaman say nothing about the rocks, the peculiar physical feature of the neighbourhood.

From all this, I infer that the absence of all walls and foundations from Sangla; the absence of all traces of stupas either inside or outside the place and its neighbourhood; the absence of ruins of a neighbouring New Sakala; the absence of coins; the non-mention of chief physical features of the place, seem to point out plainly that Sangla is not the Sakala of the Chinese traveller.

I have before shown that it is not the Sangala of Alexander's expedition.

Sangla is therefore stripped of all historical associations.

(For the discussion identifying Sangla Hill, with Sangala of the Greeks and Sakala of the Chinese traveller, see *Archæological Reports* by General Cunningham, Vol. II, page 192-200.)

The quotations from Arrian are from McCrindle's "Ancient India, its invasion by Alexander the Great," page 114-120.

The image and brick found by me will be deposited in the Lahore Museum, together with a ball, which may be of cast or native iron. This last was found by Mr. Eldridge, Assistant Engineer, Chenab Canal, in the Arti quarries. I obtained it from Balik Ram, Contractor of Railway ballast.

In conclusion, I have to tender my thanks to Messrs. Preston and Benton, Superintending and Executive Engineers, for all their courtesy

and assistance; also to Mr. Bremner of the Wazirabad and Lyallpur Railway. These gentlemen all take an intelligent interest in the history of the district through which their Canal and Railway pass.

Lalla Ram Surup, Sub-Overseer, did the work I set him well. There was not much for him to do, as the absence of antiquities rendered the survey of the place almost unnecessary. He made the accompanying map (Plate VI) from his survey. On it are shown the different points to which I have drawn attention.

The Secretary read the following letter:—

SABATHU: PUNJAB.

May 25th, 1896.

*The Editor: Journal, Asiatic Society of Bengal, Part I.*

Sir,

With reference to your note to Mr. Gait's paper on Ahom coins, in which you set forth the series employed in Tibet and Mongolia for compiling the Kalendar, I hope you will forgive a few remarks in the interests of accuracy. I would point out that the names of the members of each series in the Mongol language are by no means correctly given in your revision of Huc's list. In fact Huc's version has the spelling much nearer to original Mongol than that which you substitute on the authority of Dr. Waddell.

DENARY SERIES.—The Mongol for "Wood" is *Modon*, usually pronounced *Modo*; Huc gives *Moto*; your list *Mod*. "Fire" is always *Gál*; Huc gives *Gal*; your list *Kal*. "Earth" is *Shirogé*, usually pronounced *Shiré*; Huc gives *Ohéré* (i.e., *Shéré*); your list *Shora*. "Iron" is *Te-mür*; Huc gives *Te-mur*; your list *T'u-led*. (N.B. There is no such letter as *t* in Mongol). Finally, "Water" is *Usun*, sounded *Usu*; Huc gives *Ussu*; your list *Osu*.

DUODENARY SERIES.—The Mongol for "Monse" is *Khulughána*, sounded in North Mongolia *Kulguna* and in the South *Hulghána*; Huc gives *Khouloukhana* (i.e., the literary form almost exactly); your list *Hul-kan*. "Tiger" is *Bars*; Huc gives *Bará*; your list *Par* (N. B. There is no letter "P" in Mongol). "Hare" is *Tolai*; Huc gives *Tolé*; your list *T'us-lus* which is an impossible orthography in Mongol. "Dragon" is *Lu*; Huc gives *Lou*; your list *Lwu*! "Fowl" is *Takiya*, sounded *Takya*; Huc gives *Takia*; your list *T'a-ka*. "Dog" is *Nokhai* and "Pig" is *Khákhai*; Huc giving *Nokhé* and *Khakhé*; your list *No-has* and *Ka-has*.

Confirmation of the above-stated readings may be found in the works of Bobrovnikov, Castren, and I, J. Schmidt.



As Mr. Rockhill has observed, the much-maligned Huc, ever since he wrote his charming volumes on Tibet and Tartary, has been continually accused of errors, and then always found to have been correct after all. The more we learn of Tibet and Mongolia, the more is the marvellous accuracy of the geographical, philological, and general observations of that learned and adventurous Lazarist father made evident.

In the Tibetan list two mistakes occur. The words *lC'ag* "Ram," and *spRou* "Monkey," should be *Luk* and *Sprenu*.

I remain, Sir,  
Your obedient Servant,

GRAHAM SANDBERG.

*Chaplain of Sabathu.*

The Joint Philological Secretary Paṇḍita Haraprasād Čāstri exhibited three Archaeological photographs forwarded by Mr. W. Banks Gwyther, Esq., Under-Secretary to the Government of Bengal, Public Works Department with a note by Mr. Umeça Candra Vaṭavyāla, Officiating Magistrate, Baguḍā.

Photograph No. 1 belongs to an image found in a tank in the village of Durgāpur near Mahāsthāna in Baguḍā. It is a female figure probably of Tārā Devī one of the Bauddha Čaktis so much worshipped in Medæval India. It contains an inscription which is nothing else but the ordinary Confession of Buddhist faith. "*Ye dharmā hetuprabhavāḥ etc.*"

No. 2 belongs to an image discovered under a tree in the town of Baguḍā, of a Bodhisattva and a Čakti in an amatory condition sitting on a throne.

No. 3 belongs to an image which lay among a pretty large number of broken images, in the village of *Tilak*. It is also that of a Bauddha Čakti sitting on a throne supported by a tiger. She has four arms carrying a *gadā* or mace a *cakra* or discus, a *kumbha* or waterpot in three of her arms. The object in her fourth arms is indistinct.

Mr. Umeça Candra Vaṭavyāla has caused all the three images to be brought over to Baguḍā. They might, now, with profit, be brought to the Indian Museum.

The following papers were read:—

1. *Materials for a Carcinological Fauna of India, No. II. The Brachyura Oxystoma.*—By A. ALCOCK, M. B., C.M.Z.S., Superintendent of the Indian Museum.

The paper will be published in the *Journal*, Part II.

2. *Note on a curious tradition current in the Hutwa Raj.*—By ÇARAT CANDRA MITĀ, M.A., B.L., *Communicated by the Joint Philological Secretary.*

The paper will be published in the *Journal*, Part III.

3. *Materials for a flora of the Malayan Peninsula, No. VIII.*—By G. KING, M.B., LL.D., F.R.S., C.I.E., *Superintendent of the Royal Botanic Garden, Calcutta.*

The paper will be published in the *Journal*, Part II.

4. *Contributions to Bengali Vernacular Lexicography.*—By PRATĀPA CANDRA GHOṢA, B.A.

The paper will be published in the *Journal*, Part I.

5. *On Croftia a new Indo-Chinese genus of Scitaminsae.*—By G. KING and D. PRAIN.

The paper will be published in the *Journal*, Part II.

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### LIBRARY.

The following additions have been made to the Library since the meeting held in May last:—

### TRANSACTIONS, PROCEEDINGS AND JOURNALS,

*presented by the respective Societies and Editors.*

Baltimore. Johns Hopkins University,—Circulars, Vol. XV, No. 124.

Batavia. Bataviaasch Genootschap van Kunsten en Wetenschappen,—Notulen, Deel XXXIII, Afleveringen 3 en 4.

———. ————. Tijdschrift voor Indische Taal-, Land- en Volkenkunde, Deel XXXIX, Aflevering 2.

———. Koninklijke Natuurkundige Vereeniging in Nederl.-Indië,—Natuurkundig Tijdschrift voor Nederlandsch-Indië, Deel LV.

Berlin. Berliner Entomologische Zeitschrift,—Band XXXVII, Heft 4; XXXVIII, 1 und 2.

Birmingham. Birmingham Natural History and Philosophical Society,—Proceedings, Vol. IX, Part 2.

- Bombay.** The Indian Antiquary,—Vol. XXV, Part 309.
- Brisbane.** Royal Society of Queensland,—Proceedings, Vol. XI, Part 2.
- Calcutta.** Indian Engineering,—Vol. XIX, Nos. 19-22.
- . The Indian Lancet,—Vol. VII, Nos. 10 and 11.
- . Maha-bodhi Society,—Journal, Vol. IV, No. 12.
- . Microscopical Society of Calcutta,—Bulletin, Vol. V, Nos. 2 and 3.
- . Photographic Society of India,—Journal, Vol. IX, No. 5.
- Copenhagen.** K ngelige Nordiske Oldskrift-Selskab,—Aarboger, II. R ekke, Bind X, Heft 4; XI, 1.
- . ———. M moires,—Nouvelle S rie, 1895.
- Leige.** La Soci t  G ologique de Belgique,—Annales, Tome XXIII, No. 1
- Leipzig.** Die K niglich S chsische Gesellschaft der Wissenschaften zu Leipzig,—Abhandlungen, Phil. hist. Classe, Band XVII, Nrn. 2 und 3.
- . ———. Berichte  ber die Verhandlungen, Math.-phys. Classe, Nr. 1, 1896.
- London.** The Academy,—Nos. 1251-54.
- . The Athen um,—Nos. 3574-77.
- . Nature,—Vol. LIII, Nos. 1382-85.
- . Numismatic Circular,—Vol. IV, No. 42.
- . Royal Astronomical Society,—Monthly Notices, Vol. LVI, No. 7.
- . Royal Geographical Society,—Geographical Journal, Vol. VII, No. 5.
- . Zoological Society of London,—Proceedings, Part 4, 1895.
- . ———. Transactions, Vol. XIV, Part I.
- Madras.** Madras Journal of Literature and Science, 1889-94.
- Manchester.** Manchester Literary and Philosophical Society,—Memoirs and Proceedings, Fourth Series, Vol. X, No. 2.
- Moscow.** La Soci t  Imp riale des Naturalistes de Moscou,—Bulletin, No. 4, 1895.
- Mussoorie.** The Indian Forester,—Vol. XXII, No. 4.
- Paris.** La Soci t  Philomathique de Paris,—Comptes Rendus Sommaire des S ances, Nos. 11-13, 1896.
- Philadelphia.** American Academy of Political and Social Science,—Annals, Vol. VII, Nos. 3; and Supplement.
- Rome.** Rivista Geografica Italiana,—Aprile, 1896.
- . La Societ  degli Spettroscopisti Italiani,—Memorie, Vol. XXV, Nos. 2-4.

- Schaffhausen. La Société Entomologique Suisse,—Bulletin, Tome IX, No. 7.
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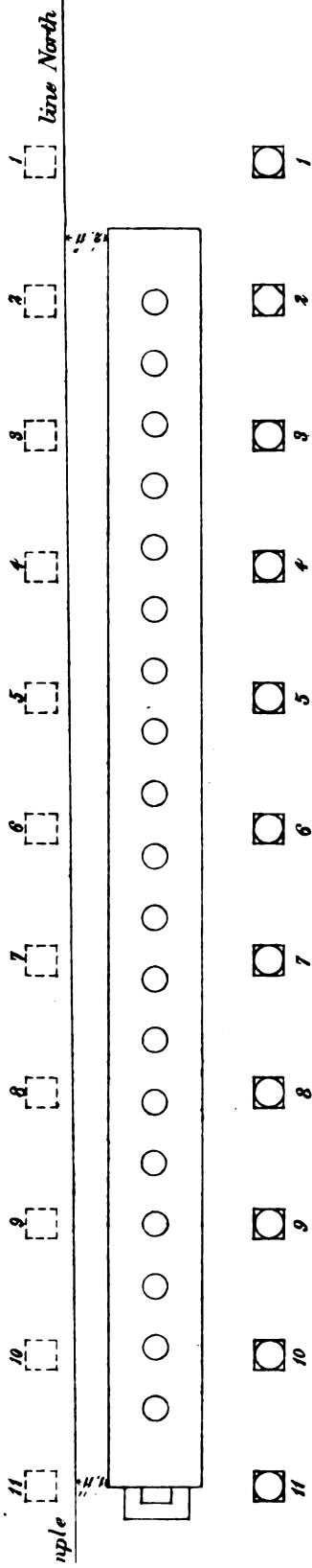
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S

Fig. 1.



N

# PLAN OF BUDDHA'S WALK

14-11-95.  
B B BANERJEE,  
Custodian.

Scale 1 Inch = 8 Feet.







Fig. 2. GENERAL CUNNINGHAM'S RUBBINGS IN HIS MAHĀBODHI.



On N<sup>o</sup> 1.



On N<sup>o</sup> 5.



On N<sup>o</sup> 7.

Fig. 3. RUBBINGS OF LETTERS NOW EXISTING ON THE PILLAR-BASES IN SITU.



Fig. 7. RUBBING OF THE REMAINS OF THE LETTER A ON THE PILLAR SHAFT.



Fig. 4.

*Plan.*

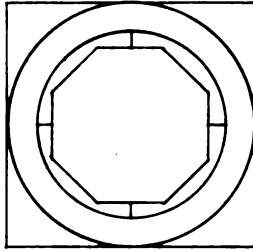
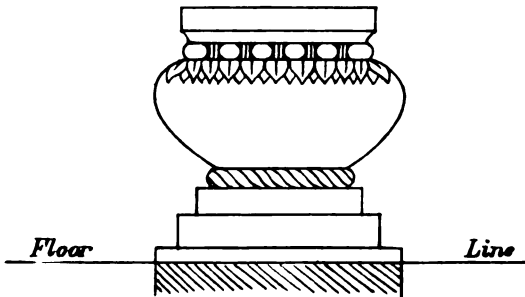


Fig. 5.

*Elevation.*



**N. W. PILLAR BASE OF BUDDHA'S WALK**

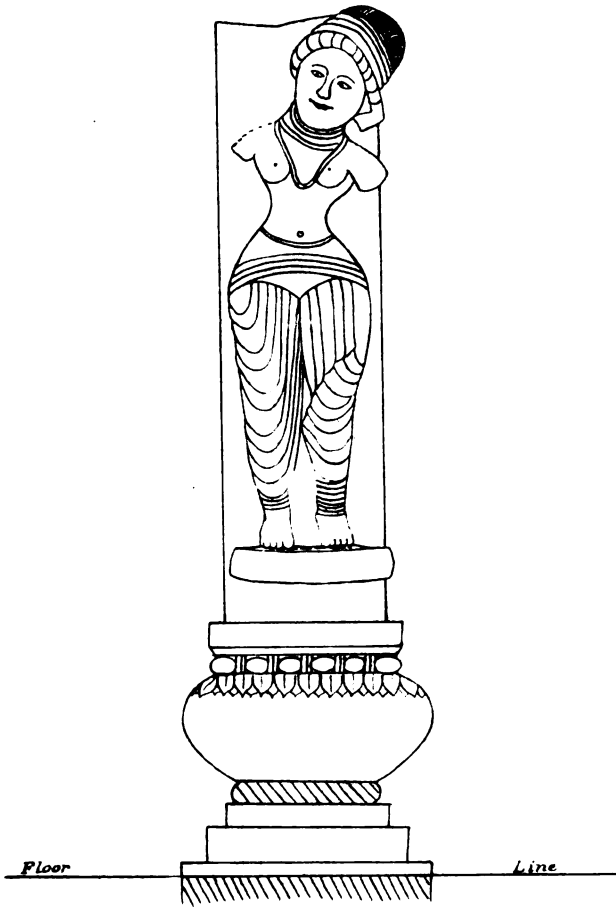
*Scale 1 Inch = 1 Foot.*

**B. B. BANERJEE,**  
*14-11-95. Custodian.*

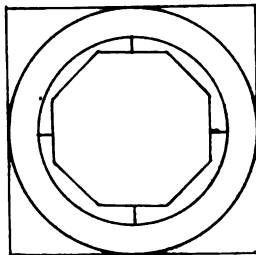


Fig. 6.

*Front Elevation.*



*Plan.*



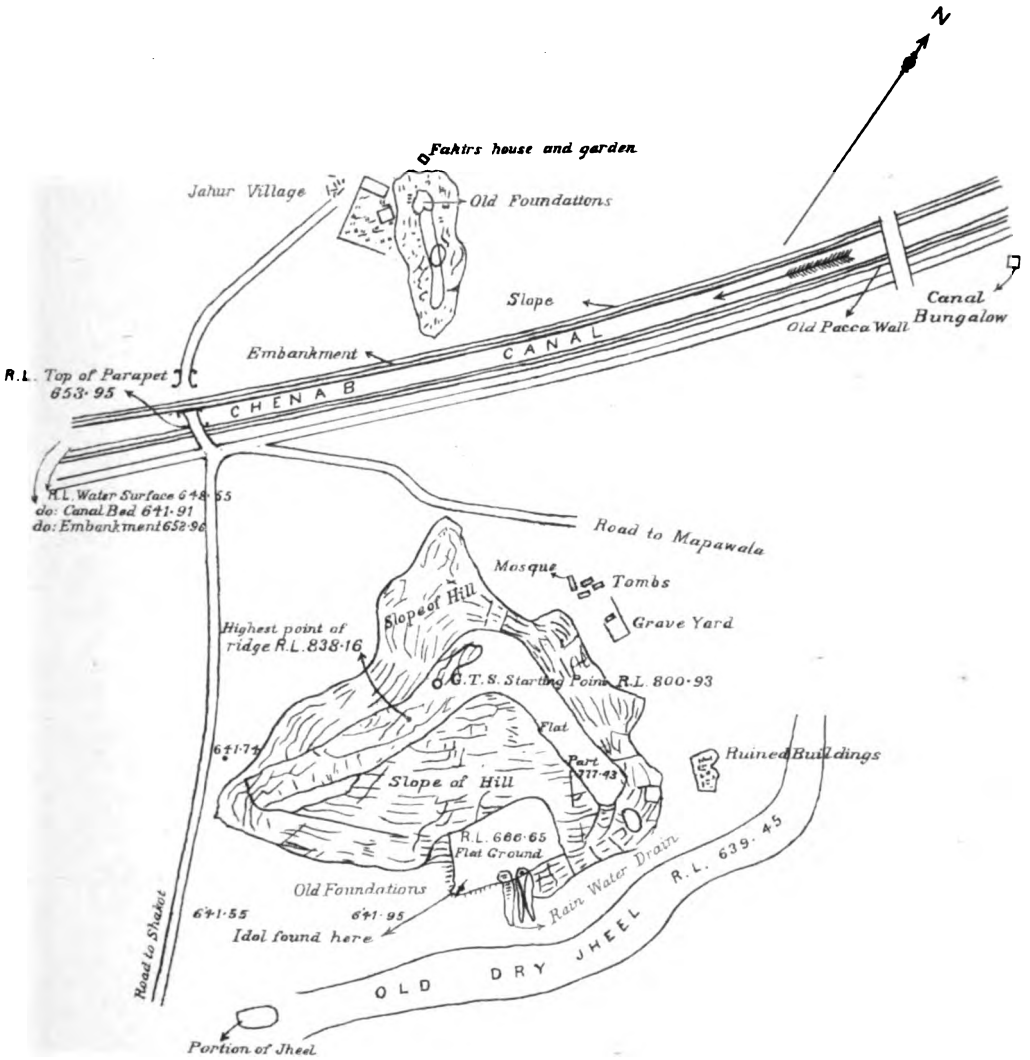
B. B. BANERJEE,  
*Custodian.*

14-11-95

N. W. PILLAR OF BUDDHA'S WALK

*Scale 1 Inch = 1 Foot.*





### SURVEY ROUND SANGLA HILL

Scale 600 Ft. = 1 Inch.





