



Ministry of Culture
Government of India

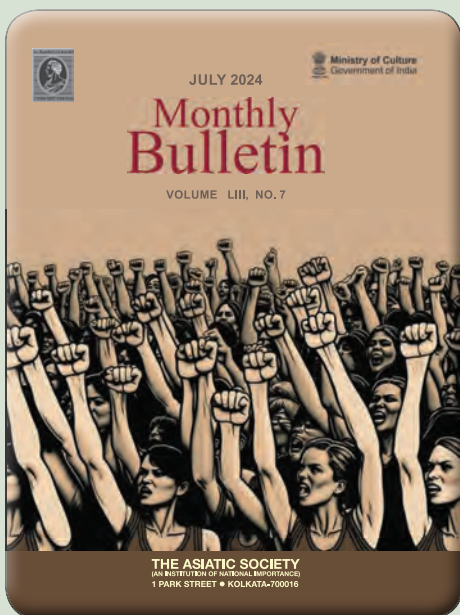
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Cover Description : Women Empowerment

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From the Desk of the General Secretary

Dear Members and Well-wishers,

You are aware that our new Hon'ble Cabinet Minister of Culture, Government of India, Shri Gajendra Singh Shekhawat and Hon'ble Minister of State (Culture), Government of India, Shri Rao Inderjit Singh, have assumed their respective offices. We congratulate them for their new assignments.

The Asiatic Society observed the World Environment Day on 5th June, 2024 where a number of speakers had taken part. A seminar was organised on 14th June, 2024 on the occasion of Death Centenary of Sukumar Ray and 100 years of publication of *Abol Tabol*. This programme was very unique for many reasons. The eminent poet and the author Shri Ray, who was otherwise popularly known as the writer for the children, was the son of Upendra Kishore Roychowdhury, a doyen in the world of printing. Sukumar Ray's son is globally acclaimed film director, Satyajit Ray. The ingenuity of Sukumar Ray was discussed through his marvelously created 'nonsense rhymes' on the one hand and analysing his scientific bent of mind on the other. The most remarkable performance was done by a group of autistic children organised by Autism Society of Bengal. On this occasion the book *Abol Tabol* was distributed to all the performers along with a group of poor students of a nearby institution. Professor Pankaj Roy, the Principal of Jogesh Chandra Choudhuri College delivered a special lecture on Rabindranath Tagore by focusing on his critical writings for the social justice and liberty of mind and freedom struggle during independence period.

A delegation from the National Security Council Secretariat had visited The Asiatic Society on 4th June, 2024. In course of discussion the General Secretary had apprised them about the status of a research project which was undertaken jointly by The Asiatic Society and Rajib Gandhi (Central) University, Arunachal Pradesh at the instance of the Eastern Command, Ministry of Defence, Government of India.

The remarkable days of the month of July are many and during the last few years we have mentioned them in the Monthly



Gajendra Singh Shekhawat

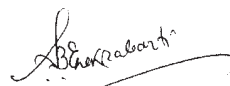


Rao Inderjit Singh

Bulletin of July in respective years. Therefore, I am not repeating them here again but I will only mention two 'first' occasions. For example, the first private Medical College in India (Belgachia Medical College, now known as R.G. Kar Medical College) was established on 05.07.1916; the first Radio Centre in India was introduced in Bombay on 23.07.1947. I will close this part with two more mentions of different natures, e.g. the women secured their rights to participate in the Indian Administrative Services on 17.07.1948; Rev. James Long was jailed on 24.07.1861 on a charge for translating in English of *Nil Darpan* (a Bengali drama on the oppressed indigo cultivators during the British Raj by Shri Dinabandhu Mitra).

Friends, while sending this note for the desk we came to know about the loss of some valuable lives due to a recently caused train mishap. The members of the Society express their condolence to the bereaved members of the families of the deceased.

Please keep well and safe.



(S. B. Chakrabarti)
General Secretary



The General Secretary is meeting with the team of NSCS led by Maj. General Rohit Sawhney on
04.06.2024



Ministry of Culture
Government of India

AN ORDINARY MONTHLY GENERAL MEETING OF
THE ASIATIC SOCIETY WILL BE HELD ON
MONDAY, 1ST JULY 2024 AT 5 P. M. AT THE
VIDYASAGAR HALL OF THE SOCIETY

MEMBERS ARE REQUESTED TO KINDLY ATTEND THE
MEETING

AGENDA

1. Confirmation of the Minutes of the last Ordinary Monthly General Meeting held on 3rd June 2024.
2. Exhibition of presents made to the Society in June 2024.
3. Notice of Intended Motion, if any, under Regulation 49(d).
4. Matters of current business and routine matters for disposal under Regulation 49(f).
5. Consideration of reports and communications from the Council as per Regulation 49(g).
6. The following paper will be read by Dr. Shankha Sanyal :
"Music, Meditation and Beyond : The Quest for Mental Well-being through the Fractal Lens of Neuro-physics"

1 Park Street, Kolkata-700016

Dated : 18.06.2024

(S B Chakrabarti)
General Secretary

Music, Meditation and Beyond : The Quest for Mental Well-being through the Fractal Lens of Neuro-physics

Shankha Sanyal

Senior Researcher, Sir C.V. Raman Centre for Physics and Music, Jadavpur University

Abstract

Brain Computer Interface or BCI, Artificial Intelligence or AI, Convolutional Neural Networks or CNN—some terms which we encounter most frequently while surfing through the internet, or while browsing through some of the latest collection of books. Will AI take over humans, shall machines dominate over mankind, are the questions which perturb many of us. While standing at this juncture of man-machine conflict, the most advanced technologists, the pioneering scientists are suggesting everybody to stand still, take a deep breath and look back to the roots. Herein lies the importance of the present work which tries to assess the effect of the oldest tools of the Indian knowledge system—music and *yoga* on the human nervous system using robust neuro-biosensors such as Electroencephalography (EEG). The development of biosensors such as EEG, ECG etc. in the later half of the twentieth century have provided us with a window to the human brain and body with which we can have precise information about the response of different types of stimuli on the human nervous system—this is essentially the

BCI method we have referred to earlier. EEG is essentially a recording of the neuro-electrical impulses arising from different areas of the brain as a result of neuronal firing under the effect of different kinds of stimulus. Chaos theory provides us with neuronal bio-markers such as Fractal Dimension (FD) which can automatically quantify different states of the brain. We have been using this parameter to study the response of human brain to different types of Indian classical *ragas*, parametrize the evolutionary feature of Tagore songs over a century, to sonify EEG signals so that you can hear the sound of one's own brain and many other studies related to music and beyond. To summarize, music in our research acts as a window with which we can have ample new and novel information about the functioning of the human brain, the neuronal connections, the excitation of a particular lobe in a specific case and several other pieces of information which were not available to use before. In the present talk, with a brief overview of the previous works, I would like to focus on the topic of the effect of a music-*yoga* intervention protocol on the overall literacy and mental well-being that we have started to do over the last 6 months or so. In the present-day scenario of the Indian subcontinent, the use of words such as "anxiety", "stress", "depression", "panic attack" has become very common among the school-going population. The new generation parents, educators alike are searching for various ways in which the issues of anxiety and depression can be tackled, more so after the onset of COVID-19 pandemic.

With this background in mind, we have devised a novel *yoga*-music intervention protocol, which includes several traditional *yogic* practices such as *Bhramari pranayam*, OM meditation, 61 point relaxation techniques couples with traditional Indian *ragas*. The talk will present new and interesting EEG data analysis from different pilot studies performed on participants of various age groups as to how the use of *yogic* techniques coupled with music can address various new age problems such as anxiety, depression etc. and in general with a combined goal to increase mental well-being. The talk will also refer to several experiments using the concept of Artificial Intelligence via CNN architectures to categorize and identify critical situations in the human brain and create an alert when the cognitive load for a particular person is beyond capacity. In a nutshell, the ultimate goal of this entire work is to make better use of machine intelligence for the ultimate well-being of mankind. Future researchers of this interesting domain will get several pointers towards the applicability and positive results of such practices.