PROCEEDINGS  
OF THE  
ASIATIC SOCIETY OF BENGAL,  
FOR JULY, 1896.

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The Monthly General Meeting of the Asiatic Society of Bengal was held on Wednesday, the 1st July, 1896, at 9-15 P. M.

Dr. A. F. R. Hoernle, Vice-President, in the chair.

The following members were present:—

Moulvi Abdul Kader, Dr. A. W. Alcock, F. Finn, Esq., T. H. Holland, Esq., C. Little, Esq., C. R. Wilson, Esq.

The minutes of the last meeting were read and confirmed.

Ten presentations were announced, details of which are given in the Library List appended.

The following gentlemen duly proposed and seconded at the last Meeting of the Society were ballotted for and elected Ordinary Members:—

G. W. Kuchler, Esq.

Rai Lakṣmi Çaukar Miçra, Bāhādur.

The following gentleman is a candidate for election at the next Meeting.

Thomas M. Munro, Esq., proposed by C. R. Wilson, Esq., seconded by Col. J. Waterhouse.

The SECRETARY reported the death of the following member:—

Sir Sardar Attar Singh, Bahadur.

The following is a rough draft of the programme of the proceedings of the Eleventh Meeting of the International Congress of Orientalists to be held at Paris from the 5th to the 12th September, 1897 :—

**ELEVENTH MEETING**  
OF THE  
**INTERNATIONAL CONGRESS OF ORIENTALISTS.**  
PARIS, 5th–12th SEPTEMBER, 1897.

SIR,

The Oriental Scholars who assembled at Geneva in September, 1894, unanimously decided that the next Congress should be held at Paris, during the year 1897.

The French Orientalists have now completed the preliminary arrangements for carrying on the impetus originally received some twenty years ago by Oriental Philology, History and Archæology. The date of the ensuing Congress has been fixed, the various sections have been constituted, and the rough draft of the programme of the proceedings which they propose to adopt, after obtaining the consent of their Colleagues in Europe, America, and the East, has been prepared.

Our Colleagues have decided to arrange for the Congress to last from the 5th to the 12th September, 1897, and you will find in the appended prospectus, the list of the sections, in which it will give them great pleasure to see every scholar to whom this invitation may be addressed inscribe his name.

I have, &c.,

CHARLES SCHEFER,

*President.*

PARIS, *May* , 1896.

A subsequent notice will issue showing the concessions which will be granted to Oriental Scholars by the various Railway Companies, and also the programme for each day of their stay in Paris.

Mr. ERNEST LEROUX, has been appointed Treasurer and Publisher of the Congress.

It has been decided that the subscription shall be twenty Francs (about sixteen shillings and eight pence, say Rupees fifteen.)

**INTERNATIONAL CONGRESS OF ORIENTALISTS.**

XITH SESSION,—PARIS, SEPTEMBRE, 1897.

Protector of the Congress.

M. LE PRÉSIDENT DE LA RÉPUBLIQUE.

## STANDING COMMITTEE.

*President:* M. Charles Schefer, Membre de l'Institut, Administrateur de l'École des Langues Orientales vivantes, rue de Lille, 2.

*Vice-President:* M. Barbier de Meynard, Membre de l'Institut, Président de la Société Asiatique. Professeur au Collège de France, boulevard de Magenta, 18.

*Secretaries:* MM. Maspero, Membre de l'Institut, Professeur au Collège de France, avenue de l'Observatoire, 24.

Henri Cordier, Vice-Président de la Commission Centrale de la Société de Géographie, Professeur à l'École des Langues Orientales vivantes, place Vintimille, 3.

*Members:* MM. E. Aymonier, Directeur de l'École Coloniale, rue du Général Foy, 46.

Em. Guimet, Directeur du Musée Guimet, place d'Iéna.

Jules Oppert, de l'Institut, Professeur au Collège de France, rue de Sfax, 2.

G. Schlumberger, de l'Institut, avenue d'Antin, 27.

Em. Senart, de l'Institut, rue François I<sup>er</sup>, 18.

Marquis De Vogüé, de l'Institut, rue Fabert, 2.

*Treasurer and Publisher of the Congress:* M. Ernest Leroux, rue Bonaparte, 28.

## GENERAL ORGANIZING COMMITTEE.

## FIRST SECTION.

*Languages and Archæology of Aryan Countries.*

(a.) Languages and Archæology of India.

MM. Barth, Bréal, Senart, Vinson.

*Secretary:* M. Sylvain Lévi.

(b.) Iran:

MM. Carrière, Dieulafoy, Drouin, Blochet.

*Secretary:* M. Meillet.

(c.) Linguistics:

MM. Bréal, V. Henry, Ed. Specht.

*Secretary:* M. Louis Duvau.

## SECOND SECTION.

*Languages and Archæology of the Far East.*

## (a.) China and Japan.

MM. Cordier, Devéria, Guimet, De Rosny, Ed. Specht.

*Secretary* : M. Ed. Chavannes.

## (b.) Indo-China, Malaya et Polynesia :

MM. Aymonier, Bonet, Cordier, Marre.

*Secretary* : M. P. Lefèvre-Pontalis.

## THIRD SECTION.

*Musalman Languages and Archæology.*

MM. Barbier De Meynard, Derenbourg, Houdas, Schefer.

*Secretary* : M. Casanova.

## FOURTH SECTION.

*Semitic Languages and Archæology.*

## (a.) Aramæan, Hebrew, Phœnician, Ethiopian :

MM. Ph. Berger, Rubens Duval, Marquis De Vogüé.

*Secretary* : M. L'Abbé Chabot.

## (b.) Assyria :

MM. Heuzey, J. Oppert, L'Abbé Quentin, Thureau-Dangin.

*Secretary* : R. P. Scheil.

## FIFTH SECTION.

*Egypt and the Languages of Africa.*

MM. Guieysse, Le Général Hanoteau, Lefébure, Maspero, Pierret.

*Secretaries* : MM. René Basset et Moret.

## SIXTH SECTION.

*The East, Greece.—Relations of Hellenism with the East,—Byzantium.*

MM. D. Bikélas, E. Legrand, G. Schlumberger.

*Secretaries* : MM. Jean Psichari et Théodore Reinach.

## SEVENTH SECTION.

*Ethnography, Folk-lore of the East.*

MM. Le Prince Roland Bonaparte, Le Docteur E.-T. Hamy, Girard De Rialle.

*Secretary* : M. F. Grenard.

The following papers were read :—

1. *Buddhist Sūtras Inscribed on Bricks found at Gōpālpur in the Gōrakhpur District.*—By VINCENT A. SMITH, *Indian Civil Service,* and WILLIAM HOEY, D. LITT., *Indian Civil Service.* (With Plate VII.)

The tract of country south of Gōrakhpur lying between the Amī, Kuāna, and Ghāgra rivers is singularly rich in ancient sites, which have as yet received very slight examination.

One of the most ancient of these sites is marked by the village Gōpālpur, which is situated about two miles west of the bazaar known as Gōla, a short distance from the northern bank of the Ghāgra, and about twenty-eight miles almost due south of Gōrakhpur. See the map, Plate VII.

The largest mound north-west of the village is known as Kōpgarh or Kōpwā Dīh. The horseshoe shaped sheet of water called Barkā, or Barjitā Tāl, encloses another mound, which has the curious name of Mañjhratiyā Dīh, or 'the midnight mound.'

Somewhere in these ruins a hoard of twenty gold Gupta coins was found in July 1854, which included seven specimens of the coinage of Chandra Gupta II. (*circa* A.D. 400).<sup>1</sup> At a later date an indigo planter is said to have obtained a pot of cowries in Kōpwā Dīh, and the curious little terracotta plaque herewith sent (see Plate VII) was obtained by Dr. Hoey from the same place. The ruins also yield great earthen vessels, pestles, and other utensils of terracotta, and numerous specimens of spindle whorls (*ṭikri*). Small stone stools (*cauki*), of which Dr. Hoey possesses a specimen, frequently turn up, and indicate that the buildings included a Buddhist monastery. These stools, which are commonly from twelve to fifteen inches long, and six inches high, with four small feet, are found at many Buddhist sites, and were probably used by the monks to stand on when bathing.<sup>2</sup>

A small temple east of the village and an adjoining tank preserve a reminiscence of Buddhism in the name Dharm Dēhi. Though the temple in its existing form is modern, it is built partly of ancient materials. Moulded terracotta or brick ornaments, belonging to an older building, are inserted in the walls.

Folklore of the usual kind has grown up around the ruins, which are supposed by the villagers to mark the site of the fort and city of a Bhar Rājā. They are haunted by two spirits, one male, and the other female. The male deity is Bhāisāsūr, the buffalo demon, and is appeased by offerings of oilcake and chopped straw. The female spirit is simply called Dēi, and is fed with sweetened rice cooked in milk.

<sup>1</sup> Mr. Thomas in *J. A. S. B.*, xxiv. (1855), p. 499, and V. A. Smith in *J. A. S. B.*, Vol. LIII, Pt. I. (1884), p. 152.

<sup>2</sup> Cunningham, *Reports*, iii, 52; xi, 162; xvii, 4.

She is believed to be the ghost of a Brāhman girl buried alive in the foundations to protect a golden treasure.

A well-known myth is attached to the Barkā Tāl. Once upon a time, whenever any man came to the city, and wanted food and utensils in which to cook it, the *dharm naukā*, or 'boat of merit,' rose to the surface of the water, and supplied his needs with provisions and golden vessels. So long as the golden vessels were duly returned, the boat sank, and disappeared until again called for. But one day a covetous man stole the golden vessels, and since that day the mystic boat has been no more seen.<sup>1</sup>

Some months ago the local zemindar, who was building indigo vats, employed men to collect all the loose bricks which they could find. When the surface supply failed, the workmen began to dig in the Mañjhratiyā mound, and coming to a masonry floor, they broke into a chamber below, and extracted a number of bricks. Paṇḍit Rāmgharib Caubē, who is a resident of Gōpālpur, noticed that one of the bricks so extracted was inscribed, and, having obtained it from the workmen, sent it to Mr. V. A. Smith.

Shortly afterwards (in January 1896) Dr. Hoey visited the spot, and succeeded in recovering the other inscribed bricks now submitted.

Dr. Hoey is of opinion that the masonry floor broken through by the labourers belonged to some comparatively modern building erected on the mound. He caused the hole to be re-opened and found that the inscribed bricks had been taken out of a small chamber about eight feet square and about eight feet below the surface, which was built of huge bricks, about a foot and a half long, and some three inches thick. The inscribed bricks are said to have rested on a sort of pedestal, or *vēdi*, made of brick, which was destroyed for the sake of the material. On a ledge in the chamber Dr. Hoey himself found a small earthen-ware saucer containing eleven copper coins, which had evidently been undisturbed since they were deposited.

The coins belong to the reigns of the great Kuṣān kings, Hima Kadphises, Kanīṣka, and Huviṣka, and therefore range in date from about A.D. 40 to about A.D. 150, according to the chronology generally accepted. They are all of well-known types, and include examples of the three leading forms of obverse used by Huviṣka, namely the elephant-rider, the throned king, and the king squatted cross-legged. One coin belongs to the 'Cock and Bull' Mitra series associated with Ayōdhya. The obverse, with bull to left, and the legend *Ayu Mitrāsa* is distinct. The reverse, which should show the cock and palm-tree, is defaced.<sup>2</sup>

We now proceed to describe the bricks.

<sup>1</sup> A similar legend attaches to the Kawwal Dīh tank at Gōrakhpur.

<sup>2</sup> These *Ayu Mitrāsa* coins, which were described by Carlleyle for the first time in 1880 (*J. A. S. B.*, Pt. I, Vol. XLIX, p. 27), are ascribed by Cunningham (*Coins*

No. I, that sent in by Paṇḍit Rāmgharib Caubē, is about  $10\frac{1}{2}$  inches long, by  $4\frac{1}{2}$  broad, and one inch thick. Unluckily it was broken in transit, but, notwithstanding the fracture, very few letters have been lost. The characters are about quarter of an inch in height, and are inscribed on both sides of the brick, nine lines on the front, and ten on the back. The writing was evidently incised before the brick was baked. The moulding was roughly done, and the surface is consequently uneven, and the letters are often irregularly formed.

We have obtained a fairly satisfactory facsimile of the text of this brick by pencilling over a paper *estampage*, which is submitted herewith. In its present state the brick would not yield a clear photograph, but if it were soaked for a long time, and the letters very carefully cleared of mud, a tolerably distinct photograph might be obtained. One side of one of Dr. Hoey's bricks has thus been cleaned.

The bricks Nos. II and III are perfect, except for some minute chippings.

No. II measures  $11\frac{1}{2}$  by  $4\frac{3}{4}$  inches, and has twelve lines of writing on one side, and ten on the other.

No. III measures  $9\frac{1}{4}$  by  $4\frac{1}{2}$  inches and has twelve lines of writing on each side.

No. IV (fragments A, B, C) is in bad condition. It measured originally about 9 inches by 5, and had twelve lines of writing on one side, and six on the other.

No. V is a small fragment of a brick, the rest of which has been lost.

The fragments of Nos. IV and V were recovered by Dr. Hoey near the indigo vats, into which several of the inscribed bricks have probably been built. Others are believed to be still in the villagers' hands.

The discovery of these brick records seems to us to be of much interest and importance. So far as we are aware, no similar discovery has ever before been made in India, and it is startling to find the Indian Buddhists using brick, as the Assyrians did, to preserve long documents.

The characters of the inscriptions, which use throughout the tridentate form of unattached *y*, belong to the Northern alphabet of the third or fourth century. The coins associated with the bricks indicate that the earliest possible date should be assigned to the inscriptions.<sup>1</sup>

*Enc. I. p. 93, Pl. ix, 14, 15*) to Sūrya Mitra. It seems to us impossible to read the characters as *Sūrya*, although *Ayu* gives no sense. The characters for *A* and *S* are quite distinct.

<sup>1</sup> The inscriptions on bricks found at Shōrkōṭ in the Jhang district of the Pañjāb are merely masons' marks, notes to indicate the proper laying of the bricks. (Cunningham, *Reports*, v, 102.) Bricks inscribed with the name of *Qri Kumāra Gupta* have been found at Bhitari in the Ghāzīpur district (*ibid.* I, 97, Pl. xxx.)

The language is good grammatical Sanskrit prose. With the exception of the legends of the Gupta coins, inscriptions dating from the period between A.D. 250 and 400 are almost altogether lacking. The discovery now announced, therefore, helps to fill a considerable gap in Sanskrit palaeography and epigraphy.<sup>1</sup>

We are not prepared to offer complete transcripts and translations of these curious brick inscriptions, and must leave that task to professed scholars. But there is very little difficulty in deciphering most of the characters, and there is no doubt as to the general nature of the contents of the inscriptions. They all deal with Buddhist ontology, and specially with the doctrine of the twelve *nidānas*, or 'causes' which connect *Avidyā*, or Blind Ignorance, with *Jarā-marāṇa*, Decay and Death, and thus form the *Bhava-cakra*, or Cycle of Existence.

This ontological doctrine has recently been twice discussed and illustrated in the publications of this Society, and is, of course, familiar to all students of Buddhism.

Dr. Waddell, in a most valuable paper, has shown that the so-called Zodiac in the cave-paintings at Ajantā is really a pictorial representation of the Cycle of Existence, practically identical with the pictures now commonly used by the Lamas of Tibet.<sup>2</sup>

Paṇḍit Hari Mōhan Vidyābhūṣan has published a Sanskrit text and English translation of the *Bhava-cakra Sūtra* in eleven *ślōkas*, forming the 27th *Pallava* of the *Avadāna Kalpalatā*, entitled *Pratītya Samutpāda Avadāna*, the work of the poet Kṣēmēndra.<sup>3</sup> This metrical exposition of the doctrine by Kṣēmēndra is practically identical in substance with the prose version given on brick No. I. The inscription on that brick is a complete *Sūtra*, and begins with the well-known formula, *Evam mayā śrutam ēkasmin samayē Bhagavān Ārāvastīyān*, etc.—“Thus have I heard—Once upon a time, Bhagavān was dwelling at Ārāvastī in the Jētavana, in the garden of Anāthapiṇḍada, etc.”

The other bricks (Nos. II–V) do not seem to contain the opening *sūtra* formula, though all treat of the *nidānas*.

Bricks Nos. II–V are the property of Dr. Hoey, who proposes to present No. II, to the British Museum, and No. III, to the Lucknow Provincial Museum. No. I is the property of Mr. V. A. Smith, who gave a high price for it, and reserves the question of its disposal. Nos. IV and V, will be disposed of under Dr. Hoey's instructions.

<sup>1</sup> E. Senart, *Indian Antiquary for July 1892*, Vol. XXI, p. 209: and V. A. Smith *Observations on the Gupta Coinage*, *J. R. A. S.* for 1893, p. 90.

<sup>2</sup> *The Buddhist Pictorial Wheel of Life*. By L. A. Waddell, M. B. With three plates. (*J. A. S. B.* for 1892, Part I, p. 133)

<sup>3</sup> *The Buddhist Bhavacakra* (Cycle of Existence). By Hari Mōhan Vidyābhūṣan. (*Proc. A. S. B.* for 1892, p. 98.)