Keywords: EEG, music, *yoga*, fractal, meditation, well-being



President's Column

Rakhaldas Bandyopadhyay – the Field Archeologist and the Historian

Rakhaldas Bandyopadhyay, born in 1885 and who died prematurely in 1930, originated from Berhampore of Murshidabad District. He graduated from Presidency college with Honours in History in 1907 and obtained his MA in History from Calcutta University in 1911. He joined the Indian Museum in 1910 as an assistant to the Archeological section and later joined the Archeological Survey of India in 1911 and was promoted to the rank of Superintending Archeologist of the Western circle in 1917. In 1924, he was transferred to the eastern circle and took part in the excavations at Paharpur. He took voluntary retirement in 1926. He was engaged in teaching in Calcutta University for some time and later joined the Benaras Hindu University in 1928 and held this post till his premature death in 1930. Affectionately known as R.D Banerjee, he has justifiably been called as a historian and trailblazer in Indian Archeology, Epigraphy and Paleography and in each of these areas his contributions are unparalleled.

A Prodigy

Describing Rakhaldas as a Prodigy, Asok kr. Bhattacharyya, in his Sahitya Academy publication of *Makers of Indian Literature: Rakhaldas Bandyopadhyay* says that Rakhaldas was baptized as a Historian just after his

arrival in Calcutta by two of the most eminent scholars of his time Mahamahopadhyay Haraprasad Shastri and Pandit Ramendra Sundar Trivedi and became a frequenter to such important places of learning as the Bangiya Sahitya Parishad, Indian Museum and The Asiatic Society of Bengal. The influence of Theodor Bloch was most pronounced over him, who was posted at the museum, as the Superintending Archeologist of Eastern Circle of the Archeological Survey of India. Bloch was one of the most outstanding scholars of Indian Epigraphy, having command over Sanskrit, Persian and Arabic inscriptions. From Haraprasad, Rakhaldas learnt Ancient Indian History and from Bloch he learnt Ancient and Medieval Indian Paleography and Epigraphy. As early as in 1919 Rakhaldas published through Calcutta University his famous monograph, *The Origin of Bengali Script* and he dedicated this work to both of them.

Even before Graduation, Rakhaldas became an acknowledged expert in the study of Ancient Inscriptions and coins. He published a number of learned papers in the prestigious Journal of the Asiatic Society of Bengal between 1906 and 1908, dealing with the identification of the Kukkutapada Vihara with Gurpa, a number of terracotta plaques

from Malaya Peninsula and the coins of Shaka Kushanas. His article on *The Skythian Period in Indian History* published in the *Indian Antiquary*, volume 37 (1908), brought him widespread recognition. Vincent Smith in his famous work on the *Early History of India*, accepted his views on the Shaka Kushanas and his expertise in studying inscriptions and coins was recognized by all concerned peoples. These all happened when Rakhaldas was yet to reach his mid twenties. As it has been said, 'no Indian Historian, before or after him, attained similar recognition at such an early age.'

Rakhaldas symbolized in his own person the rich heritage of Indian archaeology. Even before that, in the middle of the nineteenth century, epoch making archaeological discoveries were unearthing new horizons. The ancient civilizations of Egypt and Mesopotamia were discovered through unearthing of ancient remains by the archaeologists. As it has been said, by the sixth decade of the 19th century, the earlier tradition of writing history solely depending on literary sources such as Gibbon's *The Decline and Fall of the Roman Empire* was brought to an end by Theodor Mommsen, who in his magnum opus *The History of Rome* initiated a new trend of historical study by critically combining literary and archaeological information.

In India, as far as archaeological inventions are concerned, the central place in this regard was occupied by the Asiatic Society. Scholars engaged in researches at the Asiatic Society started publishing texts in oriental languages and have them translated in English. They were also keen in collecting and examining ancient inscriptions, coins and images found through explorations in various parts of the Indian subcontinent. The deciphering of Brahmi scripts in 1837 by James Prinsep of the Asiatic Society was a landmark in Indian archaeology. James Fergusson made pioneering studies on Indian monuments. In 1861, when the Archaeological Survey of

India was founded under the leadership of James Cunningham, the Indian Archeology received its real boost. His extensive surveys of ancient Buddhist sites, made following the itineraries of Fa Hien and Hueng Tsang, opened up unlimited possibilities. Rakhaldas frequented to the Asiatic Society and the Indian Museum and had access to their rich archaeological collection. Being advised by Haraprasad, he met Theodor Bloch, who at that time was posted at the Indian Museum after his successful excavation of the city of Pataliputra at Bulandshahar in Patna. This was how Rakhaldas came to the field of archeology through history.

The Mohenjodaro Episode

In 1910, Rakhaldas was appointed an assistant of the archaeological section of the Indian Museum. John Marshall, the Director General of the Archaeological Survey of India, was so much impressed by Rakhaldas's scholarship and competence that he made him an Assistant Superintendent of the Survey by the end of next year. He was promoted to the post of the Superintending Archaeologist of the Western Circle in 1917. Next six years, he served the Survey from its Pune office. He discovered quite a number of important archaeological monuments and made arrangements for their people protection and preservation. His monographs on the monuments of Badami, Triputi and Bhumara published by the Survey as *Memoirs* are eloquent testimonies of his discoveries in the Western Circle.

During this time, Rakhaldas's most momentous archaeological discovery took place. In 1922, when he was surveying the Larkana district of Sind, he had an intention to discover the Victory alters left behind by Alexander, the Greek conqueror, before departing from the region. In course of this survey, he visited the mound called Mohenjodaro, meaning the hill made of dead

bodies. He immediately started excavating the site. But he could not proceed far due to the approaching of the inhospitable summer and lack of financial provision. But, thanks to his genius, by examining a few objects, unearthed at the site, he could ascertain their crucial importance as an evidence of a highly developed pre-historic civilisation.

The discovery of Mohenjodaro by Rakhaldas made him a legend. It is not that Rakhaldas was the first to have noticed that site. In 1872-90, Alexander Cunningham found at Harappa some prehistoric artifacts, but failed to realise their significance. D R Bhandarkar came to know about the ancient mound of Mohenjodaro but could not recognize its antiquity. The prominence of Rakhaldas lies in the fact that though he was primarily engaged in an excavation to unearth a Buddhist site, by examining the unearthed remains, he succeeded in identifying them as objects of a pre-vedic civilisation, which was about two thousand years older than that of the Buddhist remains. Though the credit of the discovery of Mohenjodaro has been officially accredited to John Marshall, who was the Director of the Archaeological Survey of India and a part of the ruling dispensation in a colonial system, here is what John Marshall had to say on this episode in his monumental publication, *Mohenjodaro and Indus Civilization*, in the following account:

“The story of the excavation of Mohenjodaro may quickly be told. The site had long been known to the district officials of Sind and had been visited more than once by local archaeological offices, but it was not until 1922, when Mr RD Banerjee started to dig there that the prehistoric character of the remains was revealed. This was not greatly to be wondered at, for the only structures then visible were Buddhist Stupa and Monastery at the north-west corner of the site and these were built exclusively of brick taken from the older ruins, so that it was not unnatural to

infer that the rest of the site was referable to approximately the same age as the Buddhist monuments. Viz, to the early centuries of the Christian era. Indeed, when Mr. Banerjee was engaged at the task, he had no idea of finding anything prehistoric. His primary objective was to lay bare the Buddhist remains, and it was while engaged in this task that he came by chance on several seals which he recognized at once as belonging to the same classes as the remarkable seals inscribed with legends in an undecipherable script which had long been known to us from the ruins of Harappa in the Punjab. That Mr. Banerjee's find came at a singularly opportune moment, when he was specially eager to locate other sites of the same early age as Harappa. Mr. Banerjee himself was quick to appreciate the value of his of his discovery and lost no time to following it up. With the hot season rapidly approaching, Mr. Banerjee's digging was necessarily very restricted, and it is no wonder, therefore that his achievements have been put in the shade by the much bigger operations that has since been carried out . This does not, however lessen the credit due to him. His task at Mohenjodaro was far from being as simple as it may now appear. Apart from discoveries at Harappa, which he had not personally seen, nothing whatever was known of the Indus Civilization. The few structural remains of that Civilization which he unearthed were built by bricks identical with those used in the Buddhist Stupa and Monastery and bore so close a resemblance to the latter that even now it is not always easy to discriminate between them. Nevertheless, Mr. Banerjee divined and rightly divined that these earlier remains must have antedated the Buddhist structure, which were only a foot or two above them, by some two or three thousand years.”

The above account, though praiseworthy, does not explain why Rakhaldas was deprived of his prerogative as the discoverer

in continuing excavations at the prehistoric site, a privilege which Daya Ram Sahnî, the discoverer of Harappa enjoyed. Besides, Rakhaldas was barred by administrative impediment from expressing his scholarly views on his own discovery. The final report of these two outstanding discoveries was published by John Marshall himself in the *Illustrated London News* in 1924.

Rakhaldas's own publications on Mohenjodaro consist of three articles, viz Mohenjodaro (in Bengali), An Indian City Five Thousand Years Ago and Mohenjodaro – A forgotten Report, posthumously published as a monograph in 1984. From all these publications, we can ascertain the following views of Rakhaldas on the point; i) this urban civilization was founded three thousand years before the Christ, ii) it was older than the Vedic Aryan civilization, iii) this civilization was of the Chalcolithic period and its origins were somewhat connected with the Mediterranean and West Asiatic regions; iv) the founders of the civilization possibly came from the outside like the Aryans and v) the Dravidian people had something to do regarding the civilization.

Suniti Kumar Chatterjee, in his article on *Dravidian Origins and Beginnings of Indian Civilization, 1924* recorded Rakhaldas's version of the discovery of Mohenjodaro and his views regarding the connection between this civilization and that of the Sumerians, who laid the foundation of the Mesopotamian Civilization.

The hardship that Rakhaldas had to bear during his camp life at Mohenjodaro was too much for his health. After returning to Pune, he fell seriously ill. Besides, at that time he lost his beloved elder son. Being both physically and mentally weak, he took one year's leave from the Survey. He again joined Survey in 1924 but only as the Superintending Archeologist of the Eastern circle. But he was crestfallen being denied the privilege of continuing excavation at Mohenjodaro.

The Post Mohenjodaro Period

As the Superintending Archeologist of the Eastern Region, Rakhaldas was no less an enthusiast. The Survey's Annual Reports for the years 1924-25 and 1925-26 will bear that out. During this period he conducted extensive exploratory tours in Bengal and Assam and made some unique discoveries which greatly enriched the subject matter of Ancient history. The districts Rakhaldas surveyed of the pre-partition Bengal included Rangpur, Cooch Behar, Dinajpur and Rajshahi in the north, Dacca in the east, Murshidabad in the middle and Bankura in the west. In the districts of Rangpur and Dinajpur, he explored the sites of Mehashtangarh, the ancient city of Pundravardhan nagar and also such medieval centres of Mughal authority as Ghoraghat. Besides Rakhaldas's archeological explorations included the survey of Muslim monuments in the districts of Dacca and Murshidabad.

Excavations of the Paharpur temple in Rajshahi district, being abandoned by Calcutta University after a symbolic beginning, was one of Rakhaldas's great achievements. His characterization of the temple and stylistic description of the figure on terracotta plaques and the stone sculptures made in high relief, were objective and later excavation and studies broadly confirmed them. He was the first Archeologist with deep understanding of art, who made explorations in Assam and gave an appreciative view on Ancient and Medieval sculptures of the state.

The explorations, excavations and the writing of scientific reports apart, the archeologist should also be interested in conservation of the antiquities discovered and in recording their primary interpretation. Because of the influence of Theodor Bloch and Haraprashad Shastri, Rakhaldas was exceptionally equipped in interpreting archeological objects, including inscriptions, coins, images and monuments in their

broader historical context. The importance of inscriptions in reconstructing the history of India's past, especially of the Ancient and Early Medieval periods, requires no emphasis. As a result, Rakhaldas gave extreme importance on epigraphical studies. It is corroborated by the fact that in the most specialized journal on the study, *Epigraphia India*, he published more than 60 articles, each containing the description of the inscriptions as much as his reading on them. For successful epigraphist, the essential prerequisite is a thorough command over paleography, i.e., the ancient modes of writing. Rakhaldas was competent in reading both of the ancient Indian scripts namely Brahmi and Kharosthi. But his understanding of Brahmi was better than of Kharosthi. Rakhaldas's article on *The Kharosthi Alphabet* published in the *Journal of the Asiatic Society of Bengal* in 1920, testifies to his serious interest in the script. Another important work of Rakhaldas is the monograph entitled *The Origin of the Bengali Script* (1919). It was written in Bengali at the suggestion of Ramendra Sundar Trivedi. Later, on the advice of Sir Asutosh Mukherjee, he rewrote the work in English and received for it the prestigious Jubilee Research Prize from the University of Calcutta.

Rakhaldas's exposure as an Epigraphist took place as early as in 1909, the year in which *the Journal and Proceedings of the Asiatic Society of Bengal* published his article on 'Madhainagar Grant of Lakshmansena'. Rakhaldas's *Prachin Mudra* published in 1915, was one of his major contributions to Bengali literature. It was a pioneering book in Bengali on a subject which was predominantly the area of the study of the foreign scholars. The contributions in this field by such stalwarts as Alexander Cunningham, James Prinsep, Vincent Smith, R B Whitehead etc. is to be mentioned here. Rakhaldas's was the first contributor made in the field. The study of coins drew Rakhaldas's attention at the early stage of his life. As early as in 1909

he published *Notes on Indo-Scythian Coinage*, when he was a post graduate student of history. This publication endeavors and interests in various subjects continued throughout the span of his life. A life which covered only 45 years but within that span he wrote volumes and volumes. It would be sufficient to mention here that his English articles so far enlisted count about 130 and books, some of which are quite voluminous, sixteen. The academic merit of his articles would be evident from the fact that most of them were published in such prestigious journals as the *Epigraphia India*, *Indian Antiquary*, *Journal and Proceedings of The Asiatic Society of Bengal*, *Annals of Bhandarkar Oriental Research Institute*, *Journal of Bihar and Orissa Research Society* and the *Modern Review*.

Rakhaldas as a Historian, as Art Historian

Rakhaldas in the course of his career had written on almost all the periods of Indian History but his major forte was his specialization in Ancient period. *The Scythian Period of Indian History* (1908) was Rakhaldas's first publication in the time. In this monograph Rakhaldas discussed the twilight stories of the foreign rulers including the Greeks, Shakas, Pallavas and Kushans.

In the category of regional history, Rakhaldas made two voluminous contributions namely, *Banglar Itihas (vol I, 1914 & vol II, 1917)* and *the History of Orissa from the Earliest Times to the British Periods (Vol I, 1930 & Vol II, 1931)*. Besides, he also authored a monograph on *The Palas of Bengal (The Asiatic Society Memoirs, 1929)*.

The *Banglar Itihas* established Rakhaldas as a leading historian of his time. The merit of the work was that, along with Ramaprasad Chanda's *Gauda Rajmala*, it was the first scientific history of Bengal. By utilizing all available materials obtained from inscriptions and coins and critically assessing them before admitting as evidences, he introduced a

methodology in writing history, relying more on archaeological sources than the literary, which had no precedent in Bengali literature.

Rakhaldas, for whom the entire northern India constituted his area of study, knew quite a number of languages, including Prakrit, Sanskrit, Old Greek, Persian, Arabic, Hindi and old Bengali, besides English and Bengali in their modern form.

Rakhaldas's *The Age of Imperial Guptas*, which was a collection of lectures delivered in 1924 and published in 1933, showed the golden age of Indian Civilization which witnessed an unprecedented development in arts, literature and science, besides religion and philosophy.

Rakhaldas's *The History of Orissa* is the first total history of the region. While in writing the history of Bengal, Rakhaldas had to fight against the pseudo-history of the Kulapunji's, in case of Orissa he had to fight against the dominance of the Madla-panjis, the mythical account of Orissan past preserved in manuscript form in the Jagannath Temple at Puri. His *History of Orissa* was based mainly on archaeological evidence found in innumerable inscriptions. This methodology which he introduced in a sense revolutionized the very approach to writing Orissa's history.