TRANSLITERATION OF INSCRIPTION ON BRICK NO. I.<sup>1</sup>

## Front.

- 1 एवं मया श्रुतमेकस्मिन्समये भगवाञ्छ्रावस्थ्यां विहरति जेतवने
- 2 नायपिच्छदस्थारामे तत्र भगवान्भिक्षुनामन्वयति स्म धर्माणां वो मि
- 3 क्षव आचर्यं च देशयिष्याम्यपचयं च तच्छृणुत[साधचामुखच]
- 4 मनसिकुरुत भाषिष्ये धर्माणामाचयः कतमः यदुतास्मिन्सती
- 5 दं भवत्यस्योत्पादादिदमुत्पद्यते यदुता विद्याप्रत्ययाः संस्काराः संस्कार
- 6 प्रत्ययं विज्ञानं विज्ञानप्रत्ययं नामरूपं नामरूपप्रत्यय स्पर्शः
- 7 स्पर्शप्रत्यया वेद[ना] वेदनाप्रत्यया ढ्रष्या ढ्रष्याप्रत्ययबमुषादानमु
- 8 पादानप्रत्ययो भवः भवप्रत्यया जातिर्जातिप्रत्यया जरामरय
- 9 श्लोकपरिदेवदुःखादेर्मनस्योपायासाः संभवत्येवमस्य महतो

## BACK.

- 1 दुःखस्सन्दस्य समुदायो भवत्ययमुच्यते धर्माणामाचयः धर्माणा
- 2 मपचयः कतमः यदुता विद्यानिरोधात्संस्कारनिरोधः संस्कारनिरोधात्वि
- 3 ज्ञाननिरोधः विज्ञाननिरोधान्नामरूपनिरोधः नामरूपनिरोधात्षडावतन
- 4 निरोधः षडावतननिरोधाद्देवनिरोधः वेदनिरोधात्तृष्यानिरोधः
- 5 ढ्रष्यानिरोधादुपादाननिरोधः उपादाननिरोधाद्भवनिरोधः भवनिरोधाज्जाति
- 6 निरोधः जातिनिरोधाज्जरामरयश्लोकपरिदेवदुःखादेर्मनस्योपायासा
- 7 निबन्धन्येवमस्य [केपम]स्य महतो दुःखस्सन्दस्य निरोधो भवत्ययमुच्यते
- 8 धर्माणामपचयः धर्माणां वो भिक्षव आचर्यं च देशयिष्याम्यपचयं च
- 9 इति मे यदुक्तमिदमेतत्प्रत्यक्तमिदमवोचद्भगवानात्तम[नस . स्ते]
- 10 भिक्षवो भगवतो भाषितम[स्य] नन्व[ः] ।

2. *Supplementary List of the Fishes of India with Descriptions of some new species.*—By A. ALCOCK, M.B., C.M.Z.S., Superintendent of the Indian Museum.

3. *Noviciæ Indicæ, XIII. Further notes on Indian Convolvulacæ.*—By DR. D. PRAIN.

4. *Report on some Paguridæ Collected by the R. I. M. S., "Investigator."*—By J. R. HENDERSON, M.B., F.L.S., Communicated by the Natural History Secretary.

5. *Noviciæ Indicæ, XIV. Some additional Solanacæ.*—By DR. D. PRAIN.

The paper will be published in the *Journal*, Part II.

<sup>1</sup> [Compared with the original and revised by Dr. A. F. Rudolf Hoernele. The aksharas enclosed in brackets are damaged and not fully legible.]

## LIBRARY,

The following additions have been made to the Library since the meeting held in June last:—

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*presented by the respective Societies and Editors.*

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 ———. Indian Antiquary,—March, 1896.
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 ———. Maha-bodhi Society,—Journal, Vol. V, No. 3.  
 ———. Photographic Society of India,—Journal, Vol. IX, No. 6.
- The Hague.** Koninklijk Instituut voor de Taal,—Land-en Volkenkunde van Nederlandsch Indië,—Naamlijst der Leden op 1st April, 1896.
- Helsingfors.** Finska Vetenskaps,—Societetens,—Ofversigt, XXVII.
- Leipzig.** Die Deutsche Morgenländische Gesellschaft,—Zeitschrift, Band L, Heft 1.  
 ———. Die Königl. Sächsische Gesellschaft der Wissenschaften,—Abhandlungen, Band XVII, No. 4.
- London.** The Academy,—Nos. 1255-58.  
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DAS, SHYAM SUNDER. The Nagari Character. 8vo. Benares, 1896.  
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SRIMATI SUNDARI BĀLĀ ROY.

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———. Indian Medical Gazette,—Vol. XXXI, No. 6.

Geneva. Archives des Sciences Physiques et Naturelles, 15th Mai, 1896.

Leipzig. Annalen der Physik und Chemie,—Band LVIII, Heft 1.

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BALL, V. Travels in India by Jean Baptiste Tavernier. Vols. I. and II. 8vo. London, 1889.

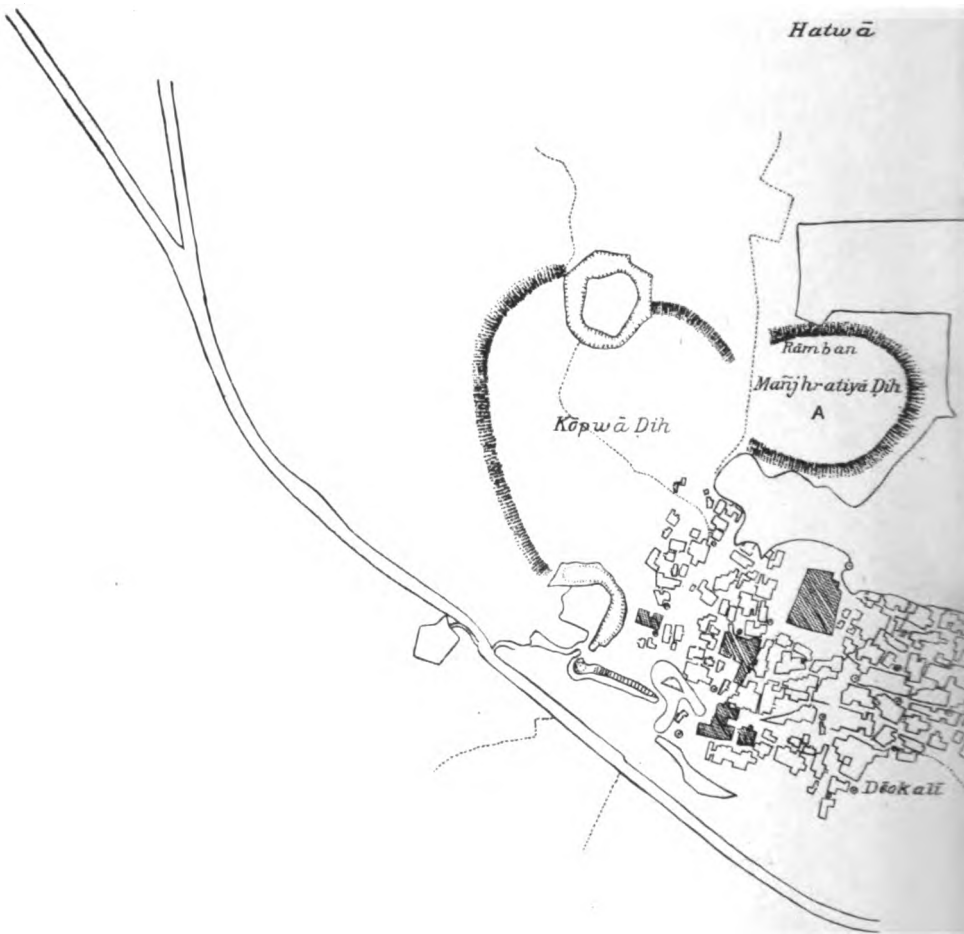
ROUSE, W. H. D. The Jataka, Vol. II. 8vo. Cambridge, 1895.

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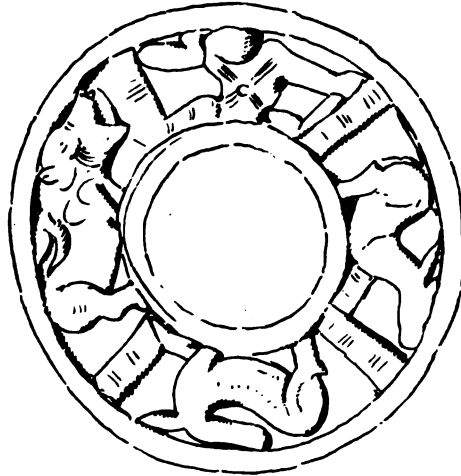


# MAP OF GŌPĀLPUR

Scale 48 inches to one Mile.



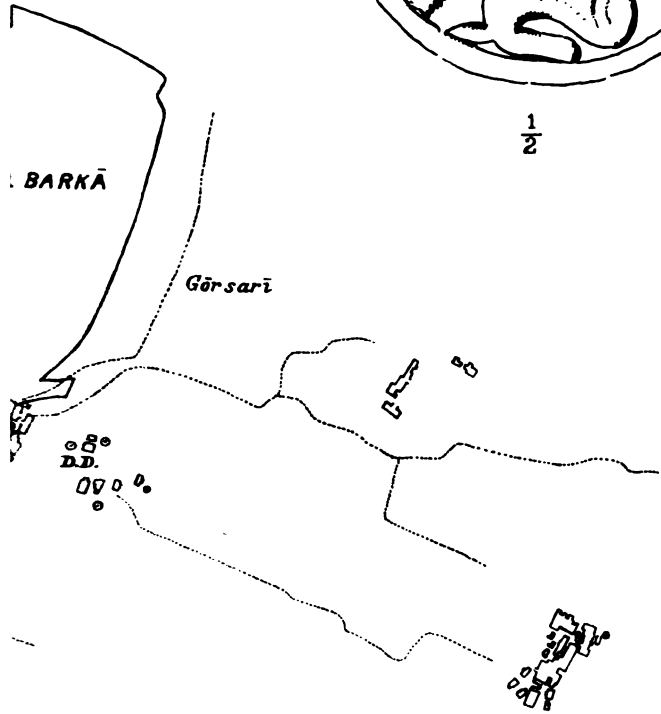
Terracotta Plaque.



*Abrōs*

$\frac{1}{2}$

*Ghōralōtarī*



*Rānīpur*

*A. Place where bricks were found.*

*D.D. Dharma Dāhī.*





**PROCEEDINGS**  
OF THE  
**ASIATIC SOCIETY OF BENGAL,**  
FOR AUGUST, 1896.

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The Monthly General Meeting of the Asiatic Society of Bengal was held on Wednesday, the 5th August, 1896, at 9-15 P.M.

Dr. A. F. R. Hoernle, Vice-President, in the chair.

The following members were present:—

Manlvi Abdul Wali, T. H. Holland, Esq., M. A. Kader, Esq., W. A. Lee, Esq., Dr. F. P. Maynard, L. de Nicéville, Esq., Pandit Haraprasād Cāstri, Dr. G. Watt, C. R. Wilson, Esq.,

Visitor:—Manlvi Abdul Azeez Khan.

The minutes of the last meeting were read and confirmed.

Fifty-one presentations were announced, details of which are given in the Library List appended.

The following gentleman duly proposed and seconded at the last Meeting of the Society was balloted for and elected an Ordinary Member:—

Thomas M. Munro, Esq.

The following gentlemen are candidates for election at the next Meeting:—

Dr. V. S. Balasundra Mudaliar, Medical Officer, Channagiri, Shimoga District, proposed by Surgeon-Lieut.-Col. G. Ranking, seconded by C. R. Wilson, Esq.

H. F. Samman, Esq., I.C.S., Nowgong, Assam, proposed by L. de Nicéville, Esq., seconded by A. Pedler, Esq.

E. M. Konstam, Esq., I.C.S., proposed by the Hon. Mr. Justice Amir Ali, seconded by C. R. Wilson, Esq.

Babu Çyāmdās Mukherjee, proposed by Dr. Aḥutoṣa Mukherjee, seconded by C. R. Wilson, Esq.

Nawab Ali Hosan Khan, proposed by the Hon. Mr. Justice Amir Ali, seconded by C. R. Wilson, Esq.

The following gentlemen have expressed a wish to withdraw from the Society :—

Col. E. Mockler.

Col. M. M. Bowie.

The Chairman announced that the Council had elected Mr. L. de Nicéville, Anthropological Secretary to the Society, in place of Mr. F. Finn, resigned.

The Chairman announced that a donation of Rs. 250 had been received from the Private Secretary to His Highness the Maharajah Scindia, Gwalior, on behalf of His Highness the Maharajah Scindia, for printing certain plates to illustrate the Rev. C. Maries' paper on coins of the native states.

It was resolved to thank His Highness the Maharajah Scindia, Gwalior.

The Chairman laid on the table the prospectus of the 7th International Geological Congress to be held in St. Petersburg, in August 1897.

The following papers were read :—

1. *On some traces of the Kal-Mon-Anam in the Eastern Naga Hills.*—By S. E. PEAL, F.R.G.S.

The paper will be published in the Journal, Part III.

2. *A Tibetan guide-book to the lost sites of Buddha's Birth and Death.*—By DR. L. A. WADDELL, M.B., LL.D.

The paper will be published in the Journal, Part I.

3. *A rare gold coin of Jalálu-d-dín Muḥammad Sháh of Bengal.*—By RICHARD BURN, I.C.S.

817–35 H : 1414–31 A.D.

Wt. 160. Diam. .95"

*N.*

Obverse in circle.

Reverse in quatrefoil

السلطان  
(أ) عادل جلال الدنيا  
(و) الدين ابو  
(الحج) احمد محمد شاه  
السلطان

ناصر  
امير المؤمنين  
غوث الاسلام  
و المسلمين

No margin.

Margins illegible.

This coin is not in Thomas or in the Panjab and Calcutta catalogues, or in the B.M. catalogue. The obverse corresponds with that of No. 9877, p. 146 of the Calcutta catalogue, a silver coin, and the epithet "Ghaṣṣ al islām wa al masalmin" is found on a coin of Sikandar Shāh bin Iliās Shāh, No. 9872, p. 143.

4. *A new Mint of Akbar.*—By RICHARD BURN, I.C.S.

The coin which I send for inspection bears a mint name which I read as Mánikpúr. If this reading is correct it adds a new mint city of Akbar to those already known. The coin is in good preservation, weighs 325 grains and its diameter is .875" and every letter except the "káf" is unmistakable. The unit figure, however, is not on the reverse, though there seems to be a trace of 9.

Mánikpúr has been a celebrated place since the conquest of Qanauj, and indeed its Shaikhs claim to have been settled there more than a century and a half before. Standing on the bank of the Ganges in the district of Partabgarh opposite to Karra, it has again and again been the scene of battles under both Patháns and Mughals. From Katlagh Khán under Náṣiru-d-dín Maḥmúd in A.H. 654 to the Maráthás in A.D. 1760–61, rebels to the central government have ravaged the neighbourhood. It was in the sands between Karra and Mánikpúr, according to Zíáu-d-dín Barní that Alau-d-din Muḥammad treacherously seized his uncle Jalálu-d-dín Fíroz Shāh by the hand, at the same time giving the signal for his assassination. Under Akbar the sarkár of Mánikpúr was included in the Subáh of Allahábád, and even in his reign the same lawlessness prevailed. Perhaps the most important battle of that time was that in A.H. 974 when Akbar's rapid approach forced Khán Zamán Khán to raise the siege of Shergarh and withdraw to Karra where his brother Bahádur Khán was besieging Majnún Khán Kákshál, the Jágirdár. The Emperor followed and at Rai Bareli heard that the rebels intended joining the sons of Mirza Sultán. By a forced march he reached Mánikpúr, and as no boats could be secured he swam the river on an elephant followed by a hundred cavalry. It was the old story of the army spending its night feasting in imagined security. Before they had time to recover from their confusion Akbar was in their midst joined by Majnún Khán and Ásaf Khán Jágirdár of Karra. Khán Zamán Khán was trodden to death by an elephant, and Bahádur Khán was killed by some of the Amírs.

The vicissitudes of Mánikpúr came to an end in 1762 when it was incorporated in Oudh by Shujá-ud-daulat, in which province it still remains. Its population at present is under 2,000, but the gardens and groves in its neighbourhood still contain ruins that bear witness to its former importance.

Notwithstanding the many fights that took place in the neighbourhood, the supremacy of the central government was not shaken during the reign of Akbar. The coin has nothing to distinguish it from the ordinary *dám*, and I should therefore judge that more coins of this mint, and of different years will come to light. During the decade to which it must belong (980-989) there was no serious attempt on the place, and it appears to have been an ordinary mint. The coin was obtained in a bazar in the Farukhabad District.

*Description of coin.*

Wt. 325	D. .875	Æ
Obverse.		Reverse.
مانکپور		?
فلوس		(شہ) تاد دو
ضرب		۹۸
		(نو) صد و
		سنة

LIBRARY.

The following additions have been made to the Library since the meeting held in July last :—

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- Baltimore. Johns Hopkins University,—American Chemical Journal, Vols. XVI, Nos. 7 and 8 ; XVII, 1-7.
- . American Journal of Mathematics,—Vol. XVII, Nos. 1-4.
- . American Journal of Philology,—Vol. XVI, Nos. 1-4.
- . Circulars,—Vol. XV, No. 126.
- . Studies in Historical and Political Science, 12<sup>th</sup> Series, Nos. VIII-XII; 13<sup>th</sup> Series, Nos. I-VIII.
- Berlin. Berliner Entomologische Zeitschrift,—Band XLI, Heft 1.
- Bordeaux La Société Linnéenne de Bordeaux,—Actes, Tome XLVII.
- Boston. American Philological Association,—Transactions, Vol XXVI.
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- Calcutta. Geological Survey of India,—Memoirs, Palaeontologia Indica. Series XVI, Vol. I, Part 1.  
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 ———. ———. Transactions,—Vol. XXX, Parts 15-17.
- Florence. La Società Italiana di Antropologia, Etnologia e Psicologia Comparata,—Archivio per L'Antropologia e la Etnologia, Tome XXV, No. 3.
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Katalog der Bibliothek der Kaiserlichen Leopoldinisch—Carolinischen Deutschen Akademie der Naturforscher von Oscar Grulich, Band II, Nr. 2. 8vo. Halle, 1894.

Die Kaiserliche Leopoldinisch—Carolinische Deutsche Akademie der Naturforscher, Halle.

Monthly Weather Review for December 1895 and January and February 1896. 4to. Calcutta, 1896.

METEOROLOGICAL REPORTER TO THE GOVERNMENT OF INDIA.

Annual Report of the United States Geological Survey, Washington, for the year 1892-93, Parts I-II. 4to. Washington, 1893-94.

Monographs of the United States Geological Survey, Washington, Vols. XXIII and XXIV. 4to. Washington, 1894.

UNITED STATES GEOLOGICAL SURVEY, WASHINGTON.

EHRENFELD, C. H. A Study of the Chemical Behavior of Tungsten and Molybdenum and their Trioxides. 8vo. York, 1894.

HITCHCOCK, F. R. M. Tungstates and Molybdates of the Rare Earths. 8vo. New York, 1894.

Memorial Volume of the Commencement Week of 1894 of the University of Pennsylvania. 8vo. Boston, 1894.

UNIVERSITY OF PENNSYLVANIA.

CUTTING, S. W. Der Conjunktiv bei Hartmann von Aue. 8vo. Chicago, 1894.

UNIVERSITY OF CHICAGO.

### PERIODICALS PURCHASED.

Calcutta. Indian Medical Gazette,—Vol. XXXI, No. 7.

Geneva. Archives des Sciences Physiques et Naturelles,—4<sup>e</sup> Série, Tome I, No. 6.