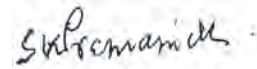
The Pre-Historic, Ancient and Hindu India was the most comprehensive work on Indian History that Rakhaldas could complete in his life time and it was published posthumously

by his son, Adrish Chandra Banerjee.

Rakhaldas's contribution in the history of ancient and early medieval Indian Art was also very substantial. His interest in this area grew at a very early age when, in 1910, he joined Lucknow Museum as a cataloguer and wrote his article on *Three sculptures in the Lucknow Museum* published in the Annual Report of the Archeological Survey of India 1909-10. That initiated a series of other publications recorded in the Memoirs and in the Annual Report of the Archeological survey of India. He made a close study of Gupta style of Temple architecture which he divided between the early Gupta, later Gupta and post Gupta. Rakhaldas's *The Age of the Imperial Gupta* was published in 1933, which was much later than Anand K. Coomerswamy's magnum opus, *History of Indian and Indonesian Art* published in 1927. In his book Rakhaldas recorded very significant differences with the approach of Anand Coomerswamy. We can conclude by saying that in this sphere of Indian Art, though Rakhaldas paid impotance to archeological dating of the Sculpture, in many of his writings, he had showed his ability to judge the merit of an art work aesthetically.

Reference

Asok K. Bhattacharyya – *Makers of Indian Literature: Rakhaldas Bandopadhyay* (Sahitya Akademi: 1999)



Swapan Kumar Pramanick
President

Calcutta's 'Barefoot Historian'

Dr. Sankar Kumar Nath

Medical Science Secretary, The Asiatic Society

Parameswaran Thankappan Nair passed away on 18 June, 2024 at about 12 noon at his residence at Chandamangalam in the district of Ernakulam at Kerala. He died at the ripe age of 91 and is survived by his wife, a son and a daughter. He had been suffering from some old age diseases for last one year, which was aggravated for last six months.

In his last days he could not even recognise his known persons.

To the scholars and Calcuttans in general he was popularly known as P. T. Nair or Nair Sahab and he established himself as a legend historian on Calcutta, of course, he was not a professional historian but his contribution in the field of history, specially Calcutta's history, made him a famous historian, no doubt.

He was called as the 'Barefoot Historian' of Calcutta because he used to wander miles after miles in and around Calcutta from every nook and corner, to collect history, story, data, materials, maps, old-building plans and necessary elements needed for his research works on Calcutta. Thus, out of his ardent and great love towards the city of Calcutta, he wrote several books on Calcutta one after another since 1970. He wrote at least 61 books to his credit mostly on Calcutta.

P. T. Nair was born on 30 April, 1933, at Manjapra near Kalady, Kerala. He passed Matriculation from Kerala and came to Calcutta in October, 1955 in search of a job. Fortunately, he had known stenography and typing, for that matter, he managed a job as Stenotypist at an office at Dalhousie Square. In his leisure time he used to purchase old books on Calcutta from the old bookshops in College Square area and made a habit to collect the clippings of news on Calcutta for his research works. He was an amazing reader



of books and for which he spent most of his times in the National Library, in The Asiatic Society, in other libraries over and above in his own library at his Calcutta residence at 82C, Kansari Para Road.

His research books are now considered as the path-breaking works on the history of Calcutta. Some of the books, he authored, are worth-mentioning here: *A History of Calcutta's Streets*, *Calcutta in the 18th century*, *Calcutta in the 17th century*, *Calcutta in the 19th century*, *South Indians in Kolkata*, *Origin of Kolkata Police*, *B.S.Kesavan: First National Librarian of India*, *James Prinsep : Life and Work*, *Hicky and his Gazette*, *Calcutta Tercentenary Bibliography*, *Indian National Songs and Symbols*, *Job Charnock: The Founder of Calcutta* and many more, indeed a colossal work.

Nair had nearly 8 thousand books in his own collections, which itself could be acclaimed as a research library. I used to attend his library regularly, for that matter, he was so kind enough to entertain me freely and talked with me for hours together about the history

of Calcutta and made no hesitation to prepare for me Xerox copies of the pages of the rare books which I needed off and on.

He used a 1964-Remington typewriter to prepare articles, but amazingly never used any mobile, T.V. or Computer.

In 1999 to 2001, Nair handed over almost all his collections to the Kolkata Municipal Corporation. These valuable books are kept in the library of the Town Hall, Calcutta.

He left Calcutta in 2018 to stay in his own house at Kerala for the rest of his life. His last book *Gandhiji in Calcutta* was published in 2019.

Mr. P. T. Nair was honoured by Burdwan University with a D.Litt. degree and also Senior Research Professor at The Asiatic Society.

We are talking today about heritage of Calcutta: we, the enthusiasts are really indebted to Late P. T. Nair in this respect. Let us not forget him.

We all are showing our heartfelt respect to his departed soul.



The Asiatic Society felicitating Sri P. T. Nair at his residence on 21 November 2018, the day before his departure from Kolkata. L to R : Dr. Bandana Mukherjee, Mrs. Sujata Mishra, Mrs. Nair, Mr. P. T. Nair and Dr. Satyabrata Chakrabarti

Kalyani— A Progressive Woman from 'Aparichita' by Rabindranath Tagore

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For centuries, women in India and all over the world have remained under male subjugation. All the world's scriptures, including The Bible, The Quoran, and Manu Smiriti, have defined the role of women, putting them in the confines of the household (Jaiswal, 2021). However, the spread of education and the influence of a few institutions and organizations have played a vital role in the emancipation of women from age-old shackles of social and domestic traumas, and some signs of awakening among women have become visible. This article attempts to study the patriarchal oppression leading to psychological emptiness in the selected short story, namely 'Aparichita', which tries to show how, ultimately, with progressive thought, self-belief, and determination, Kalyani, a woman protagonist, comes out victorious at the end.

A Nobel laureate, nationalist, and Idealist, Rabindranath Tagore's Literature portrayed female characters with spitfire personalities. Charulata, Kalyani, Binodini, Mrinal, and Giribala are a few such characters who have gained popularity in Bengali literature and media. Tagore and his short stories deal with the human mind and behavior, especially women's psychology. His female characters are anything but submissive muses to the patriarchal society. Kalyani was a revolutionist in 'Aparichita'. The story was written by Tagore in 1916. Some translator uses an English title for the story "The Unknown Woman," as the heroine, Kalyani, remains unknown to the

narrator till the end. Kalyani is such a woman who alters the course of a young man's life, which is rare in most patriarchal societies. Kalyani is a revolution in a society where a woman is always expected to change her decisions, dreams, and lifestyle.

In this tale, Kalyani is set to marry Anupam, but her father breaks off the match on the wedding day due to demands for dowry from the groom's uncle. After a few years, a guilt-ridden Anupam proposes marriage to Kalyani again. However, the independent protagonist rejects his proposal and tells him about the new direction her life has taken. Instead of letting her canceled marriage impede, Kalyani ventures into the world to find her purpose and identity. She dedicates her life to educating underprivileged women and helping them lead a life of dignity. Through Kalyani, Tagore shows a woman choosing to find meaning outside marriage without letting patriarchal traditions dictate her significance in society. Saikat Banerjee, in 2017, says that Kalyani's blooming persona reflects Tagore's vision of the emerging modern women in India. It is also the story of a father and daughter who fight for the daughter's freedom and the oppressed women in society.

Rabindranath Tagore is considered one of the pioneers of the Bengal Renaissance, which took place during the 19th century. He has given Indian literature numerous unforgettable characters, including many women. Tagore's heroines were complex and

fierce while also being flawed and vulnerable. They fought for equal status in society and refused to bow down to society's expectations in a rare way. After the invasion of India by the British, the society went through turmoil and scriptural knowledge. There were Swadeshi Andolan, freedom struggles, formal education installation over traditional gurukul, and much more. In this mist of mayhem, Bengal (both east and west) saw an upsurge of literature via the writing of Rabindranath Tagore. He is considered a feminist and a keen observer of personality in society. It is hard to imagine that Tagore framed such influential characters in an era where society was undermining females by scoring them as objects rather than humans, and Bengal was witnessing the turmoil of partition.