Leipzig. Annalen der Physik und Chemie,—Band LVIII, Heft 2 und 3.

London. The Messenger of Mathematics,—Vol. XXV, Nos. 6-12.

———. Numismatic Circular,—Vol. IV, No. 44.

### BOOK PURCHASED.

ORME, ROBERT. Historical Fragments of the Mogul Empire, of the Morattoes, and of the English Concerns in Indostan. From the year 1659. 4to. London, 1805.

**PROCEEDINGS**  
OF THE  
**ASIATIC SOCIETY OF BENGAL,**  
FOR NOVEMBER, 1896.

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The Monthly General Meeting of the Asiatic Society of Bengal, was held on Wednesday, the 4th November, 1896, at 9 P.M.

THE MOST REV. ARCHBISHOP DR. P. GOETHALS, S.J., in the chair.

The following members were present:—

Dr. A. R. S. Anderson, H. K. W. Arnold, Esq., F. Finn, Esq., T. H. Holland, Esq., Bābu Pañcānana Mukerjee, L. de Nicéville, Esq., Dr. G. Ranking, Bābu Nagendranatha Vasu, Pandit Mahēndranatha Vidyānidhi, C. R. Wilson, Esq.

Visitors:—W. Mackenzie, Esq., A. G. Westerhout, Esq.

The minutes of the last meeting were read and confirmed.

Ninety-three presentations were announced, details of which are given in the Library List appended.

The SECRETARY reported that the following gentlemen had been elected Ordinary Members of the Society during the recess in accordance with Rule 7:—

Dr. V. S. Balasundra Mudaliar.  
H. F. Samman, Esq., I.C.S.  
E. M. Konstam, Esq., I.C.S.  
Babu Syāmdās Mukerjee, M.A.  
Nawab Ali Hosan Khan.  
A. T. Pringle, Esq.

The following gentlemen duly proposed and seconded at the last Meeting of the Society were ballotted for and elected Ordinary Members :—

A. J. Grant, Esq., I.C.S.  
 J. A. Cave-Browne, Esq., I.C.S.  
 Babu Satiskisore Acharya Chaudhury.

The following gentlemen are candidates for election at the next Meeting :—

B Suryanarain Row, Esq., B.A., Vakil, Bellary, Madras Presidency, proposed by Bābu Pañcānana Mukerjee, seconded by Pandit Haraprasād Çāstri.

A. W. Davis, Esq., I.C.S., Deputy Commissioner, Naga Hills, proposed by E. A. Gait, Esq., seconded by Dr. G. A. Grierson.

The following gentlemen have expressed a wish to withdraw from the Society :—

Kumar Dinendranarain Roy.  
 Raja Ramranjan Chuckerbutty.  
 T. N. Mukerjee, Esq.

The SECRETARY reported the death of the following member :—  
 Manomohan Ghose, Esq.

The CHAIRMAN announced that the Council had elected Mr. Frank Finn, Natural History Secretary to the Society in the place of Dr. A. W. Alcock, resigned.

The PHILOLOGICAL SECRETARY exhibited a photograph of a cup-marked stone found in Kashmir forwarded by Mrs. Harriet G. M. Murray-Aynsley and read a note on it.

The ANTHROPOLOGICAL SECRETARY exhibited fragments of pottery forwarded by Surgeon-Captain F. P. Maynard, I.M.S.

The following papers were read :—

1. *The Bakhtiari Hills, an itinerary of the road from Isfahān to Shushtor*.—By RICHARD BURN, I.C.S., and CHARLES NORMAN SEDDON, I.C.S.  
 The paper will be published in the *Journal*, Part I.

2. *Notes on new salts of Cobalt and Nickel*.—By NAGENDRA CHANDRA NAG, M.A., Communicated by ALEX. PEDLER, F.R.S.

The paper will be published in the *Journal*, Part II.

3. *Scraps of Kulu folk-lore*:—No. 1, *Marriage Customs*; No. 2, *Superstitions*; No. 3, *Gods and Language*.—By A. GRAHAME YOUNG, *Communicated by the Anthropological Secretary*.

The papers will be published in the *Journal*, Part III.

4. *Note on the Prolegomena to the Zafarnāma*.—By H. BEVERIDGE.

The paper will be published in the *Journal*, Part I.

5. *Notes on the action of Nitric Oxide on Alkalies*.—By ALEX. PRDLER, F.R.S., and JYOTIBHUSHAN BHADURI, M.A.

The paper will be published in the *Journal*, Part II.

6. *On Bīrbīan, a goddess universally worshipped in the Punjab by native women with child*.—By MANMATHA NATH CHATTERJEE, *Professor of the Patiala College*.

The paper will be published in the *Journal*, Part III.

7. *On the Kāçmīrī Vowel System*.—By DR. G. A. GRIERSON, C.I.E.

(Abstract.)

The vowel system of Kāçmīrī is extremely intricate, and resembles English in this, that the spelling of a word gives an insufficient clue to its pronunciation. This is due to the important part which epenthesis plays in the pronunciation of the language. That is to say, the frequency with which a final short vowel is not itself pronounced, but affects the pronunciation of the vowel of the preceding syllable, thus giving rise to a number of diphthongal and broken sounds, which are not represented by the letters composing the word. A similar peculiarity exists in English. For instance, take the word *mar*. Here the *a*, has the sound of *ah*. But if we add a final *e* to this word, we get the word *mare*, in which *e* is not pronounced, but epenthetically affects the preceding *a*, so that it is pronounced like a Sanskrit *ॠ* and no longer like *ah*.

In Kāçmīrī, no less than three different vowels are used in this way. Placed at the end of a word, they are hardly audible, or are not pronounced at all, but they altogether change the sound of the preceding vowel. These three vowels are *i*, *u*, and *ū*, and when so used, the author represents them by small letters above the line, thus *i*, *u*, *ū*. By native grammarians they are called *mātrā*-vowels. As an example of their use, the words *kar<sup>i</sup>*, *kar<sup>u</sup>*, and *kar<sup>ū</sup>*, may be taken. Roughly speaking, the first is pronounced something like *kyrie*, the second like *core*, and the third like the German *kūr*. So also, the base *bōl-*, speech, when the feminine termination *-i* is added to it is pronounced *bō<sup>i</sup>li*

the base *nīl-*, dark green, when the masculine termination *u* is added, becomes *nyūl<sup>u</sup>*; and the root *bōz-*, hear, when the feminine termination *ū* is added, becomes *būz<sup>ū</sup>*.

The author's object has been to discuss this question of epenthesis in Kāçmīri as thoroughly as possible, and for this purpose, he has prepared lists of words, showing the result of every possible occurrence of these *mātrā*-vowels.

The results are interesting and explain many peculiarities in Kāçmīri declension and conjugation.

The paper will be published in full, in the *Journal*, Part I.

8. *On the Harparowri, or the Behari women's ceremony for producing Rain.*—By ÇARAT CANDRA MITRA, M.A., B.L. *Corresponding Member of the Anthropological Society of Bombay. Communicated by the Anthropological Secretary.*

The paper will be published in the *Journal*, Part III.

9. *Separation of Banswara from Durgapur State in Rajputana.*—By MOHANLAL VISHNULAL PANDIA, M.R.A.S.

The papers will be published in the *Journal*, Part I.

10. *Cagayan Sulu, its Customs, Legends and Superstitions.*—By ETHELBERT FORBES SKERTCHLY. *Communicated by the Anthropological Secretary.*

The paper will be published in the *Journal*, Part III.

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### LIBRARY,

The following additions have been made to the Library since the meeting held in August last:—

### TRANSACTIONS, PROCEEDINGS, AND JOURNALS,

*presented by the respective Societies and Editors.*

Baltimore. Johns Hopkins University,—Circular, Vol. XV, No. 125.

Batavia. Bataviaasch Genootschap van Kunsten en Wetenschappen,—Notulen, Deel XXXIV, Aflevering 1.

———. ————. Tijdschrift voor Indische Taal,—Land-en Volkenkunde, Deel XXXIX, Aflevering 3.

Berlin. Die K. Akademie der Wissenschaften zu Berlin,—Abhandlungen, 1895.

———. ————. Sitzungsberichte, Nrn 1-39, 1896.

Bombay. Bombay Natural History Society,—Journal, Vol. X, No. 3.

- Bombay. *Indian Antiquary*,—December, Part II, 1895; April and May, 1896.
- . *Royal Asiatic Society*,—Bombay Branch, *Journal*, Vol. XIX, No. 52.
- Buenos Aires. *Academia Nacional de Ciencias en Córdoba*,—*Boletin*, Tome XIV, Nos. 3-4.
- Budapest. *La Société Hongroise de Géographie*,—*Bulletin*, Tome XXIV, Nos. 1-5
- Calcutta. *Geological Survey of India*,—*Records*, Vol. XXIX, Parts 2 and 3.
- . *Indian Engineering*,—Vol. XX, Nos. 6-18; and *Index to Vol. XIX*.
- . *Indian Lancet*,—Vol. VIII, Nos. 3, 5, 6, 8, 9.
- . *Indian Meteorological Memoirs*,—Vols, VI, Parts 3; IX, 6 and 7.
- . *Maha-bodhi Society*,—*Journal*, Vol. V, Nos. 5 and 6.
- . *Microscopical Society of Calcutta*,—*Bulletin*, Vol. V, Nos. 4 and 5.
- . *National Magazine*,—Vol X, No. 1.
- . *Photographic Society of India*,—*Journal*, Vol. IX, Nos. 8-10.
- Cassel. *Societas pro Fauna et Flora Fennica*,—*Botanische Sitzungsberichte*, Jahrgang I-IV.
- Copenhagen. *K. Nordiske Oldskrift-Selskab*,—*Aarboeger*, II Række, IX. Bind, 2 Hefte.
- Chicago, Ill. *American Antiquarian and Oriental Journal*,—Vol. XVIII No. 4.
- Dorpat. *Die Naturforscher Gesellschaft bei der Universität Jurjew (Dorpat)*,—*Archiv für die Naturkunde Liv, —Ehst-und Kurlands*, Band XI, Lieferung 1.
- . ———. *Sitzungsberichte*, Band XI, Nr. 1.
- Dresden. *Die Gesellschaft Iris zu Dresden*,—*Deutsche Entomologische Zeitschrift*, Band IX, Heft 1.
- Dublin. *Royal Dublin Society*,—*Scientific Proceedings*, Vol. VIII (N. S.), Parts 3 and 4.
- . ———. *Scientific Transactions*, Vols. V (2nd series), Nos. 5-12; VI, 1.
- . *Royal Irish Academy*,—*Proceedings*, 3rd series, Vol. III, No. 5.
- . ———. *Tods Lecture Series*, Vol. VI.
- . ———. *Transactions*, Vol. XXX, Parts 18-20.
- . ———. *List of the Members*, 1896.
- Edinburgh. *Royal Society of Edinburgh*,—*Proceedings*, Vol. XX.
- . ———. *Transactions*, Vols. XXXVII, Parts 3 and 4; XXXVIII, 1 and 2.

- Frankfurt, a. M. Naturforschende Gesellschaft in Frankfurt am Main,—Senckenbergische, 1896.
- . a. O. Naturwissenschaftliche Vereins des Reg.-Bez. Frankfurt,—Helios, Jahrg XIII, Nrn. 7–12.
- . ———. Societatum, Litteræ,—Jahrg IX, Nrn. 10–12; X, 1–6.
- The Hague. Koninklijk Instituut voor de Taal,-Land-en Volkenkunde van Nederlandsch-Indië,—Bijdragen tot de Taal,-Land-en Volkenkunde van Nederlandsch-Indië, 6<sup>e</sup> Volgr, Deel II, Heft 3 und 4.
- . Nederlandsche Entomologische Vereeniging,—Tijdschrift voor Entomologie, Deel XXXVIII, Aflevering 2 und 3; XXXIX, 1.
- Havre. Société de Géographie Commerciale du Havre,—Bulletin, Tome XIII, No. 2.
- Helsingfors. La Société des Sciences de Finlande,—Observations publiées par L'Institut Météorologique Central, 1895; et Tome Supplimentaire, 1881–90.
- Ithaca. Cornell University,—Library Bulletin, Vol. III, No. 11.
- Leige. Société Géologique de Belgique,—Annales, Tome XXIII, No. 2.
- Leipzig. Die Deutsche Morgenländische Gesellschaft,—Zeitschrift, Band L, Heft 2.
- . Die K. Sächsische Gesellschaft der Wissenschaften,—Abhandlungen, Band XXIII, Heft 2 und 3.
- . ———. Berichte über die Verhandlungen, Math-phy cl, Nrn. II und III, 1896.
- . ———. Phil u hist. cl, Nr. I, 1896.
- London. The Academy,—Nos. 1264–76.
- . Anthropological Institute of Great Britain and Ireland,—Journal, Vol. XXVI, No. 1.
- . The Athenæum,—Nos. 3587–99.
- . Cosmopolis,—Vol. I, No. 2.
- . The Geographical Journal,—Vol. VIII, Nos. 2–4.
- . Geological Society,—Quarterly Journal, Vol. LII, Part 3.
- . Institution of Civil Engineers,—Minutes of Proceedings, Vol. CXXIV, and List of Members corrected to June 1896.
- . Institution of Electrical Engineers—Journal, Vol. XXV, No. 124; and List of Members corrected to June 30th, 1896.
- . Institution of Mechanical Engineers,—Proceedings, No. 3, 1895.
- . Linnean Society,—Journal, Botany, Vols. XXX, Nos. 211; XXXI, 212–217.
- . ———. Zoology, Vol. XXV, Nos. 161 and 162.



- London. Linnean Society,—Journal, Zoology, General Index to the first twenty Volumes.  
 ———. ———. Proceedings, Session 1894-95.  
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 ———. ———. List of Members, 1895-96.  
 ———. Nature,—Vol. LIV, Nos. 1395-1407.  
 ———. Royal Asiatic Society,—Journal, October 1896.  
 ———. Royal Astronomical Society,—Monthly Notices, Vol. LVI, No. 9.  
 ———. Royal Microscopical Society,—Journal, Parts 2 and 4, 1896.  
 ———. Royal Society,—Proceedings, Vol. LIX, No. 357.  
 ———. Royal Statistical Society,—Journal, Vol. LIX, Part 2.  
 ———. Zoological Society of London,—Proceedings, Part 2, 1896.
- Mexico. Sociedad Científica "Antonio Alzate,"—Memorias y Revista, Tome IX, Nos. 7 et 8.
- Montevideo. Museo Nacional de Montevideo,—Anales, No. 5.
- Moscow. Société Impériale des Naturalistes de Moscou,—Bulletin, No. 1, 1896.
- Munich. Die K. B. Akademie der Wissenschaften zu München,—Sitzungsberichte, Math.-phys. cl, Heft II, 1896.  
 ———. ———. ———. Phil. u. hist. cl, Heft II, 1896.
- Mussoorie. The Indian Forester,—August and September 1896.
- Paris. Journal Asiatique,—IX<sup>e</sup> Série, Tome VII, No. 2.  
 ———. Société de Géographie,—Bulletin, Nos. 1 et 2, 1896.  
 ———. ———. Comptes Rendus des Séances, Nos. 13 et 14, 1896.  
 ———. Société, Philomathique de Paris,—Bulletin, Tome VIII.  
 ———. ———. Comptes Rendus Sommaire des Séances, Nos. 17-19, 1896.
- Philadelphia. American Academy of Political and Social Science,—Annals, Vol. VIII, No. 2.
- Rome. Revista Geografica Italiana,—Tome III, Nos. 7 et 8.  
 ———. Società degli Spettroscopisti Italiani,—Memorie, Tome XXV, Nos. 7-9.
- Schaffhausen. Die Schweiz. Entomologische Gesellschaft,—Mittheilungen, Band IX, Heft 8.
- St. Petersburg. L'Académie Impériale des Sciences de St. Petersburg,—Annuaire du Musée Zoologique, Nos. 1-3, 1896.  
 ———. La Société Impériale Russe de Géographie,—Proceedings, Vol. XXXII, No. 2.
- Stockholm. Kongl. Svenska Vetenskaps-Akademiens,—Bihang, Afd. I, Band XXI; II, XXI; III, XXI; IV, XXI.

- Stockholm. Kongl. Svenska Vetenskaps-Akademiens,—Handlingar, Band XXVII.
- Sydney. Linnean Society of New South Wales,—Proceedings, Vol. XXI, Parts 1 and 2; and Supplement to Vol. XXI, Part I.
- Taiping. Perak Government,—Gazette, Vol. IX, Nos. 16–24.
- Tring. Novitates Zoologicæ,—Vol. III, No. 3.
- Turin. R. Accademia della Scienze di Torino,—Atti, Tome XXXI, Nos. 12–15.
- Vienna. Die Anthropologische Gesellschaft in Wien,—Mittheilungen, Band XXVI, Heft 3.
- . Die K. K. Geologische Reichsanstalt,—Verhandlungen, Nrn. 6–9, 1896.
- . Die K. K. Naturhistorische Hofmuseums,—Annalen, Band X, Nrn. 1 und 2.
- . Die K. K. Zoologisch-botanische Gesellschaft in Wien,—Verhandlungen, Band XLVI, Heft 7.
- Washington. Biological Society of Washington,—Proceedings, Vol. X, pp. 1–43, 45–83, 85–101, 113–114.
- Wellington. New Zealand Institute,—Transaction and Proceedings, Vol. XXVIII.
- . Polynesian Society,—Journal, Vol. V, No. 2.
- Zurich. Die Naturforschende Gesellschaft in Zürich,—Festschrift, I–II.

### BOOKS AND PAMPHLETS,

*presented by the Authors, Translators, &c.*

- BURGESS, JAS. Geographical Place-Names in Europe and the East. 8vo. London, 1895.
- GRIERSON, G. A. On the Phonology of the Modern Indo-Aryan Vernaculars. 8vo. Leipzig, 1895–96.
- . The Satsaiya of Bihari with a commentary entitled the Lala-Candrika, by Çri Lallu Lall Kavi. 8vo. Calcutta, 1896.
- HAECKEL, ERNST. Systematische Phylogenie der Wirbellosen Thiere (Invertebrata) Zweiter Thirl. 4to. Berlin, 1896.
- MITRA, SARAT CHANDRA. Original Scientific Research in Bengal. 8vo. Calcutta, 1896.
- SANJANA, DARAB DASTUR PESHOTAN. The Kârnâmê i Artakhshêr i Pâpakân; being the oldest surviving records of the Zoroastrian Emperor, Ardshîr Bâbakân. 8vo. Bombay, 1896.
- STEIN, M. A. Notes on Ou-K'ong's Account of Kaçmir. 8vo. Vienna 1896.
- TATE, G. P. A Memoir on the Country and Family of the Ahmadzai Khans of Kalat (Baluchistan). Fcp. Calcutta, 1896.

### MISCELLANEOUS PRESENTATIONS.

An Introduction to the Study of Rocks in the British Museum (Natural History). 8vo. London, 1896.

Catalogue of the Birds in the British Museum, Vol. XXIV, XXV, XXVII. 8vo. London, 1895-96.

Catalogue of the Fossil Fishes in the British Museum (Natural History). Part 3. 8vo. London, 1895.

Catalogue of the Jurassic Bryozoa in the British Museum (Natural History). 8vo. London, 1896.

Catalogue of the Madreporarian Corals in the British Museum (Natural History), Vol. II. 4to. London, 1896.

Catalogue of the Mesozoic Plants in the British Museum (Natural History), Part 2. 8vo. London, 1896.

Catalogue of the Snakes in the British Museum (Natural History), Vol. III. 8vo. London, 1896.

#### BRITISH MUSEUM, LONDON.

Report of the Department of Land Records and Agriculture, Central Provinces for the year 1894-95. Fcp. Nagpur, 1896.

Report on the Jails of the Central Provinces for the year 1895. Fcp. Nagpur, 1896.

Report on the Judicial Administration (Civil and Criminal) of the Central Provinces for the year 1895. Fcp. Nagpur, 1896.

Report of the Police Administration of the Central Provinces for the year 1895. Fcp. Nagpur, 1896.

Report of the Sanitary Commissioner of the Central Provinces for the year 1895. Fcp. Nagpur, 1896.

Report on the Vaccine Operations in the Central Provinces for the year 1895-96. Fcp. Nagpur, 1896.

Report on the workings of the Government Charitable Dispensaries in the Central Provinces for the year 1895. Fcp. Nagpur, 1896.

Report on the workings of the Registration Department in the Central Provinces for the year 1895-96. Fcp. Nagpur, 1896.

Resolution on the Revenue Administration of the Central Provinces for the year 1894-95. Fcp. Nagpur, 1896.

Returns of the Rail-borne Traffic of the Central Provinces during the quarter ending 31st March, 1896. Fcp. Nagpur, 1896.

#### CHIEF COMMISSIONER, CENTRAL PROVINCES.

SOLOMON, JOB. The Reader's Companion, being an easy guide how to speak and write Khasi. 8vo. Shillong, 1895.

#### CHIEF COMMISSIONER, ASSAM.

Report on the Administration of the Customs Department in the Bengal Presidency for the official year 1895-96. Fcp. Calcutta, 1896.

Report on the Administration of the Police of the Lower Provinces, Bengal Presidency for the year 1895. Fcp. Calcutta, 1896.

Report on the Administration of the Registration Department in Bengal for the official years 1893-94, 1894-95 and 1895-96. Fcp. Calcutta, 1896.

Report on the Administration of the Salt Department during the year 1895-96. Fcp. Calcutta, 1896.

Reports of the Alipore and Hazaribagh Reformatory Schools for the year 1895. Fcp. Calcutta, 1896.

Report on the Calcutta Medical Institution for the year 1895. Fcp. Calcutta, 1896.

Report on Emigration from the Port of Calcutta to British and Foreign Colonies, 1895. Fcp. Calcutta, 1896.

Report on the External Trade of Bengal with Nepal, Tibet, Sikkim and Bhutan for the year 1895-96. Fcp. Calcutta, 1896.

Report on Inland Emigration for the year 1895. Fcp. Calcutta, 1896.

Report on the Legal Affairs of the Bengal Government for the year 1895-96. Fcp. Calcutta, 1896.

Report on the Lunatic Asylum of Bengal for the year 1895. Fcp. Calcutta, 1896.

Report on the Police Administration of the Town of Calcutta and its Suburbs for the year 1895. Fcp. Calcutta, 1896.

Report of the Sanitary Commissioner for Bengal for the year 1895. Fcp. Calcutta, 1896.

Report of Vaccination in Bengal during the years 1893-96. Fcp. Calcutta, 1896.

Returns of the Rail and River-borne Trade of Bengal during the quarter ending the 31st March, 1896. Fcp. Calcutta, 1896.

GOVERNMENT OF BENGAL.

Selections from the Records of the Government of India, Foreign Department, No. CCCXXXIV. Fcp. Calcutta, 1896.

GOVERNMENT OF INDIA, FOREIGN DEPARTMENT.

Selections from the Records of the Government of India, Home Department, No. CCCXXX. Fcp. Calcutta, 1896.

GOVERNMENT OF INDIA, HOME DEPARTMENT.

The Agricultural Ledger, Agricultural Series No. 17; Crop Disease and Pest Series, No. 1; Entomological Series, No. 5 (Sericulture); Medical and Chemical Series, Nos. 3-5; Mineral and Metallic Series, No. 5; Vegetable Product Series, Nos. 15, 18-26. Veterinary Series, Nos. 13, 18-24. 8vo. Calcutta, 1896.

Epigraphia Indica, Vol. IV, Pt. IV, June, 1896. 4to. Calcutta, 1896.

WATT, GEO. Index to the Dictionary of the Economic Products of India. 8vo. Calcutta, 1896.

GOVERNMENT OF INDIA, REV. AND AGRI. DEPARTMENT.

Administration Report of the Madras Government Museum for the year 1895-96. Fcp. Madras, 1896.

REA, ALEXR. Châlukyan Architecture, including examples from the Ballâri District, Madras Presidency. 4to. Madras, 1896.

GOVERNMENT OF MADRAS.

Report on the Horticultural Gardens, Lucknow for the year ending 31st March, 1896. Fcp. Lucknow, 1896.

Report on the progress and condition of the Government Botanical Gardens, Saharanpur and Mussoorie for the year ending 31st March, 1896. Fcp. Allahabad, 1896.

SMITH, EDMUND W. The Moghal Architecture of Fathpur-Sikri, Part II. 4to. Allahabad, 1896.

GOVERNMENT OF N.-W. P. AND OUDH.

DIACK, A. H. The Kulu Dialect of Hindi. 8vo. Lahore, 1896.

Final Report of the Revision of the settlement of the Sialkot District in the Punjab. Fcp. Lahore, 1895.

Report on the Sanitary Administration of the Punjab for the year 1895. Fcp. Lahore, 1896.

Report on Vaccination in the Punjab for the year 1895-96. Fcp. Lahore, 1896.

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Harvard Oriental Series, Vols. II-III. 8vo. Cambridge, Mass., 1895-96.

CHARLES R. LANMAN, ESQ.

Monthly Weather Review from March, to May, 1896. 4to. Calcutta, 1896.

Report on the Administration of the Meteorological Department of the Government of India in 1895-96. 4to. Calcutta, 1896.

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Annals of the Royal Botanic Garden, Calcutta, Vol. V, Parts II; VI, I; VII. Fcp. Calcutta, 1895-96.

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Report of the United States National Museum, Washington for the year ending June 30th, 1893. 8vo. Washington, 1895.

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Biographical Sketches of the Graduates of Yale College with the Annals of the College History, Vol. II, May, 1745—May, 1763. 8vo. New York, 1896.

YALE COLLEGE, NEW HAVEN.

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- Braunschweig. Jahresbericht über die Fortschritte der Chemie und  
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- Calcutta. Calcutta Review,—October, 1896.
- . Indian Medical Gazette,—Vol. XXXI, Nos. 8-10.
- Geneva. Archives des Sciences Physiques et Naturelles,—Tome II  
Nos. 7-9.
- Leipzig. Annalen der Physik und Chemie,—Band LVIII, Heft 4;  
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- . ———. Beiblätter, Band XX, Stück 6-9.
- London. Messenger of Mathematics,—Vol. XXVI, No. 1.
- . Numismatic Circular,—Vol. IV, Nos. 45-47.
- Vienna. Vienna Oriental Journal,—Vol. X, No. 2.
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PROCEEDINGS  
OF THE  
ASIATIC SOCIETY OF BENGAL,  
FOR DECEMBER, 1896.

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The Monthly General Meeting of the Asiatic Society of Bengal, was held on Wednesday, the 2nd December, 1896, at 9 P.M.

Dr. A. F. R. Hoernle, Vice-President, in the chair.

The following members were present :—

F. Finn, Esq., The Most Rev. Archbishop P. Goethals, A Hogg, Esq., T. H. Holland, Esq., W. H. Miles, Esq., Dr. D. M. Moir, L. de Nicéville, Esq., The Hon. Mr. H. H. Risley, C. R. Wilson, Esq.

Visitors : Dr. Th. Bloch, Denzil Ibbetson, Esq., Dr. F. O'Kinealy, B. C. Oldham, Esq., C. Saunders, Esq.

The minutes of the last meeting were read and confirmed.

Thirteen presentations were announced, details of which are given in the Library List appended.

The following gentlemen duly proposed and seconded at the last Meeting of the Society were balloted for and elected Ordinary Members :—

B. Suryanarain Row, Esq., B.A.,

A. W. Davis, Esq., I.C.S.

The following gentlemen are candidates for election at the next Meeting :—

Dr. Amritalal Sircar, L.M.S., 51, Sakaritola Lane, proposed by Pandit Mahēndranath Vidyānidhi, seconded by Bābu Nagendranātha Vasu.

Pandit Tulsi Ram Misra, M.A., Tutor to H. H. The Raja Mursan, District Aligarh, proposed by Pandit Mahanlal Vishnunal Pandia, seconded by Pandit Haraprasād Čāstri.

“Shams-ul-ulama,” “Khan Bahadur” M. Zakaullah, Delhi, proposed by A. F. M. Abdur Rahman, Esq., seconded by Dr. A. F. R. Hoernle.

The following gentleman has expressed a wish to withdraw from the Society :—

Sir C. A. Elliott, K.C.I.E.

The CHAIRMAN announced that the Council had agreed to Dr. Hoernle, editing the Society’s Journal, Part I, as a temporary measure till other arrangements were made, in the place of Dr. G. A. Grierson, resigned.

Mr. T. H. Holland exhibited specimens showing flow-structure in dyke-rocks.

The Natural History Secretary exhibited specimens of new and rare reptiles.

The following papers were read :—

1. *A list of Kāçmīri Verbs*.—By GEORGE A. GRIERSON, C.I.E.  
The paper will be published in the *Journal*, Part I.

2. *An account of the Reptilia collected by the Afghan-Baluch Boundary Commission of 1896*.—By A. ALCOCK, M.B., C.M.Z.S., AND F. FINN, B.A., F.Z.S.

The paper will be published in the *Journal*, Part II.

3. *The Pre-Aryan races of India, Asam and Burma*.—By S. E. PEAL, F.R.G.S.

The paper will be published in the *Journal*, Part III.

4. *The Discovery of Vidhivivēka, an unique MS. at Pūri*.—By PANDIT HARAPRASĀDA ČĀSTRĪ.

It is a well-known fact that Vācaspati Miçra commented upon some of the best known works on the six schools of Hindū philosophy. His Bhāmati is a commentary on Čaṅkarācārya’s Čārīraka-bhāṣya; Nyāyavārtika-tātparyā-ṭikā on Nyāyavārtika by Udyōtakara; Sāṃkhya-tattva-kaumudi on Içvarakriṣṇa’s Kārikās; Yōgasūtra-bhāṣya-vyākhyā on Yōga-bhāṣya by Vyāsa.



But on *Mīmāṃsā* he wrote a commentary, entitled *Nyāyakaṇikā*, on a certain work named *Vidhi-vivēka*. His commentary is known to Hall (see his catalogue p. 87). A MS. of this commentary is to be found in the Sanskrit College Library at Benares. Two pages of this commentary are missing, and so I was requested to get a copy of these two pages from the only other MS. known to belong to the Mahant of *Çaṅkara-maṭha* at *Pūri*. The *Çaṅkara-maṭha* MS. is noticed by the late *Rāja R. Mitter* in p. 291 of the eighth volume of his *Notices of MSS.* My travelling Pandit, *Binōdvihārī Kāvya-tīrtha* was asked to copy out the pages at *Pūri*, and in attempting to do so, he has made an important discovery. He was successful in laying his hand on the identical MSS. mentioned by *Dr. Mitra*. This was very fortunate, because since the publication of Vol. VIII, many of the *Çaṅkara-maṭha* MSS. are reported to have been lost or destroyed.

The beginning and end of the MS. is the same as given in Vol. VIII; but on careful examination, the first forty-six leaves of the MS. proved to be the text of the *Vidhi-vivēka*. The MS. of *Nyāyakaṇikā* was defective. It commences at leaf 87 and ends at leaf 268. The whole MS. was mistaken by *Dr. Mitra's* Pandit to be that of *Nyāyakaṇikā*. The text of *Vidhi-vivēka* is by *Maṇḍana Miçra*—the great *Mīmāṃsaka* teacher who was converted to be a *Vēdāntist* by *Çaṅkarācārya* and who wrote a large number of works on *Vēdānta*. His name as a *Sannyāsi* was changed into *Surēçvarācārya*. He wrote the *Vidhi-vivēka* while he was a householder and fully believed in the efficacy of Vedic rituals. The so-called biographers of *Çaṅkara* have dwelt largely on the powers and learning of *Maṇḍana*, who was regarded as an incarnation of *Brahmā* himself.

The MS. of the *Vidhi-vivēka* is written in an excellent *Dēvanāgarī* hand and appears to have been written at least two hundred years ago. I have caused a transcript of the MS. to be made in *Bangālī* character, and it is now laid before you.

5. *List of Birds collected by the Afghan-Baluch Boundary Commission of 1896.*—By F. FINN, B.A., F.Z.S.

The paper will be published in the *Journal*, Part II.



## LIBRARY.

The following additions have been made to the Library since the meeting held in November last:—

## TRANSACTIONS, PROCEEDINGS AND JOURNALS,

*presented by the respective Societies and Editors.*

- Amsterdam. Koninklijke Academie van Wetenschappen,—Jaarboek, 1895.
- Batavia. Bataviaasch Genootschap van Kunsten en Wetenschappen,—Notulen, Deel XXXIV, Aflevering 2.
- Berlin. Die Königlich Preussische Akademie der Wissenschaften zu Berlin,—Sitzungsberichte, Nrn. XXXIX–LIII, 1893.
- Bombay. The Indian Antiquary for June, 1896.
- Brussels. Musée Royal d'Histoire Naturelle de Belgique,—Annales, Tome XII et Plates.
- Budapest. A Magyar Tndomanyos Akademia,—Almanach, 1892.
- . ———. Nyelvtudományi Közlemények, Kötet XXII, 3 es 4. Füzet.
- . Die Ungarische Akademie der Wissenschaften,—Mathematische und Naturwissenschaftliche Berichte aus Ungarn, Band IX, Nrn. 1 und 2.
- . ———. Rapport, 1891.
- . ———. Ungarische Revue, 1891, Nrn. 8–10 ; 1892, 1–5.
- Calcutta. Indian Engineering,—Vol. XX, Nos. 19–22.
- . The Indian Lancet,—Vol. VIII, Nos. 7 and 10.
- . Maha-bodhi Society,—Journal, Vol. V, No. 7.
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- Copenhagen. K. Nordiske Oldskrift-Selskab,—Aarboger, II Raekke, 10 Bind, 1 Hefte.
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- Florence. La Società Italiana di Antropologia, Etnologia e Psicologia Comparata,—Archivio per L' Antropologia e la Etnologia, Tome XXVI, No. 1.
- Frankfurt, a. M. Die Senskenbergische Naturforschenden Gesellschaft,—Abhandlungen, Band XIX, Nrn. 1–4 ; XXII.
- Genoa. Museo Civico de Storia Naturale di Genova,—Annali, 2<sup>a</sup> Serie, Tome X–XVI.
- Halle. Die Kaiserliche Leopoldino-Carolinische Deutsche Akademie der Naturforscher,—Leopoldina, Nr. XXXI.
- . ———. Nova Acta, LXIII und LXIV.

- Hamilton. Hamilton Association,—Journal and Proceedings, No. XII.
- London. The Academy,—Nos. 1276–79.
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- . The Geographical Journal,—Vol. VIII, No. 5.
- . Geological Society,—Quarterly Journal, Vol. LII, Part 4.
- . Institution of Mechanical Engineers,—Proceedings, 1895, No. 4.
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- . Royal Microscopical Society,—Journal, 1896, Part 5.
- . Royal Society,—Proceedings, Vols. LIX, Nos. 358, LX, 359.
- Mexico. La Sociedad Científica “Antonio Alzate,”—Memorias y Revista, Tome IX, Nos. 9 et 10.
- Moscow. La Société Impériale des Naturalistes de Moscou,—Bulletin, No. 2, 1896.
- Munich. Die Königlich Bayerische Akademie der Wissenschaften,—Abhandlungen, Abth I, Band XX, Nrn. 2; II, XIX, 1; III, XXI, 1–2.
- Mussoorie. The Indian Forester,—Vol. XXIII, No. 10.
- Paris. La Société Philomathique de Paris,—Compte-Rendu Sommaire de la Séance, No. 1, 1896.
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- . Horti Petropolitani,—Acta, Tome XV, No. 1.
- Stockholm. L'Académie Royale des Sciences de Suède,—Observations, Tome XXXIII.
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- Vienna. Die K. K. Geologische Reichsanstalt,—Verhandlungen, Nrn. 10–12, 1896.
- . Die K. K. Naturhistorische Hofmuseums,—Annalen, Band X, Nrn. 3–4.
- . Die K. K. Zoologisch-botanische Gesellschaft in Wien,—Verhandlungen, Band XLVI, Heft 8.
- Yokohama. Asiatic Society of Japan,—Transactions, General Index, Vols. I–XXIII.

### MISCELLANEOUS PRESENTATIONS.

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8vo. Chicago, 1896.

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Bulletin of the Department of Agriculture, Brisbane, Nos. 8-11. 8vo.  
Brisbane, 1896.

DEPARTMENT OF AGRICULTURE, BRISBANE.

Annual Report of the Geological Survey of Canada, Vol. VII, 1894.  
8vo. Ottawa, 1896.

GEOLOGICAL SURVEY OF CANADA.

Administration Report of the Meteorological Reporter to the Govern-  
ment of Bengal for the years 1893-1896.

Returns of the Rail and River-borne Trade of Bengal during the quarter  
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A Fifth Report of Operations in Search of Sanskrit MSS. in the  
Bombay Circle, April 1892 to March 1895. 8vo. Bombay, 1896.