Tagore has always portrayed female characters in varied shades of personality as strong, independent, and nurturing. His authored novels showcase women with characteristics that can be sectioned as progressive women. From Tagore's perspective, society was regressive, but women had progressive personalities much earlier than the Western world revolution. Tagore became one of the pioneers of feminism in India. Today, in the 21st century, we see women in India struggling to find their place in a patriarchal society. The women portrayed in Tagore's stories are liked and criticized by society, but their personalities are magnetic and striking enough to leave an impression.

In 'Aparichita', Kalyani talks about her discovery of identity beyond marriage after her wedding was called off due to the greed of the groom's family. A young woman who decides to take on patriarchy and injustice after her marriage is broken off owing to dowry issues. The story also throws light on the rampant practice of dowry and the extent of colonial oppression in 19th century Bengal. It narrates that the insult she and her father had to bear in the hands of the groom's maternal uncle

led to the cancellation of the marriage. But after, she found her true calling to look at the orphaned girls. Her interactions with British government officers showed she is fearless in the face of truth. The groom contacted Kalyani to rethink the marriage proposal as he was impressed by her personality and guilt-ridden by his cowardly actions. To this, Kalyani humbly refused and suggested that she move on with her life as she had with her social work. According to her, marriage is not the ultimate goal of life for a girl. Other goals can define her, and she must make choices. Refusing a marriage proposal in times when females did not have many opportunities in society shows her mental clarity and strong willpower. She chose to be a spinster, an independent guardian of orphaned girls, and a woman with the willpower to lead her life on her terms.

In 'Aparichita', Tagore suggested an initiation from the bride's family to stop social evils like dowry. The story depicts the revolutionary and proactive thinking of a father for the welfare of her daughter. Traditionally, marriage included men making decisions and women dreaming and praying for a suitor. But here, Kalyani's character reflected an emerging modern woman of India who was bold, courageous, and assertive. Kalyani's boldness, courage, and self-assertion were uncommon among the girls during Tagore's time. Tagore's female characters faced hardship gracefully and held their heads up through their struggles. Their stories were short, but the impact was long-lasting. Through the stories, we can understand the social problems faced by women. Such issues have no specific timeline; women before this era and after had gone through such struggles. He portrayed females as insightful and capable of speaking their minds, unlike the general social norm, where females are required to keep quiet, follow social norms, and not have any opinions. For centuries,

women had to take steps and break the social rules and stereotypes to find their identity.

Tagore's portrayal of women is intricate and detailed; he does not simply portray them as a damsel in distress, the house's angels, or an evil temptress. His women are layered and present a more nuanced personality. Based on his heroines, it's seen how Tagore strived to be a feminist in the truest sense, empowering his heroines to fight for an equal status amongst the throes of 19th century patriarchy. According to the principle of feminism, women should be treated equally, irrespective of caste, color, creed, and gender. Tagore's India was awakening to such social changes. Tagore becomes one of the pioneers of feminism in India. Tagore gives all the freedom to his heroine to make her own decisions even though they initially seem insane. Only he could think of that when women were allowed to do so in ordinary households. In conclusion, women must believe they are progressive and need to take specific steps, as discussed earlier and in Tagore's Literature. Their behavior is like

poetry that needs to inspire society to bring immense change and energy for sustainability.

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সত্যের ‘প্রতিশ্রুতি’

সাগরিকা শূর

প্রকাশনা বিভাগ, দি এশিয়াটিক সোসাইটি

“নারীকে আপন ভাগ্য জয় করিবার
কেন নাহি দিবে অধিকার
হে বিধাতা?
নত করি মাথা
পথপ্রান্তে কেন রব জাগি
ক্লান্তধৈর্য প্রত্যাশার পূরণের লাগি
দৈবাগত দিনে।
শুধু শূন্যে চেয়ে রব? কেন নিজে নাহি লব চিনে
সার্থকের পথ।”

— ‘সবলা’, মহুয়া

এই ‘সার্থকের পথ’ অনুসন্ধানের অন্যতম পথিকৃৎ আশাপূর্ণা দেবী, যাঁর কলমে বারংবার উঠে এসেছে অন্তঃপুরচারিণী নারীদের অনালোকিত ইতিহাস। দীর্ঘ জীবনে আশাপূর্ণা দেবী রচনা করেছেন প্রায় ২৫০ টি উপন্যাস, বহু ছোটগল্প যার প্রায় সবই নারীজীবন ও তার সংগ্রামকে কেন্দ্র করে। এসবের মধ্যে তাঁর ড্রিলজি *প্রথম প্রতিশ্রুতি*, *সুবর্ণলতা* ও *বকুলকথা* নিঃসন্দেহে সর্বাধিক আলোচিত ও সমাদৃত। তবে এ আলোচনার পরিসর কেবল *প্রথম প্রতিশ্রুতি*-এর নায়িকা সত্যবতীকে নিয়েই।

বইটির প্রস্তাবনা অংশটিতে চোখ বোলালে লেখিকার উদ্দেশ্যটি স্পষ্ট হয়—

“বহির্বিশ্বের ভাঙাগড়ার কাহিনী নিয়ে রচিত হয় বিগতকালের ইতিহাস। আলো আর অন্ধকারের পৃষ্ঠপটে সেই ধ্বনিমুখর ইতিহাস পরবর্তীকালের জন্য সঞ্চিত রাখে প্রেরণা, উন্মাদনা, রোমাঞ্চ। কিন্তু স্তিমিত অন্তঃপুরের অন্তরালেও কি চলে না

ভাঙাগড়ার কাজ? যেখান থেকে রং বদল হয় সমাজের, যুগের, সমাজ মানুষের মানসিকতার। চোখ ফেললে দেখা যায় সেখানেও অনেক সঞ্চয়। তবু রচিত ইতিহাসগুলি চিরদিনই এই অন্তঃপুরের ভাঙাগড়ার প্রতি উদাসীন। অন্তঃপুর চিরদিনই অবহেলিত। বাংলাদেশের সেই অবজ্ঞাত অন্তঃপুরের নিভূতে প্রথম যাঁরা বহন করে এনেছেন প্রতিশ্রুতির স্বাক্ষর, এ গ্রন্থ সেই অনামী মেয়েদের একজনের কাহিনী।”

সত্যবতীর বালিকাবেলার দিকে তাকালে যেন অজান্তেই *পথের পাঁচালী*-এর দুর্গাকে মনে পড়ে। তেমনই প্রাণোচ্ছল, তেমনই প্রৈতিতে ভরপুর এক বালিকা, খানিকটা বুঝি দৌরাভ্যেও, নিয়ম পালনে যার রুচি নেই, নিয়ম ভাঙতেই যার আনন্দ।

তবে কেমন ছিল সত্যবতীর সেই মেয়েবেলা, কেমনই বা ছিল তার বেশভূষা, রকমসকম? বকুলের খাতা থেকে যে গল্প প্রাণ্ড, সেই খাতা অনুযায়ী—

“নাকে নোলক, কানে ‘সার’ মাকড়ি, পায়ে বাঁজর মল, বৃন্দাবনী-ছাপের আটহাতি শাড়ি পরা আট বছরের সত্যবতী। বিয়ে হয়ে গেছে বছর খানেক আগে - এখনও ঘরবসত হয়নি। অপ্রতিহত প্রতাপে পাড়াসুদ্ধ ছেলেমেয়ের দলনেত্রী হয়ে যথেষ্ট খেলে বেড়ায়। সত্যবতীর মা ঠাকুমা জেঠী পিসি এঁটে উঠতে পারে না ওকে।” (পৃ. ৮)

আর এই এঁটে-উঠতে-না-পারা, অদম্য সত্যবতীর চরিত্রের যে দিকটি তার মেয়েবেলা থেকেই পাঠকের দৃষ্টি আকর্ষণ করে তা নিঃসন্দেহে তার নিষ্ঠীকতা, দৃঢ়তা, যাকে হয়তো রামকালী ‘সত্যের তেজ’ বলে অভিহিত করেছেন। সঙ্গত