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General Report on the Operations of the Survey of India Department  
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- . Literarisches Centralblatt,—1891-95 ; 1896, Nrn. 1-39.
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- . The Chemical News,—Vols. LXXI, Nos. 1832-57 ; LXXII 1858-83 ; LXXIII, 1884-1909 ; LXXIV, 1910-22.
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- . The London, Edinburgh and Dublin Philosophical Magazine and Journal of Science,—1895 ; 1896, Nos. 1-9.
- . The Messenger of Mathematics,—June to August, 1896.
- . The Numismatic Chronicle,—1895, Parts 1-4 ; 1896, 1-2.
- . Numismatic Circular,—Vol. IV, No. 48.
- . The Quarterly Journal of Microscopical Science,—Vols. XXXVII, Parts 2-4 ; XXXVIII, 1-4 ; XXXIX, 1-2.
- . The Quarterly Journal of pure and applied Mathematics,—Vols. XXVII, Nos. 107-8 ; XXVIII, 109-11.
- New Haven. The American Journal of Science,—1895, 1896, Nos. 1-9.
- Paris. L'Academie des Sciences,—Comptes Rendus des Seances, Tome CXX.—CXXII, CXXIII, Nos. 1-13.
- . Annals de Chimie et de Physique,—Tome VI-VI ; VII, Nos. 1-9.
- . Journal des Savants,—1891-95 ; 1896, Nos. 1-8.
- . Revue Critique d' Histoire et de Littérature,—Tome XXXIX-XLI ; XLII, Nos. 27-39.
- . Revue Linguistique et de Philologie Comparée,—1896, Nos. 1-3.
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LIST OF MEMBERS  
OF THE  
ASIATIC SOCIETY OF BENGAL.  
ON THE 31ST DECEMBER, 1895.

LIST OF OFFICERS AND MEMBERS OF COUNCIL  
OF THE ASIATIC SOCIETY OF BENGAL  
FOR THE YEAR 1895.

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R. = Resident. N. R. = Non-Resident. A. = Absent. N. S. = Non-Subscribing.  
L. M. = Life Member. F. M. = Foreign Member.

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N. B.—Members who have changed their residence since the list was drawn up are requested to give intimation of such a change to the *Secretaries*, in order that the necessary alteration may be made in the subsequent edition. Errors or omissions in the following list should also be communicated to the *Secretaries*.

Members who are about to leave India and do not intend to return are particularly requested to notify to the *Secretaries* whether it is their desire to continue Members of the Society; otherwise, in accordance with Rule 40 of the Bye-Laws, their names will be removed from the list at the expiration of three years from the time of their leaving India.

Date of Election.		
1894 Sept. 27.	N.R.	Abdul Wali, Maulvie. <i>Sailkapa, Jessore District.</i>
1895 Mar. 6.	R.	Abdur Rahman, A. F. M., Judge, Court of Small Causes. <i>Calcutta.</i>
1895 May 1.	R.	Abdus Salam, Maulvie, M. A. <i>Calcutta.</i>
1888 Feb. 1.	N.R.	Adamson, Major Charles Henry Ellison, M. S. C. <i>Minbu.</i>
1895 Aug. 29.	R.	Agnew, Henry De Courcy. <i>Calcutta.</i>
1860 July 4.	N.R.	Ahmad Khán, The Hon. Maulvie Sir Sayid, Bahádur, K. C. S. I. <i>Aligarh.</i>
1888 April 4.	R.	Ahmud, Shams-ul-ulama Maulvie, Arabic Professor, Presidency College. <i>Calcutta.</i>
1888 Feb. 1.	R.	Alcock, Surgeon-Captain Alfred William, M. B., Superintendent, Indian Museum. <i>Calcutta.</i>
1884 Mar. 5.	L.M.	Ali, Sir 'Ali Qadr Syud Hassan, Nawáb Bahádur, K. C. I. E. <i>Murshedabad.</i>
1885 Mar. 4.	N.R.	Ali Bilgrámi, Sayid, B. A., A. R. S. M., F. G. S. <i>Hyderabad.</i>
1874 June 3.	R.	Amir 'Ali, The Hon., C. I. E., M. A. Barrister-at-Law, Judge, High Court. <i>Calcutta.</i>
1865 Jan. 11.	F.M.	Anderson, John, M. D., F. R. S., F. L. S. <i>Europe.</i>
1884 Sept. 3.	R.	Anderson, J. A. <i>Calcutta.</i>
1893 Aug. 31.	R.	Anderson, Dr. A. R. S. <i>Calcutta.</i>
1892 Jan. 6.	R.	Arnold, Henry Kerchever Walter. <i>Calcutta.</i>
1890 July 2.	N.R.	Arnold, Thomas Walker, B. A., M. R. A. S., Professor, Muhammadan Anglo-Oriental College. <i>Aligarh.</i>

Date of Election.		
1892 Feb. 3.	N.R.	Arthur, O. G., c. s. <i>Muttra.</i>
1872 April 3.	N.R.	Ashán-ullah, Nawáb, Khán Bahádur. <i>Dacca.</i>
1877 July 4.	R.	Ashgar 'Alí Diler Jang, Nawáb Sayid, Khán Bahádur, c. s. I. <i>Calcutta.</i>
1889 Aug. 29.	N.R.	Aziz-ud-din Ahmad, Deputy Magistrate. <i>Jaunpur.</i>
1870 Feb. 2.	L.M.	Baden-Powell, Baden Henry, c. s., c. I. E. <i>Europe.</i>
1891 Mar. 4.	N.R.	Baillie, D. C., c. s. <i>Naini Tal.</i>
1892 Aug. 3.	N.R.	Baker, Lieutenant Donald. <i>Meerut.</i>
1891 April 1.	N.R.	Baker, E. C. S. <i>Cachxr.</i>
1889 May 1.	R.	Banerji, The-Hon. Gurudás, M. A., D. L., Judge, High Court. <i>Calcutta.</i>
1869 Dec. 1.	L.M.	Barker, R. A., M. D. <i>Europe.</i>
1885 Nov. 4.	R.	Barman, Dámudar Dás. <i>Calcutta.</i>
1877 Jan. 17.	N.R.	Barman, Kishor Kumár Rádhá Dev, Juvráj of Hill Tipperah. <i>Tipperah.</i>
1894 Sept. 27.	R.	Basu, Nagendra Natha. <i>Calcutta.</i>
1893 April 5.	N.R.	Batabyal, Umes Chunder, c. s. <i>Bogra.</i>
1864 Sept. 7.	A.	Beames, John, c. s. <i>Europe.</i>
1895 July 3.	L.M.	Beatson-Bell, N.D., c. s. <i>Dacca.</i>
1878 Sept. 25.	A.	Beighton, T. D., c. s. <i>Europe.</i>
1876 Nov. 15.	F.M.	Beveridge, Henry, c. s. <i>Europe.</i>
1878 Oct. 4.	R.	Bhakta, Krishna Gopál. <i>Calcutta.</i>
1892 April 6.	R.	Bhattacharjee, Janaki Nath. <i>Calcutta.</i>
1879 Mar. 5.	A.	Biddulph, Col. J., B. S. C. <i>Europe.</i>
1884 Feb. 6.	A.	Bigg-Wither, Major A. C., B. A., A. I. C. E. <i>Europe.</i>
1859 Aug. 3.	L.M.	Blanford, W. T., A. R. S. M., F. R. S., F. G. S., F. R. G. S., F. Z. S. <i>Europe.</i>
1893 Feb. 1.	N.R.	Bodding, The Rev. P. O. <i>Rampore Haut.</i>
1885 Mar. 4.	A.	Bolton, C. W., c. s. <i>Bankipur.</i>
1895 July 3.	R.	Bonham-Carter, N., c. s. <i>Calcutta.</i>
1890 July 2.	R.	Bonnerjee, Womes Chunder, Barrister-at-Law, Middle Temple. <i>Calcutta.</i>
1893 Mar. 1.	R.	Bose, Bhupendra Nath, Solicitor. <i>Calcutta.</i>
1895 Mar. 6.	R.	Bose, J. C., M. A., Bengal Education Service. <i>Calcutta.</i>
1880 Nov. 3.	R.	Bose, Pramatha Nath, B. Sc., F. G. S., Geological Survey of India. <i>Calcutta.</i>
1890 Dec. 3.	N.R.	Bose, Rai Nali Naksha, Bahádur, Chairman, Burdwan Municipality. <i>Burdwan.</i>
1895 April 3.	N.R.	Bourdillon, J. A., c. s. <i>Burdwan.</i>
1876 Nov. 15.	N.R.	Bowie, Colonel M. M., Commissioner, C. P. <i>Nagpur.</i>
1876 May 4.	A.	Bradshaw, Surgeon-Major-General A. F., M. D., C. B. <i>Europe.</i>
1860 Mar. 7.	L.M.	Brandis, Sir Dietrich, K. C. I. E., Ph. D., F. L. S., F. R. S. <i>Europe.</i>
1891 Aug. 27.	A.	Brown, Dr. E. H. <i>Europe.</i>
1887 May 4.	R.	Burál, Nobinchánd, Solicitor. <i>Calcutta.</i>
1862 Feb. 5.	L.M.	Bysack, Gaurdás. <i>Calcutta.</i>



Date of Election.		
1879 April 2.	R.	Calcutta, The Rt. Rev. the Lord Bishop of. <i>Calcutta.</i>
1895 July 3.	N.R.	Carey, H. D., c. s. <i>Serajgunge.</i>
1895 July 3.	N.R.	Carlyle, R. W., c. s. <i>Comillah.</i>
1893 Feb. 1.	R.	Caspersz, A. A., Barrister-at-Law. <i>Calcutta.</i>
1890 June 4.	N.R.	Chakravartí, Man Mohan, M. A., B. L., Deputy Magistrate. <i>Jajpur, Cuttack.</i>
1894 Aug. 1.	N.R.	Chatterjee, M. N., Professor of Philosophy, Maharaja's College. <i>Patialia.</i>
1893 July 5.	N.R.	Chatterjee, Radhikáraman. <i>Rungpore.</i>
1892 Dec. 7.	N.R.	Chatterjee, Sarat Chandra, B. A. <i>Madhupur.</i>
1892 Aug. 3.	N.R.	Chaube, Behary Lall. <i>Bankipur.</i>
1893 Sept. 28.	N.R.	Chaudhuri, Banawarilala, B. sc. Edin. <i>Sherpur, Mymensingh.</i>
1861 Mar. 1.	N.R.	Chaudhuri, Harachandra, Zemindar. <i>Sherpur, Mymensingh.</i>
1880 Nov. 3.	N.R.	Chaudhuri, Rái Khirod Chandra. <i>Chupra.</i>
1885 Feb. 4.	N.R.	Chaudhuri, Rájá Suryakánta, Bahádur. <i>Mymensingh.</i>
1890 Feb. 5.	N.R.	Chuckerbutty, A. Goodeve, c. s. <i>Lahore.</i>
1889 Sept. 26.	N.R.	Chuckerbutty, Rájá Rámranjan, Bahádur. <i>Hitam-pur, Beerbhoom.</i>
1885 April 1.	A.	Clark, H. Martyn, M. B. <i>Europe.</i>
1880 Aug. 26.	F.M.	Clerk, Colonel Malcolm G. <i>Europe.</i>
1881 May 4.	N.R.	Cockburn, John, Asst. Sub-Deputy Opium Agent. <i>Allahabad.</i>
1889 Nov. 6.	A.	Colville, William Brown. <i>Europe.</i>
1890 Dec. 3.	A.	Connan, William, C. E. <i>Europe.</i>
1876 Mar. 1.	F.M.	Crawford, James, B. A., C. S. <i>Europe.</i>
1887 Aug. 25.	R.	Criper, William Risdon, F. C. S., F. I. C., A. R. S. M. <i>Cossipore.</i>
1877 June 6.	R.	Croft, Sir A. W., M. A., K. C. I. E. Director of Public Instruction, Bengal. <i>Calcutta.</i>
1874 Mar. 4.	R.	Crombie, Surgeon-Major Alexander, M. D., Presidency General Hospital. <i>Calcutta.</i>
1888 Dec. 5.	A.	Crooke, William, B. A., C. S. <i>Europe.</i>
1895 July 3.	N.R.	Cumming, J. G., c. s. <i>Comillah.</i>
1873 Aug. 6.	R.	Cunningham, Surgeon-Major David Douglas, F. R. S., Honorary Surgeon to the Viceroy. <i>Calcutta.</i>
1873 Dec. 3.	N.R.	Dames, Mansel Longworth, c. s., Asst. Commissioner. <i>Dera Ghazi Khan.</i>
1892 Mar. 2.	N.R.	Das, Gopal Ballabh, M. A. <i>Cuttack.</i>
1865 June 7.	N.R.	Dás, Rájá Jaykrishna, Bahádur, c. s. I. <i>Moradabad.</i>
1879 April 7.	N.R.	Dás, Rám Saran, M. A., Secy., Oudh Commercial Bank, Limited. <i>Fyzabad, Oudh.</i>
1893 Nov. 1.	R.	Dé, B, c. s. <i>Hooghly.</i>

Date of Election.		
1885 May 6.	N.R.	Dé, Rájá Baikuntánáth, Bahádur. <i>Balasore.</i>
1895 Sept. 19.	N.R.	De, Kiran Chandra, c. s. <i>Ranaghat.</i>
1895 Dec. 4.	N.R.	Delmerick, Charles Swift. <i>Budaon.</i>
1893 Mar. 1.	F.M.	Deussen, Dr. Paul. <i>Europe.</i>
1886 June 2.	R.	Doyle, Patrick, C. E., M. R. I. A., M. I. C. E. I., F. R. A. S., F. R. S. E., F. G. S., F. R. Met. S., L. S. (Exam.), M. Lond. Math. Soc., F. S. S., Fel. San. Inst., M, Aus. Inst. M. E. <i>Calcutta.</i>
1892 Sept. 22.	R.	Drury, Dr. F. J. <i>Calcutta.</i>
1889 Jan. 2.	N.R.	Dudgeon, Gerald Cecil. <i>Sailihat, W. Dooars.</i>
1879 Feb. 5.	R.	Duthie, J. F., Director, Government Botanical Survey, Northern India. <i>Saharanpur.</i>
1892 Jan. 6.	N.R.	Dutt, Gerindranath. <i>Hatwa.</i>
1877 Aug. 30.	R.	Dutt, Kedárnáth, Depy. Magistrate. <i>Calcutta.</i>
1892 Aug. 25.	R.	Dutt, Narsingh. <i>Hourah.</i>
1890 Sept. 25.	N.R.	Dutt, Romesh Chunder, c. s., Barrister-at-Law, Middle Temple. <i>Cuttack.</i>
1870 Mar. 9.	L.M.	Edinburgh, H. R. H. The Duke of. <i>Europe.</i>
1871 Dec. 2.	N.R.	Eliot, J., M. A., Meteorological Reporter to the Govt. of India. <i>Simla.</i>
1892 May 4.	F.M.	Elliott, Sir C. A., K. C. S. I., C. I. E. <i>Europe.</i>
1891 Aug. 27.	N.R.	Ernest, Diego, Merchant. <i>Bombay.</i>
1894 Dec. 5.	R.	Finn, Frank, B. A. <i>Calcutta.</i>
1879 July 2.	R.	Finucane, M., c. s. <i>Calcutta.</i>
1886 April 7.	A.	Fleet, John Faithfull, c. s., C. I. E. <i>Europe.</i>
1893 May 3.	A.	Forbes, Major H. F. Gordon. <i>Europe.</i>
1892 May 4.	A.	Forrest, G. W., B. A., <i>Europe.</i>
1876 July 5.	N.R.	Foulkes, The Rev. Thos., F. L. S., M. R. A. S., F. R. G. S. <i>Salem, Madras Presidency.</i>
1893 Jan. 11.	N.R.	Gait, E. A., c. s. <i>Shillong.</i>
1880 April 7.	N.R.	Gajapati, Sir Ananda Rám, K. C. I. E., Rájá of Vizianagram. <i>Vizianagram.</i>
1859 Aug. 3.	L.M.	Gastrell, General James Eardley. <i>Europe.</i>
1889 Jan. 2.	R.	Ghose, Jogendrachandra, M. A., B. L. <i>Calcutta.</i>
1883 Aug. 30.	R.	Ghose, Manmohan. <i>Calcutta.</i>
1889 Mar. 6.	R.	Ghosha, Bhupendra Sri. <i>Calcutta.</i>
1869 Feb. 3.	R.	Ghosha, Pratápachandra, B. A. <i>Calcutta.</i>
1895 April 3.	R.	Gilliland, J. H., Bengal Education Service. <i>Calcutta.</i>
1886 Sept. 30.	N.R.	Gimlette, Surgeon George Hart Desmond, Bengal Medical Service, M. D., M. CH., M. R. C. S., L. S. A., <i>Sutna, E. I. R.</i>
1890 Aug. 6.	R.	Goethals, His Grace Dr. Paul, S. J., Archbishop. <i>Calcutta.</i>
1861 Feb. 5.	N.S.	Godwin-Austen, Lieut.-Colonel H. H., F. R. S., F. Z. S., F. R. G. S. <i>Europe.</i>

Date of Election.		
1892 Aug. 25.	N.R.	Greeven, R., c. s. <i>Naini Tal.</i>
1876 Nov. 15.	R.	Grierson, Dr. George Abraham, c. s., c. i. e. <i>Howrah.</i>
1885 Dec. 2.	R.	Griesbach, C. L., c. i. e., F. G. S., Director, Geological Survey of India. <i>Calcutta.</i>
1888 July 4.	R.	Gupta, Rajanikánta. <i>Calcutta.</i>
1892 Jan. 6.	N.R.	Haig, Lieutenant Wolseley. <i>Yeotmal, Berar.</i>
1883 Jan. 3.	N.R.	Harding, Francis Henry, B. A., c. s. <i>Shahabad.</i>
1890 June 4.	A.	Heilgers, Robert Philip, Consul for H. I. M. the Emperor of Austria and Hungary, Knight of the Imperial Order of the Iron Crown, Commandeur Ordre Impériale de Medjidié, F. R. G. S., F. R. S. S. <i>Europe.</i>
1875 Mar. 3.	N.R.	Hendley, Brigade-Surgeon Lt.-Col. Thomas Holbein, c. i. e. <i>Jeypur.</i>
1890 April 2.	A.	Hickson, F. G. <i>Europe.</i>
1892 Aug. 3.	F.M.	Hill, Samuel Charles. <i>Europe.</i>
1872 Dec. 5.	R.	Hoernle, A. F. R., PH. D., Principal of the Calcutta Madrasa.
1878 Mar. 6.	N.R.	Hoey, Dr. W., c. s. <i>Gorakhpur.</i>
1886 June 2.	R.	Hogg, Alexander. <i>Calcutta.</i>
1891 July 1.	R.	Holland, Thomas H., F. G. S. Geological Survey of India. <i>Calcutta.</i>
1884 Mar. 5.	N.R.	Hooper, John, c. s., Secretary, Board of Revenue. <i>Allahabad. N.-W. P.</i>
1873 Jan. 2.	L.M.	Houstoun, G. L., F. G. S. <i>Europe.</i>
1863 Jan. 15.	A.	Howell, Mortimer Sloper, c. s., c. i. e. <i>Europe.</i>
1884 May 2.	N.R.	Hussein, Sayid, B. A., Secy. to Nizam of Hyderabad's Council. <i>Hyderabad.</i>
1890 Dec. 3.	A.	Hyde, The Rev. Henry Barry, M. A., Bengal Ecclesiastical Establishment. <i>Europe.</i>
1866 Mar. 7.	F.M.	Irvine, William, c. s. <i>Europe.</i>
1869 Aug. 4.	R.	Jahán Qadr Muhammad Wáhid Alí, The Hon. Prince Sir, Bahadur, K. C. I. E. <i>Garden Reach. Calcutta.</i>
1895 Dec. 4.	N.R.	Kennedy, J., c. s. <i>Murshidabad.</i>
1882 Mar. 1.	N.R.	Kennedy, Pringle, M. A. <i>Mozufferpur.</i>
1874 Dec. 2.	N.R.	Khudá Baksh, Maulvie, Khán Bahádur. <i>Bankipur:</i>
1867 Dec. 4.	R.	King, Brigade-Surgeon George, C. I. E., M. B., F. I. S., Supdt., Royal Botanic Garden. <i>Sibpur.</i>
1881 Mar. 2.	F.M.	King, Lucas White, B. A., LL. B., C. S. <i>Europe.</i>
1884 Nov. 5.	A.	Kitts, Eustace John, c. s. <i>Europe.</i>
1891 Feb. 4.	N.R.	Kupper, The Hon. Lala Bunbehari. <i>Burdwan.</i>
1893 July 1.	R.	Laharry, S. C. <i>Ohinsurah.</i>