কারণেই সে সমাজের অনুশাসন, অর্থহীন নিয়মের বিরুদ্ধে— শৃঙ্খলের বেড়াভালকে বুড়ো আঙুল দেখিয়ে সত্যের প্রতিষ্ঠাই যেন তার লক্ষ্য, এভাবেই সে নিজেকে সার্থকনামা করে তুলবে এই যেন তার জীবনের 'ব্রত'।

স্বভাবগত সহজতার হাত ধরেই সে ঠাকুমা ও পিসিঠাকুমার বিধবামহলের দাওয়ার নিচে পৌঁছে যায় ছোঁয়া-লেপার তোয়াক্কা না করেই অথবা অবলীলায় জানিয়ে দেয় যে সে এরপর ছিপসহ মাছ ধরতে যাবে -

“সত্য ঝাঁকড়া চুলে ভরা মাথাটা ঝাঁকিয়ে বলে, “আহা! ছোটঠাকুমার কী বাক্যের ছিরি! মেয়েমানুষ মাছ ধরে না? রাঙা খুড়িমারা ধরে না? ও বাড়ির পিসিরা ধরে না?” (পৃ. ১৮)

অর্থাৎ ছোট থেকে পদে পদেই সত্যবতী তথাকথিত ‘জেন্ডার-রোল’-কে অস্বীকার করে।

সত্যবতী যে অপার মানবিকতার প্রতীক সে নিদর্শনও লেখিকা ছড়িয়ে রেখেছেন উপন্যাসের পাতায় পাতায়। সেজন্যই সকলে যখন জনৈক জটার বৌকে প্রায় মৃত বলে ঘোষণা করে আসন্ন সংস্কারকর্মের তোড়জোড় শুরু করে দেয় সত্যবতী তখনও রামকালীর ভৎসনার ভয় উপেক্ষা করে রামকালীকে অনুরোধ জানায় একটিবার হলেও জটার বৌকে পরীক্ষা করতে, যদি তার ধন্বন্তরী পিতার চিকিৎসায় অর্ধমৃত্যু বৌটি প্রাণ ফিরে পায় -

“তোমার পায়ে পড়ি বাবা, জন্মের শোধ একটু ওষুধ দাও না। আহা, বিনি চিকিৎসায় মারা যাবে জটাদার বৌ!” (পৃ. ২৪)

অর্থাৎ সেই কম বয়স থেকেই সত্যবতী সমস্ত বাধাকে অস্বীকার করে সত্যের জন্য, ন্যায়ের জন্য, লেখিকা দেখিয়ে দেন মানবিকতার জন্য সে শেষ ধাপ পর্যন্ত যাওয়ার ক্ষমতা রাখে, ইংরিজিতে যাকে বলা যায় ‘going that extra mile’. সত্যবতীর এ চরিত্রগুণের নিদর্শন পাঠক পরেও পাবেন।

এই অদম্য সাহস (মতান্তরে দুঃসাহস)-এর জোরেই সত্যবতী তার ঋজু, দোদুলপ্রতাপ বাবার সিদ্ধান্তকেও প্রশ্ন করতে সঙ্কোচ করে না। রামকালী যখন লক্ষ্মীকান্ত ব্যানার্জীর পৌত্রীকে লগ্নভ্রষ্ট

হওয়া থেকে বাঁচাবার উদ্দেশ্যে তাঁর বৈমাত্রেয় ভাই কুঞ্জবিহারীর জ্যেষ্ঠপুত্র রাসবিহারীকে তার ও তার অন্তঃসত্ত্বা স্ত্রীর পরামর্শ ব্যতীতই নিয়ে যান কন্যাদায়গ্রস্ত পিতাকে উদ্ধারের মহান সামাজিক কর্মে, তখন একমাত্র সত্যবতীই নির্ভীক কণ্ঠে বলতে পারে -

“নির্যাস বাবার অন্যাই হয়েছে।” (পৃ. ৫২)

এমনকি রামকালীর মতো দৃশু চরিত্রের সামনে দাঁড়িয়েও সত্য সতীন-যন্ত্রণার কথা তুলে ধরতে দ্বিধাগ্রস্ত হয় না।

এই নির্ভীকতা, এই দুঃসাহসিকতাই যে সত্যের চরিত্রের প্রাণকেন্দ্র তা ধরা রয়েছে ঔপন্যাসিকের কথাতেই -

“সত্য যে সমস্ত সখী-সঙ্গিনীদের প্রাণের দেবতা, তার প্রধান কারণ বোধহয় সত্যের এই নির্ভীকতা। নিজের মধ্যে যে গুণ নেই, যে সাহস নেই, সে গুণ সে সাহস অন্যের মধ্যে দেখতে পেলে মোহিত হওয়া মানুষের স্বভাবধর্ম। নির্ভীকতা ব্যতীত আরও কত গুণ আছে সত্যের। খেলাধুলোর ব্যাপারে সত্যের উদ্ভাবনী শক্তির জুড়ি নেই, বল আর কৌশল দুই-ই তার অন্যের চাইতে একশ’ গুণ বেশি।...

এর ওপর আবার পয়ার বাঁধা।” (পৃ. ৪৫)

তবে শুধু পয়ার বাঁধাই নয়, সত্যবতী যে লুকিয়ে ভয়েদের বই থেকে বিদ্যাচর্চাও করে, তাও একদিন প্রকাশ হয়ে পড়ে, জানাজানি হতেই সত্য পেশ করে তার অকাটা যুক্তি -

“মেয়েমানুষেরা যে রাতদিন ঝগড়া কোঁদল করছে, যাকে তাকে গালমন্দ শাপমনি্য করছে, তাতে পাপ হয় না, আর বিদ্যে শিখলে পাপ হবে? বলি স্বয়ং মা সরস্বতী নিজে মেয়েমানুষ নয়? সকল শাস্ত্রের সার শাস্ত্র বেদ মা সরস্বতীর হাতে থাকে না?” (পৃ. ১২৬)

তার এই যুক্তিবাদী মনই তাকে বারবার সংসারের অর্থহীন নিয়মের বিরুদ্ধে বিদ্রোহী করে তুলেছে, তাই বারংবার তকমা জুটেছে ‘অবাধা’, ‘মুখপোড়া’, কিন্তু দমে যাওয়ার পাত্রী সে নয়।

নিত্যানন্দপুরের ঘেরাটোপ ছেড়ে বারুইপুরের শ্বশুরালয়ে গিয়ে সত্যবতী এক অদ্ভুত আবর্তের মধ্যে পড়ে, স্বীকার হয় অকারণ গঞ্জনার। কিন্তু কোনোদিনই নিশুপে অন্যায়ে মেনে নেবার মেয়ে সে নয়, তাই শ্বশুরবাড়িতে আসবার কিছুদিনের মধ্যেই তার শাশুড়ি এলোকেশী যখন চুল বাঁধার অছিলায় সত্যবতীর পিঠে কিল মারেন, তখন স্বভাবদোষে সে সঙ্গে সঙ্গেই প্রতিবাদ করে -

“কিন্তু কথা এলোকেশীকে শেষ করতে হল না, সঙ্গে সঙ্গে আর একটা প্রলয় ঘটে গেল। শাশুড়ির হাত থেকে চুলের ভার এক হ্যাঁচকায় টেনে নিয়ে সত্যবতী ছিটকে দাঁড়িয়ে উঠল, আর শাশুড়ির সঙ্গে যে কথা কওয়া নিষেধ সে সম্পর্কে সম্পূর্ণ বিস্মৃত হয়ে দৃগুশ্বরে বলে উঠল, “তুমি আমায় মারলে যে!” (পৃ. ১৮১)

সত্যবতীর যুক্তিবাদী মন যথার্থই অনুধাবন করে যে বারুইপুরের পরিবেশে তার সন্তানেরা সুশিক্ষা লাভ করতে পারবে না, অতএব কলকাতানিবাসী হওয়া একান্ত প্রয়োজন। সেজন্যই সে বহু গঞ্জনা সত্ত্বেও স্বামী নবকুমারকে একপ্রকার বাধ্য করে কলকাতায় চাকরি নিতে।

কলকাতায় পৌঁছে শুধুমাত্র একা হাতে নতুন শহরে সংসার সামালানো বা ছেলেদের ভালো স্কুলে পড়ানোই নয়, নিজেও আবার বিদ্যাভ্যাস, বিশেষত ইংরাজি শিক্ষা আরম্ভ করে, এমনকি পরবর্তীতে ভবতোষ মাস্টারমশাইয়ের পাঠশালায় বয়স্ক রমণীদের পড়ানোরও ভার নেয়। এজন্যও তাকে প্রত্যাশিতভাবেই বহু লাঞ্ছনার শিকার হতে হয়েছে, এমনকি সহ্য করতে হয়েছে ভবতোষ মাস্টারমশাইয়ের চরিত্র নিয়ে কুমস্তব্যও, তবু কিছুতেই সত্যবতীকে আটকানো সম্ভব হয়নি, কারণ বিধাতাপুরুষ(অথবা নারী?) তাকে কিছু দুর্দম জেদ দিয়েই বুঝি গড়েছেন।

এই জেদই সত্যবতীকে বারংবার আপাত-অসম্ভবের দিকে তাড়িত করেছে। এই জেদের হাত ধরেই সে বিধবা শঙ্করীর ‘অবৈধ’ সন্তান সুহাসিনী ওরফে সুহাসকে নিজের মনের মতো করে গড়ে তুলতে চেয়েছে এবং পরবর্তীকালে পেরেওছে।

সুহাসিনী শুধুমাত্র যে যথেষ্ট পড়াশুনা শিখেছে তাই নয়, সত্যবতী একদিন খবর পায় সে সুবর্ণলতাদের স্কুলে অর্থাৎ একটি বালিকা বিদ্যালয়ে উঁচু ক্লাসের শিক্ষিকা হিসেবে যোগদান করেছে, সার্থক করে তুলেছে সত্যবতীর সাধনা। সুহাসিনী আক্ষরিক অর্থেই সত্যবতীর মানসকন্যা।

সংসারে কিছু কিছু মানুষ থাকে, আপাত দৃষ্টিতে “ঘরের খেয়ে বনের মোষ তাড়ানো”ই বোধ করি যাদের জীবনের ব্রত, সত্যবতী চরিত্রটিকে দেখলেও একথা মনে হওয়া কিছু বিচিত্র নয়। সে কারণেই শুধু সংসারধর্ম নিয়ে থাকা কোনো অর্থেই, কোনোকালেই তার দ্বারা সম্ভবপর হয়নি, বারেবারে সে ছুটে গেছে পরার্থে, যেখানেই অন্যায়ে দেখেছে (বিশেষত নারীজাতির প্রতি) তার মনে হয়েছে এ যেন তারই বিরুদ্ধে ঘটানো অন্যায়ে। সেজন্যই যখন সে শোনে ভাবিনীর বোনকে তার শ্বশুরবাড়ির লোকেরা ‘নোড়া দিয়ে ছেঁচে মেরে ফেলেছে’ তখন কিছুতেই তার বিদ্রোহী মন স্থির থাকতে পারে না, একদিকে সে পুলিশকে চিঠি লিখে বসে, অন্যদিকে এই ‘প্রতিকারহীন শক্তির অপরাধে’ তার হৃদয় গুমরে মরে, অন্যদের হতাশ, হতোদ্যম মূর্তি দেখে সে বেদনায় ছটফট করে, আর ভাবিনীর মতো কেউ কেউ মনে করে তার মতো পাষাণী বোধহয় জগতে দু’টি নেই, এতো বড় অন্যায়ে যার মুখ থেকে কোনো সান্ত্বনাবাণী নিঃসৃত হয় না! যুগে যুগেই সান্ত্বনা দেবার বদলে অন্যায়ে প্রতিকারের পথ যারা দেখাতে চেয়েছে আপামর মানুষ তাদেরই ভুল বুঝেছে, সত্যবতীর ক্ষেত্রেও যে সে নিয়মের ব্যত্যয় হবে না এ আর আশ্চর্য কী!

তবে অলক্ষ্যে বিধাতা হয়তো সত্যবতীর জন্য আরও দ্রুত কোনো পরিকল্পনা করে রেখেছিলেন। সেজন্যই সত্যবতীর ছেলের বিয়ের জোগাড়যন্ত্রের ব্যস্ততার কারণে তার অবর্তমানেই গ্রামের বাড়িতে তাকে না জানিয়েই এলোকেশী ও নবকুমারের যৌথ সিদ্ধান্তে সুবর্ণলতার বিবাহ সম্পন্ন হয়ে যায়। সত্যবতী যখন এসে পৌঁছয় তখন বাসি বিয়ের তোড়জোড় চলছে, নিজেরই চোখকে বিশ্বাস হয় না তার। কিন্তু সেই বিবাহ অনুষ্ঠানের মধ্যে দাঁড়িয়েই

সে সিদ্ধান্ত নেয় যে নবকুমারের সংসারে আর তার কোনো প্রয়োজন নেই, অস্তিত্বের কারণও নেই, সেই বিবাহমণ্ডপ থেকেই সে কাশীতে পিতা রামকালীর কাছে যাবার সিদ্ধান্ত নেয়। শাশুড়ি বা স্বামীর শত অনুনয়ও সে সিদ্ধান্ত বদলাতে পারেনি।

সত্যবতীর এই আত্মসম্মানবোধই সম্ভবত পাঠককে সর্বাধিক মুগ্ধ করে, চমৎকৃত করে। সে যেমন তার বাবার অসম্মান সহ্য করে না, তার মাস্টারমশাইয়ের অসম্মান সহ্য করে না, তেমনই সহ্য করে না নিজের অসম্মানও। তাই সে শেষবেলায় সৌদামিনীকে বলে,

“সুবর্ণ যদি মানুষ হবার মালমশলা নিয়ে জন্মে থাকে ঠাকুরঝি, হবে মানুষ।...নিজের জোরেই হবে। তার মাকে বুঝবে। নইলে ওর বাপের মতো ভাবতে বসবে মা ওর মহা নিষ্ঠুর!...সে ভাবনা বন্ধ করি এ উপায় আমার হাতে নেই!” (পৃ. ৫০৯)

তবে কাশীতে যে তার বাবার গলগ্রহ হতে যাচ্ছে না, যাচ্ছে সারাজীবন ধরে জমিয়ে রাখা কিছু প্রশ্নের মীমাংসা করতে, সে যে নিজের ভাত নিজেই জোগাড় করবে এ কথাও স্পষ্টই জানিয়ে দেয় সত্যবতী -

“অনেকদিন আগে সুবর্ণ যখন জন্মায়নি, পাঠশালা খুলে পড়ানো পড়ানো খেলা করতাম মনে আছে তোমার ঠাকুরঝি? আবার দেখবো, সে খেলা ভুলে গেছি না মনে আছে!...একটা মেয়েমানুষের ভাতকাপড় চলে যাবে না তাতে?” (পৃ. ৫০৯)

এ ক্ষেত্রেই বোধ করি লেখিকা সত্যবতী চরিত্রটিকে আরও এক ধাপ ওপরে নিয়ে যান। নারীর ক্ষমতায়ন যে শুধুই অর্থনৈতিক মানদণ্ডে আসে না, তা যে শুধুমাত্রই অর্থনৈতিক স্বাধীনতানির্ভর নয়, প্রকৃত ক্ষমতায়নের জন্য যে অর্থনৈতিক স্বাধীনতার পাশাপাশি প্রয়োজন বৌদ্ধিক স্বাধীনতাও, অর্থাৎ নিজের জীবনের সিদ্ধান্ত নিজে নেবার ক্ষমতাও, সত্যবতী চরিত্রটি এ কথাই স্মরণ করিয়ে দেয় বড় জোরালোভাবে। সত্যবতীর সংসারত্যাগ অবশ্যম্ভাবীভাবেই মনে করায় হেনরিক ইবসেনের *The Doll's House*-এর নোরা হেলমারের কথা,