Date of Election.			
1887 May 4.	L.M.	Lanman, Charles R., Corresponding Secretary of the American Oriental Society, Professor of Sanskrit in Harvard College. <i>Cambridge, Mass. U. S. America.</i>	
1877 Sept. 27.	N.R.	LaTouche, James John Digges, B. A., C. S. <i>Allahabad.</i>	
1889 Mar. 6.	A.	LaTouche, Thomas Henry Digges, M. A. Deputy Superintendent, Geological Survey of India. <i>Europe.</i>	
1889 Nov. 6.	R.	Lee, W. A. <i>Calcutta.</i>	
1889 Feb. 6.	R.	Little, C., M. A., Bengal Education Service. <i>Calcutta.</i>	
1886 Sept. 30.	A.	Luson, Hewling, C. S. <i>Europe.</i>	
1869 July 7.	N.R.	Lyall, Charles James, M. A., LL. D., C. S. I., C. I. E. Chief Commissioner, C. P. <i>Nagpur.</i>	
1892 Sept. 22.	A.	Lyell, George. <i>Europe.</i>	
1870 April 7.	L.M.	Lyman, B. Smith. <i>Philadelphia, Pa., U. S. America.</i>	
1868 Dec. 2.	A.	Macauliffe, Michael, B. A., C. S. <i>Europe.</i>	
1893 Jan. 11.	L.M.	Maclagan, E. D., M. A., C. S. <i>Europe.</i>	
1891 Feb. 4.	N.R.	Macpherson, Duncan J., C. S. <i>Gya.</i>	
1893 Aug. 31.	N.R.	Mahatha, Purmeshwar Narain. <i>Mozufferpore.</i>	
1895 Sept. 19.	R.	Mahomed Abdul Kadar, Khan Bahadur. <i>Calcutta.</i>	
1881 July 6.	R.	Mahomed Firukh Sháh, Prince. <i>Calcutta.</i>	
1895 Aug. 29.	R.	Mahomed Gilani, Shams-ul-ulama Shaikh. <i>Calcutta.</i>	
1886 Jan. 6.	N.R.	Mahomed Latif Khán, Sayid, Khán Bahádur. <i>Jullunder.</i>	
1882 Aug. 2.	R.	Mahomed Yusoof, The Hon. Maulvie, Khan Bahadur. <i>Calcutta.</i>	
1889 Jan. 2.	R.	Maliáh, Kumár Rameswár. <i>Howrah.</i>	
1891 Aug. 27.	R.	Mallik, H. C. <i>Calcutta.</i>	
1893 July 5.	R.	Mangos, C. D. <i>Calcutta.</i>	
1889 Mar. 6.	R.	Mann, John, M. A. <i>Calcutta.</i>	
1893 Mar. 1.	N.R.	Marriott, C. R., C. S. <i>Monghyr.</i>	
1892 April 6.	R.	Maynard, Surgeon-Captain F. P. <i>Calcutta.</i>	
1884 Dec. 3.	N.R.	McCabe, R. B., C. S., Deputy Commissioner. <i>Tezpur, Assam.</i>	
1886 Mar. 3.	L.M.	Mehtá, Rustomjee Dhunjeebhoy. <i>Calcutta.</i>	
1895 July 3.	N.R.	Melitus, P. J., C. S. <i>Shillong.</i>	
1884 Nov. 5.	N.R.	Middlemiss, C. S., B. A., Assistant Superintendent, Geological Survey of India. <i>Hasur, Salem Dt.</i>	
1884 Sept. 3.	R.	Miles, William Harry. <i>Calcutta.</i>	
1870 July 6.	R.	Miller, A. B., B.A., Barrister-at-Law, Official Trustee. <i>Calcutta.</i>	
1874 May 6.	N.R.	Minchin, F. J. V. <i>Aska, Ganjam.</i>	
1895 Mar. 6.	N.R.	Mitra, Rajeswar. <i>Hoshangabad.</i>	
1890 Dec. 3.	N.R.	Mitra, Varadá Charana. Joint-Magistrate. <i>Farridpur.</i>	
1876 Dec. 6.	N.R.	Mockler, Col. E., Political Agent. <i>Turkish Arabia.</i>	

Date of Election.		
1894 July 4.	R.	Moir, Surgeon-Captain D. M., I. M. S. <i>Calcutta.</i>
1886 May 5.	N.R.	Molesworth, Capt. E. H. <i>Skillong.</i>
1895 July 3.	N.R.	Monohan, J. G., C. S. <i>Sibsagar.</i>
1864 Nov. 2.	N.R.	Muir, J. W., M. A., C. S. <i>Jaunpur.</i>
1885 July 1.	R.	Mukerjea, Nilmani, Principal, Sanskrit College. <i>Calcutta.</i>
1892 Mar. 2.	R.	Mukerjea, Nrisinha Chundra. <i>Calcutta.</i>
1892 Dec. 7.	R.	Mukerjea, Panchanan. <i>Calcutta.</i>
1867 Mar. 6.	R.	Mukerjea, The Hon. Rájá Pearimohan, M. A., C. S. I. <i>Uttarpara.</i>
1894 Aug. 30.	R.	Mukerjee, Sibnarayan. <i>Uttarpara.</i>
1890 July 2.	R.	Mukharji, T. N. <i>Calcutta.</i>
1886 May 5.	R.	Mukhopádhya, Asutosh, M.A., D.L. F.R.A.S., F.R.S.E. <i>Calcutta.</i>
1887 May 4.	A.	Munro, Thomas R. <i>Europe.</i>
1885 June 3.	N.R.	Naemwoollah, Maulvie, Deputy Magistrate. <i>Moradabad.</i>
1887 June 1.	N.R.	Narain, Ráo Govind Ráo. <i>Allahabad.</i>
1881 Nov. 2.	R.	Nicéville, L. de., F.E.S. <i>Calcutta.</i>
1889 Aug. 29.	L.M.	Nimmo, John Duncan. <i>Calcutta.</i>
1887 April 6.	F.M.	Noetling, Fritz, Ph. D. <i>Europe.</i>
1893 Feb. 1.	R.	Nolan, P., C. S. <i>Calcutta.</i>
1894 June 6.	N.R.	Nomani, Shams-ul-ulama Maulvie Muhammad, Professor of Arabic in the Muhammadan Oriental College. <i>Aligarh.</i>
1892 Oct. 27.	N.R.	Norvill, Dr. Frederic H. <i>Dibrugarh.</i>
1885 Feb. 4.	R.	Nyáyaratna, Mahámahopádhya Mahesachandra, C. I. E. <i>Calcutta.</i>
1895 July 3.	R.	Oldham, C. E. A. W., C. S. <i>Calcutta.</i>
1879 Aug. 28.	N.R.	Oldham, Brigade-Surgeon C. F., F. E. G. S. <i>Almora.</i>
1883 Dec. 1.	N.R.	Oldham, R. D., A. R. S. M., F. G. S., Deputy Superintendent, Geological Survey of India. <i>Darjeeling.</i>
1883 Aug. 30.	N.R.	Oliver, Edw. Emmerson, M. I. C. E. <i>Amballa.</i>
1887 July 6.	N.R.	Oung, Moug Hla. <i>Rangoon.</i>
1880 Aug. 4.	L.M.	Pandia, Pandit Mohanlál Vishnulál, F. T. S., Prime Minister, Partabgarh State. <i>Rajputna via Mand-saur.</i>
1880 Jan. 7.	N.R.	Pargiter, Frederick E., B. A., C. S. <i>Cuttack.</i>
1862 May 7.	L.M.	Partridge, Surgeon-Major Samuel Bowen, M. D. <i>Europe.</i>
1871 Dec. 6.	N.R.	Peal, S. E. <i>Sibsagar, Assam.</i>

Date of Election.		
1873 Aug. 6.	R.	Pedler, Alexander, F. R. S., Bengal Education Service. <i>Calcutta.</i>
1888 June 6.	L.M.	Pennell, Aubray Percival, B. A., C. S. <i>Rangoon.</i>
1881 Aug. 25.	R.	Percival, Hugh Melville, M. A., Bengal Education Service. <i>Calcutta.</i>
1877 Aug. 1.	N.R.	Peters, Surgeon-Major C. T., M. B. <i>Bijapur, Bombay.</i>
1889 Nov. 6.	N.R.	Phillott, Capt. D. C. <i>Edwardesabad.</i>
1889 Mar. 6.	R.	Prain, David, M. A., M. B., L. E. C. S., I. R. S. E., I. L. S. <i>Seebpur.</i>
1892 Aug. 3.	R.	Pramanick, Asutosh. <i>Calcutta.</i>
1889 Mar. 6.	N.R.	Prasad, Hanuman, Raes and Zemindar. <i>Chunar.</i>
1881 Feb. 2.	A.	Prideaux, Colonel Sir William Francis, B.S.C., K.C.I.E. <i>Europe.</i>
1880 April 7.	N.R.	Rai, Bipina Chandra, B. L. <i>Noakhali.</i>
1895 Aug. 29.	N.R.	Rai, Jatindranath, M. A., B. L. <i>Baranagar.</i>
1894 Aug. 30.	R.	Ranking, Surgeon-Lieutenant-Colonel George, M.D. <i>Calcutta.</i>
1895 Aug. 7.	R.	Ray, Mahendranath, M. A., B. L. <i>Howrah.</i>
1887 May 4.	R.	Ráy, Prasannakumár, D. SC., (Lond. and Edin.) Professor, Presidency College. <i>Calcutta.</i>
1895 Aug. 29.	R.	Richardson, T. W., C. S. <i>Calcutta.</i>
1884 Mar. 5.	R.	Risley, H. H., B. A., C. S., C. I. E. <i>Calcutta.</i>
1889 June 5.	R.	Rowe, F. J., M. A., Bengal Education Service. <i>Calcutta.</i>
1888 June 6.	R.	Roy, Kumár Devendro Nárayán. <i>Calcutta.</i>
1890 Mar. 5.	N.R.	Roy, Mahárájá Girjanath. <i>Dinagapore.</i>
1895 Mar. 6.	R.	Roy, P. C., Bengal Education Service. <i>Calcutta.</i>
1888 June 6.	R.	Roy, Peary Mohun. <i>Calcutta.</i>
1885 Mar. 4.	R.	Rustomjee, H. M. <i>Calcutta.</i>
1889 June 5.	N.R.	Sadler, Major J. Hayes, B. S. C. <i>Muscat.</i>
1893 Aug. 2.	R.	Samajpati, Suresh Chundra. <i>Calcutta.</i>
1887 June 1.	N.R.	Sandberg, The Rev. Graham, B. A., Barrister-at-Law, Inner Temple. Chaplain. <i>Subathu.</i>
1867 April 3.	R.	Sarkár, Dr. Mahendralál, C. I. E. <i>Calcutta.</i>
1885 Mar. 4.	R.	Sarvádhibikári, Rájumár, Rai Bahádúr. <i>Calcutta.</i>
1893 Jan. 11.	L.M.	Scindia, His Highness the Maharajah.
1874 July 1.	R.	Scully, Dr. John, F. C. S. <i>Calcutta.</i>
1886 Mar. 3.	N.R.	Sen, Hirálal, Excise Department. <i>Durbhanga.</i>
1885 April 1.	R.	Sen, Narendranáth. <i>Calcutta.</i>
1885 April 1.	R.	Sen, Yadunáth. <i>Calcutta.</i>
1885 Feb. 4.	R.	Shástri, Pandit Haraprasád, M. A. <i>Calcutta.</i>
1891 June 3.	N.R.	Shillingford, Frederick Alexander. <i>Purneah.</i>
1889 Nov. 6.	N.R.	Simpson, Edmund James, L. R. C. P. E., F. L. P. S. G., L. M. G. E., Civil Surgeon. <i>Rai Bareilly.</i>
1887 April 6.	R.	Simpson, Dr. W. J., Health Officer. <i>Calcutta.</i>

Date of Election.		
1869 Feb. 3.	N.R.	Singh, Mahámahopádhya Sirdár Sir Attar, Bahádur, K. C. I. E., M. V. F., Chief of Bhadour. <i>Ludiana.</i>
1893 Mar. 1.	N.R.	Singh, Maharajah Kumara Sirdar Bharat, C. S. <i>Rai Bareilly.</i>
1880 June 2.	N.R.	Singh, Thákur Garuradhawaya Prasád, Rájá of Beswan. <i>Beswan Fort, Aligarh.</i>
1878 Oct. 4.	N.R.	Singh, Rájá Lachman. <i>Agra.</i>
1895 Aug. 29	R.	Singh, Lachmi Náráyan, M. A., B. L. <i>Calcutta.</i>
1877 June 6.	N.R.	Singh, H. H. the Hon. Maharaja Sir Luchmessur, Bahádur, K. C. I. E. <i>Darbhanga.</i>
1892 Mar. 2.	L.M.	Singh, The Hon. Raja Oodaypratab. <i>Binga.</i>
1889 Aug. 29.	N.R.	Singh, H. H. Prabhunarain, Bahádur, Mahárájá of Benares.
1859 Aug. 3.	N.R.	Singh, H. H. the Hon. Maharaja Pratap Narain. <i>Ajodhya, Oudh.</i>
1895 Aug. 29	N.R.	Singh, Rám Din. <i>Bankipore.</i>
1889 Nov. 6.	N.R.	Singh, The Hon. Rájá Rameshwara, Bahádur. <i>Darbhanga.</i>
1894 Feb. 7.	N.R.	Singh, H. H. Raja Vishwanath, Bahadur, Chief of Chhatarpur.
1859 Aug. 3.	R.	Siñha, Balásichánd. <i>Calcutta.</i>
1893 April 5.	N.R.	Siñha, Raja Bhupendra, Bahadur, Raja of Bijoypur. <i>Mirzapore.</i>
1894 July 4.	N.R.	Siñha, Kunwar Kushal Pal, M. A. <i>Narki P. O. Agra District.</i>
1872 Aug. 5.	A.	Skrefsrud, The Rev. L. O. <i>Europe.</i>
1891 Dec. 2.	A.	Smith, A. Mervyn, C. E., F. S. A. <i>Europe.</i>
1874 June 3.	N.R.	Smith, Vincent Arthur, C. S. <i>Gorakhpur.</i>
1891 Aug. 27.	N.R.	Stein, Dr. M. A. <i>Lahore.</i>
1895 July 5	N.R.	Steinberg, A. F., C. S. <i>Rungpore.</i>
1864 Aug. 11.	R.	Swinhoe, W., Attorney-at-Law. <i>Calcutta.</i>
1868 June 3.	R.	Tagore, The Hon. Mahárájá Sir Jotendra Mohun, Bahádur, K. C. S. I. <i>Calcutta.</i>
1893 Aug. 31.	N.R.	Tate, G. P., Survey of India. <i>Karachi.</i>
1865 Sept. 6.	A.	Tawney, C. H., M. A., C. I. E. <i>Europe.</i>
1884 May 5.	N.R.	Taylor, W. C., Settlement Officer. <i>Khurda.</i>
1878 June 5.	N.R.	Temple, Major. R. C., S. C. <i>Rangoon.</i>
1875 June 2.	N.R.	Thibant, Dr. G., Professor, Muir Central College. <i>Allahabad.</i>
1886 Aug. 4.	R.	Thomas, Robert Edmond Skyring. <i>Calcutta.</i>
1847 June 2.	L.M.	Thuillier, Major-Genl. Sir Henry Edward Landor E. A., C. S. I., F. R. S. <i>Europe.</i>
1889 Mar. 6.	A.	Thuillier, Colonel. H. R., B. E., Surveyor-General of India. <i>Europe.</i>
1891 Aug. 27.	N.R.	Thurston, Edgar. <i>Madras.</i>

Date of Election.		
1871 April 5.	F.M.	Trefftz, Oscar. <i>Europe.</i>
1861 June 5.	L.M.	Tremlett, James Dyer, M. A., C. S. <i>Europe.</i>
1893 May 3.	N.R.	Vandja, Raja Ram Chandra. <i>Mayurbhanga, District Balasore.</i>
1890 Feb. 5.	N.R.	Venis, Arthur, M. A., Former Boden Sanskrit Scholar, Oxford., Principal, Sanskrit College, Benares., Professor, Queen's College. <i>Benares.</i>
1885 May 6.	R.	Verdean, Ivan. <i>Calcutta.</i>
1895 Dec. 4.	R.	Vidyabhushan, Harimohan. <i>Calcutta.</i>
1894 Sept. 27.	L.M.	Vost, Surgeon-Captain William. <i>Peshawar.</i>
1895 July 5.	N.R.	Waddell, Dr. L. A. <i>Darjeeling</i>
1889 Nov. 6.	A.	Walsh, Surgeon-Captain J. H. Tull. <i>Europe.</i>
1865 May 3.	R.	Waterhouse, Col. James, B. S. C., Assistant Surveyor-General, Survey of India. <i>Calcutta.</i>
1887 Oct. 6.	N.R.	Watson, Lieut. Edward Yerbury. <i>Belgaum.</i>
1874 July 1.	R.	Watt, Dr. George, C. I. E. <i>Calcutta.</i>
1892 Aug. 3.	R.	Whitehead, The Rev. Henry. <i>Calcutta.</i>
1891 May 6.	R.	Wilson, Charles Robert, M. A., Bengal Education Service. <i>Calcutta.</i>
1892 Jan. 6.	R.	Woodburn, The Hon. J., C. S. <i>Calcutta.</i>
1894 Sept. 27.	R.	Woodroffe, John George, Barrister-at-Law. <i>Calcutta.</i>
1873 Aug. 6.	A.	Woodthorpe, Col. Robert Gossett, C. B., R. E. <i>Europe.</i>
1894 Aug. 30.	N.R.	Wright, Henry Nelson, C. S. <i>Allahabad.</i>



## SPECIAL HONORARY CENTENARY MEMBERS.

Date of Election.	
1884 Jan. 15.	Dr. Ernst Haeckel, Professor in the University of <i>Jena</i> .
1884 Jan. 15.	Charles Meldrum, Esq., M. A., F. R. S. <i>Mauritius</i> .
1884 Jan. 15.	A. H. Sayce, Esq., Professor of Comp. Philology. <i>Oxford</i> .
1884 Jan. 15.	Monsieur Emile Senart, Member of the Institute of France. <i>Paris</i> .
1884 Jan. 15.	Sir Monier Monier-Williams, <i>Knt.</i> , K. C. I. E., M. A., D. C. E., LL. D., Boden Prof. of Sanskrit. <i>Oxford</i> .

## HONORARY MEMBERS.

1848 Feb. 2.	Sir J. D. Hooker, K. C. S. I., C. B., M. D., D. C. L., F. R. S., F. G. S. <i>Kew</i> .
1860 Mar. 7.	Professor Max Müller. <i>Oxford</i> .
1860 Nov. 7.	Dr. Albrecht Weber. <i>Berlin</i> .
1875 Nov. 3.	Dr. O. Böhtlingk. <i>Leipzig</i> .
1879 June 4.	Prof. E. B. Cowell, D. C. L. <i>Cambridge</i> .
1879 June 4.	Dr. A. Günther, V. P. R. S. <i>London</i> .
1879 June 4.	Dr. J. Janssen. <i>Paris</i> .
1879 June 4.	Prof. P. Regnaud. <i>Lyons</i> .
1881 Dec. 7.	Lord Kelvin, D. C. L. <i>Glasgow</i> .
1883 Feb. 7.	W. T. Blanford, Esq., A. R. S. M., F. R. S., F. G. S., F. R. G. S., F. Z. S. <i>London</i> .
1883 Feb. 7.	Alfred Russell Wallace, Esq., F. L. S., F. R. G. S. <i>Parkstone, Dorsetshire</i> .
1894 Mar. 7.	Sir William Henry Flower, K. C. B., D. C. L. <i>London</i> .
1894 Mar. 7.	Dr. Edward Frankland, D. C. L., F. R. S. <i>Reigate</i> .
1894 Mar. 7.	Sir George Gabriel Stokes, Bart, F. R. S. <i>Cambridge</i> .
1894 Mar. 7.	Mahámahopádhyaaya Chandra Kanta Tarkalankara. <i>Calcutta</i> .
1894 Mar. 7.	Professor Theodor Noeldeke. <i>Strassburg</i> .
1894 Mar. 7.	Dr. Reinhold Rost, C. I. E., LL. D. <i>London</i> .
1895 June 5.	Dr. G. Bühler. <i>Vienna</i> .
1895 June 5.	Lord Rayleigh. <i>London</i> .
1895 June 5.	Lt.-Genl., R. Strachey. <i>London</i> .
1895 June 5.	C. H. Tawney, M. A., C. I. E. <i>London</i> .

## CORRESPONDING MEMBERS.

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Date of Election.	
1844 Oct. 2.	Macgowan, Dr. J. <i>Europe.</i>
1856 July 2.	Porter, The Rev. J. <i>Belfast.</i>
1862 Mar. 3.	Murray, A. <i>London.</i>
1866 May 7.	Schlagintweit, Prof. E. von. <i>Berlin.</i>

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## ASSOCIATE MEMBERS.

1874 April 1.	Lafont, Fr. E., s. J., c. i. e. <i>Calcutta.</i>
1875 Dec. 1.	Bate, The Rev. J. D. <i>Allahabad.</i>
1875 Dec. 1.	Abdul Hai, Maulvie. <i>Calcutta.</i>
1882 June 7.	Giles, Herbert. <i>Europe.</i>
1883 Feb. 7.	Rodgers, C. J. <i>Amriisar.</i>
1884 Aug. 6.	Moore, F., F. E. S., F. L. S. <i>London.</i>
1885 Dec. 2.	Führer, Dr. A. <i>Lucknow.</i>
1886 Dec. 1.	Dás, Saratchandra., c. i. e. <i>Calcutta.</i>
1892 April 6.	Samasrami, Satyavrata. <i>Calcutta.</i>
1892 Dec. 7.	Brühl, P. J. <i>Seebpúr.</i>

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LIST OF MEMBERS WHO HAVE BEEN ABSENT FROM  
INDIA THREE YEARS AND UPWARDS.\*

\* *Rule 40.*—After the lapse of 3 years from the date of a member leaving India, if no intimation of his wishes shall in the interval have been received by the Society, his name shall be removed from the List of Members.

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The following members will be removed from the next Member List of the Society, under the operation of the above Rule:—

Dr. E. H. Brown.  
 Dr. H. Martyn Clark.  
 Eustace John Kitts, Esq., c. s.  
 Colonel Sir William Francis Prideaux, k. c. i. e.  
 A. Mervyn Smith, Esq., c. e.

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LOSS OF MEMBERS DURING 1895.

BY RETIREMENT.

Babu Gonesh Chunder Chunder.  
 E. C. Cotes, Esq.  
 Babu Hem Chandra Gosvámí.  
 A. S. Lovelock, Esq.  
 P. Sundaram Pillay, Esq.  
 Dr. O. C. Raye.  
 F. B. Shawe, Esq.

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BY DEATH.

*Ordinary Members.*

V. Ball, Esq. (Non-Subscribing Member)  
 H. H. the Maharaja, of Johore.  
 The Rev. D. G. Latham-Browne.  
 A. M. Nash, Esq.

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*Corresponding Members.*

Dr. R. Götsche.  
 A. Von Krämer, Esq.

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*Honorary Members.*

Professor Hermann, L. E. Helmholtz.  
 Prof. T. H. Huxley.  
 M. Louis Pasteur.  
 Major-Genl. Sir H. C. Rawlinson.  
 Prof. Rudolf von Roth.

BY REMOVAL.

*Under Rule 38.*

Dr. J. R. Adie.  
A. Constable, Esq.  
Dr. G. M. Giles.  
G. Hughes, Esq.  
Babu Brij Bhukan Lal.  
J. Bridges Lee, Esq.  
Pandit Jwala Prasad.  
Babu Kally Prosonno Sen-Gupta.  
N. F. F. Smith Esq.  
Carr Stephen, Esq.  
H. N. Thompson, Esq.

*Under Rule 40.*

Lieutenant-Colonel Henry Wilberforce Clarke.  
Walter Henry Parker Driver, Esq.  
Philip Lake, Esq.  
William Lutley Sclater, Esq.  
Dr. W. H. Solf.

[APPENDIX.]

ABSTRACT STATEMENTS  
OF  
RECEIPTS AND DISBURSEMENTS  
OF THE  
ASIATIC SOCIETY OF BENGAL  
FOR  
THE YEAR 1895.

# STATEMENT

## *Asiatic Society*

Dr.

				Rs.	As.	P.	Rs.	As.	P.
<b>To ESTABLISHMENT.</b>									
Salaries	...	...	...	3,118	13	0			
Commission	...	...	...	385	8	6			
Pension	...	...	...	48	0	0			
				-----			3,552	5	6
<b>To CONTINGENCIES.</b>									
Stationery	...	...	...	133	6	6			
Lighting	...	...	...	33	0	0			
Taxes	...	...	...	819	0	0			
Postage	...	...	...	502	4	9			
Freight	...	...	...	20	14	0			
Meeting	...	...	...	78	0	0			
Miscellaneous	...	...	...	306	6	9			
				-----			1,893	0	0
<b>To LIBRARY AND COLLECTIONS.</b>									
Books	...	...	...	1,027	11	11			
Local Periodicals	...	...	...	16	0	0			
Binding	...	...	...	581	12	0			
Furniture	...	...	...	79	13	0			
				-----			1,705	4	11
<b>To PUBLICATIONS.</b>									
Journal, Part I	..	...	...	3,036	5	0			
Journal, Part II	...	...	...	1,537	9	6			
Proceedings	...	...	...	1,028	9	0			
				-----			5,600	7	6
To Printing charges of Circulars, Receipt-forms, &c.				.....			139	4	0
„ Personal Account (Writes off and Miscellaneous)				.....			1,015	2	6
<b>To EXTRAORDINARY EXPENDITURE.</b>									
Auditor's fee	...	...	...	.....			100	0	0
Registration fees of the Society from 1877 to 1895				.....			95	0	0
being 19 years @ 5/ each				.....			95	0	0
			To Balance	...	.....		1,49,785	11	9
				-----			1,49,785	11	9
<b>Total Rs.</b>				...	.....		1,63,886	4	2
				-----			1,63,886	4	2

No. 1.  
of Bengal.

## Cr.

			Rs.	As.	P.	Rs.	As.	P.
By Balance from last report ...	...	...	.....			1,43,585	1	1

## BY CASH RECEIPTS.

Publications sold for cash ...	...	...	548	14	2			
Interest on Investments ...	...	...	5,307	0	0			
Rent of two rooms on the ground floor of the Society's Buildings ...	...	...	780	0	0			
Allowance from Government of Bengal for the publication of Anthropological and Cognate Subjects			2,000	0	0			
Ditto ditto Chief Commissioner of Assam ...			1,000	0	0			
Ditto ditto Government of Madras			500	0	0			
Miscellaneous ...	...	...	115	3	9			
						10,249	1	11

## BY PERSONAL ACCOUNT.

Compounding fees ...	...	...	300	0	0			
Admission fees ...	...	...	816	0	0			
Subscriptions ...	...	...	7,470	0	0			
Sales on credit ...	...	...	1,446	2	0			
Miscellaneous ...	...	...	19	15	2			
						10,052	1	2

Total Rs. ...	.....		1,63,886	4	2
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C. LITTLE,  
Honorary Secretary and Treasurer,  
Asiatic Society of Bengal,

Examined and found correct.

MEUENS, KING & SIMSON,

Auditors.

## STATEMENT

### *Oriental Publication Fund in Account*

---

Dr.

				Rs.	As.	P.	Rs.	As.	P.	
<b>To CASH EXPENDITURE.</b>										
Printing charges	...	...	...	4,877	11	0				
Editing charges	...	...	...	2,272	8	0				
Salaries	...	...	...	1,224	0	0				
Freight	...	...	...	20	14	0				
Stationery	...	...	...	15	7	0				
Postage	...	...	...	262	14	6				
Commission on collecting bills	...	...	...	38	1	6				
Contingencies	...	...	...	20	3	6				
Advertisement	...	...	...	24	0	0				
							8,755	11	6	
To PERSONAL ACCOUNT (Writes off and Miscellaneous)				.....				1	2	0
Balance	...			.....			10,988	13	0	
Total Rs.							19,745 10 6			



## No. 2.

*with the Asiatic Society of Bengal.*

## Cr.

			Rs.	As.	P.	Rs.	As.	P.
By Balance from last report	...	...	.....			8,368	9	9
<b>BY CASH RECEIPTS.</b>								
Government allowance	...	...	9,000	0	0			
Publications sold for cash	...	...	663	13	3			
Advances recovered	...	...	64	5	0			
						9,728	2	3
<b>BY PERSONAL ACCOUNT.</b>								
Sales on credit	...	...	.....			1,648	14	6
			Total Rs. ...			19,745 10 6		

C. LITTLE,

*Honorary Secretary and Treasurer,**Asiatic Society of Bengal.*

Examined and found correct.

MEUGENS, KING &amp; SIMSON,

*Auditors.*

**STATEMENT**  
*Sanskrit Manuscript Fund in Account*

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Dr.

				Rs.	As.	P.	Rs.	As.	P.
<b>To CASH EXPENDITURE.</b>									
Salaries	...	...	...	1,236	0	0			
Travelling charges	...	...	...	484	2	0			
Purchase of manuscripts	...	...	...	767	9	0			
Postage	...	...	...	52	5	6			
Contingencies	...	...	...	225	15	0			
							2,765	15	6
			<b>Balance</b>	...	..	...	6,279	15	4
			<b>Total Rs.</b>	...	.....	.....	9,045	14	10

No. 3.

*with the Asiatic Society of Bengal.*

Cr.

				Rs.	As.	P.
By Balance from last report ...	...	...	.....	5,844	14	10
<b>BY CASH RECEIPTS.</b>						
Government allowance ...	...	...	.....	3,200	0	0
<b>BY PERSONAL ACCOUNT.</b>						
Sales on credit ...	...	...	.....	1	0	0
Total Rs. ...				9,045 14 10		

C. LITTLE,  
*Honorary Secretary and Treasurer,*  
*Asiatic Society of Bengal.*

Examined and found correct.

MEUGENS, KING &amp; SIMSON,

*Auditors.*

# STATEMENT

## *Personal*

Dr.

		Rs.	As.	P.
To Balance from last report ...	...	.....	4,909	15 5
<b>To CASH EXPENDITURE.</b>				
Advances for purchase of Sanskrit MSS., &c. ...	...	.....	627	3 6
To Asiatic Society ...	...	10,052	1	2
„ Oriental Publication Fund ...	...	1,648	14	6
„ Sanskrit MSS. Fund ...	...	1	0	0
		11,701	15	8

<b>Total Rs. ...</b>	.....		17,239	2 7
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No. 4.

*Account.*

Cr.

			Rs.	As.	P.	Rs.	As.	P.
By Cash Receipts ...	...	...	...	11,418	15	7		
„ Asiatic Society	...	...	...	1,015	2	6		
„ Oriental Publication Fund	...	...	...	1	2	0		
							12,435	4 1

By Balance.	Due to the Society.			Due by the Society.				
	Rs.	As.	P.	Rs.	As.	P.		
Members ...	4,475	15	7	206	9	2		
Subscribers ...	...	...	...	88	10	6		
Employés ...	0	...	...	250	...	...		
Agents ...	169	2	6	...	...	...		
Miscellaneous	838	8	6	164	8	5		
	5,513	10	7	709	12	1		
							4,803	14 6

Total Rs. ... ..

17,239 2 7

C. LITTLE,  
*Honorary Secretary and Treasurer,*  
*Asiatic Society of Bengal.*

Examined and found correct.

MEUGENS, KING & SIMSON,  
*Auditors.*

## STATEMENT

*Invest*

Dr.

		Nominal.			Actual.		
		Rs.	As.	P.	Rs.	As.	P.
To Balance from last report	...	...	1,47,700	0 0	1,47,651	8 6	
„ Cash	...	...	11,600	0 0	12,372	2 9	
<b>Total Rs.</b>	...	...	<b>1,59,300</b>	<b>0 0</b>	<b>1,60,023</b>	<b>11 3</b>	

FUNDS.*	PERMANENT.						TEMPORARY.						TOTAL OF ACTUALS.		
	Nominal.			Actual.			Nominal.			Actual.					
	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.
Asiatic Society	...	1,39,500	0 0	1,39,224	0 0	18,500	0 0	19,503	14 6	1,58,727	14 6				
Trust Fund	...	1,300	0 0	1,295	12 9	.....	0 0	.....	0 0	1,295	12 9				
		1,40,800	0 0	1,40,519	12 9	18,500	0 0	19,503	14 6	1,60,023	11 3				

## STATEMENT

*Trust*

Dr.

		Rs.	As.	P.
To Pension	...	...	48	0 0
„ Balance	...	...	1,343	3 10
<b>Total Rs.</b>	...	...	<b>1,391</b>	<b>3 10</b>

No. 5.

*ments.*


---

		Cr.								
		Nominal.			Actual.					
		Rs.	As.	P.	Rs.	As.	P.			
By Balance*	... ..	...	...	...	1,59,300	0	0	1,60,023	11	3
<b>Total Rs.</b>					1,59,300	0	0	1,60,023	11	3

C. LITTLE,  
*Honorary Secretary and Treasurer,*  
*Asiatic Society of Bengal.*

Examined and found correct.

MEUGENS, KING & SIMSON,  
*Auditors.*

No. 6.

*Fund.*


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		Cr.					
					Rs.	As.	P.
By Balance from last report	... ..	...	...	...	1,343	3	10
„ Interest on Investments	... ..	...	...	...	48	0	0
<b>Total Rs.</b>					1,391	3	10

C. LITTLE,  
*Honorary Secretary and Treasurer,*  
*Asiatic Society of Bengal.*

Examined and found correct.

MEUGENS, KING & SIMSON,  
*Auditors.*

## STATEMENT

*Cash*

Dr.		Rs.	As.	P.
To Balance from last report	... ..	6,580	5	7
<b>RECEIPTS.</b>				
To Asiatic Society	... ..	10,249	1	11
„ Oriental Publication Fund	... ..	9,728	2	3
„ Sanskrit MSS. Fund	... ..	3,200	0	0
„ Personal Account	... ..	11,418	15	7
„ Trust Fund	... ..	48	0	0
Total Rs.		41,224	9	4

## STATEMENT

*Balance*

Dr.		Rs.	As.	P.
To Cash	... ..	3,570	2	2
„ Investments	... ..	1,60,028	11	3
„ Personal Account	... ..	4,803	14	6
Total Rs.		1,68,397	11	11



No. 7.

*Account.***Cr.**

				Rs. As. P.
EXPENDITURE.				
By Asiatic Society	...	...	...	13,085 5 11
" Oriental Publication Fund	...	...	...	8,755 11 6
" Sanskrit MSS. Fund	...	...	...	2,765 15 6
" Personal Account	...	...	...	627 3 6
" Trust Fund	...	...	...	48 0 0
" Investments	...	...	...	12,372 2 9
		By Balance	...	3,570 2 2
Total Rs.				41,224 9 4

C. LITTLE,  
*Honorary Secretary and Treasurer,*  
*Asiatic Society of Bengal.*

Examined and found correct.

MEUGENS, KING & SIMSON,  
*Auditors.*

No. 8.

*sheet.***Cr.**

				Rs. As. P.
By Asiatic Society	...	...	...	1,49,785 11 9
" Oriental Publication Fund	...	...	...	10,988 13 0
" Sanskrit MSS. Fund	...	...	...	6,279 15 4
" Trust Fund	...	...	...	1,343 3 10
Total Rs.				1,68,397 11 11

C. LITTLE,  
*Honorary Secretary and Treasurer,*  
*Asiatic Society of Bengal.*

Examined and found correct.

MEUGENS, KING & SIMSON,  
*Auditors.*









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