যার সংসারত্যাগ আদর্শই যেন পুরুষতন্ত্রের মুখে একটি সপাটে খাপড়, অন্যদিকে মনে পড়ে ‘স্ত্রীর পত্র’-এর মৃণালের কথা, সংসারের যাতনায় বঞ্চিত হতে হতে যার সত্ত্বাও জেগে ওঠে একসময়, যে স্পষ্টতই জানিয়ে দেয় সে আর সাতাশ নম্বর মাখন বড়ালের গলিতে ফিরবে না, এমনকি মনে পড়ে *যোগাযোগ*-এর কুমুদিনী বা কুমুর কথাও, যে শ্বশুরবাড়ি যাওয়ার আগে তার দাদা বিপ্রদাসকে জানিয়েই যায় একদিন সে তার ছেলেকে তাদের বংশের হাতে তুলে দিয়ে সংসার ছেড়ে চলে আসবে -

“মানুষ যখন মুক্তি চায় তখন কিছুতেই তাকে ঠেকাতে পারে না। আমি তোমারই বোন, দাদা, আমি মুক্তি চাই। একদিন যেদিন বাঁধন কাটব, মা সেদিন আমাকে আশীর্বাদ করবেন এই আমি তোমাকে বলে রাখলুম।” (পৃ. ৪৫৩)

সত্যবতী যেন ‘কালান্তরের পথিক’, নিশ্চিন্তির ঘেরাটোপ থেকে সে পা বাড়িয়েছে সম্ভাব্য বৃহত্তর জগতের সন্ধানে। নারীর আত্মপ্রতিষ্ঠার যে অগ্নি প্রজ্জ্বলন করে গেছে সত্যবতী, সেই মশালই যেন আরও এগিয়ে নিয়ে যায় পরবর্তীকালে সুবর্ণলতা ও বকুল।

কিন্তু একবিংশ শতাব্দীর দু’ দশকেরও বেশি সময় পেরিয়ে এই সংগ্রামের পথ দীর্ঘতর হতে দেখতে দেখতে একটি প্রশ্ন মনের মধ্যে দানা বাঁধে, সংসারত্যাগই কি তবে নারীমুক্তির স্মারক? আত্মপ্রতিষ্ঠায় দীক্ষিত নারীকে যোগ্য মর্যাদা দান করবার মতো সাবালক সমাজ-সংসারের স্বপ্ন কি আরও কয়েক প্রজন্ম-দূরবর্তী?

গ্রন্থস্বর্ণণ :

১. ঠাকুর, রবীন্দ্রনাথ, *মহায়া*
২. দেবী, আশাপূর্ণা, *প্রথম প্রতিশ্রুতি*, মিত্র ও ঘোষ, বৈশাখ ১৪১৮
৩. ঠাকুর, রবীন্দ্রনাথ, *যোগাযোগ*, রবীন্দ্র রচনাবলী, পঞ্চম খণ্ড, পৌষ ১৩৯৪

Bose Statistics that Shook Physics Hundred Years Ago

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As we are celebrating the Centenary of S. N. Bose's discovery of Quantum Statistics in 1924, it is necessary to discuss his pathbreaking contribution in a lucid manner so that one having little knowledge about modern physics can also realize the importance and implications of the discovery of an Indian scientist which shaped the 20th century Physics.

In this article, without going into much Mathematics, we will discuss how S. N. Bose derived Planck's law of Black-body radiation totally from quantum concepts, which could not be solved by the stalwarts of International Theoretical Physics Community including Einstein for two decades and gave birth to a new science. We will also indicate the new concept of indistinguishability of photons as well as of their intrinsic spin, as a natural outcome of Bose's work, a fact normally unknown to young researchers.

Historical Perspective

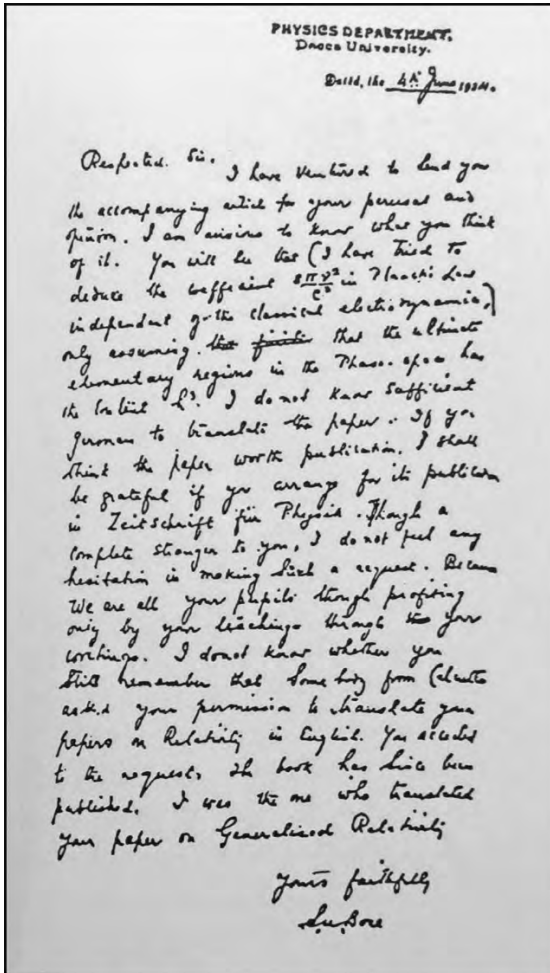
In their July issue, the famous journal of Germany (at that time, of the world), *Zeitschrift für Physik*, published a small four-page paper, "Planck's Law and the Light-Quantum Hypothesis" in German language. The author's identity was incomplete— Bose (Dacca University, India). The style of writing of the paper was also not according to the normal scientific paper writing format, rather like a personal communication or face



Professor Satyendra Nath Bose (Photo-Internet)

to face discussion, where severe criticism of stalwarts of the then scientific community was made frankly. It was because the article was not sent for direct publication. It was sent to the famous scientist Albert Einstein for his perusal and opinion enclosing a personal letter to him.

On 4th June, 1924 Satyendra Nath Bose, Professor of Physics department, Dhaka (the then Dacca) University of British India, sent this paper to Einstein with a request, "... I do not know sufficient German to translate the paper. If you think the paper worth



Bose's letter to Einstein [Ref-6]

publication, I shall be grateful if you arrange its publication in *Zeitschrift für Physik...*". Albert Einstein instantly identified the new science evolved in this paper and removing some personal talks from the article, then and there he translated it into German and sent it to the journal with his valuable remark. Einstein, in his translator's remark wrote, "In my opinion Bose's derivation signifies an important advance. The method used here gives the quantum theory of an ideal gas as I will work out elsewhere" [1].

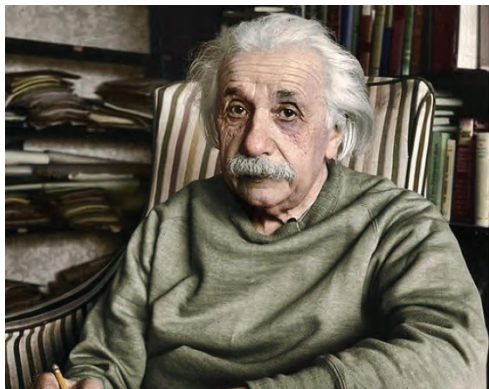
In a letter dated 2nd July, 1924, Einstein

wrote to Bose, "Dear Colleague, I have translated your work... It signifies an important step forward and I liked it very much ... You are the first to derive the factor quantum theoretically, even though because of the polarization factor 2 not wholly rigorously. It is a beautiful step forward." Ten days later, on 12th July, Einstein wrote to another stalwart in modern science, Ehrenfest, "The Indian Bose has given a beautiful derivation of Plank's law including the constant $8\pi\nu^2/c^3$." [2]

After the discovery of Plank's law of black-body radiation in 1900, scientists observed a peculiar discrepancy in logical and theoretical explanation of that law. Debye (1910), Einstein (1917), Pauli (1923), Einstein-Ehrenfest (1923) – all of them tried for a theory for explaining the law. But, all of them simultaneously applied classical as well as quantum concepts, which according to Bose [1] was an 'unsatisfactory feature' and not free from 'logical flaw'. In this situation, Meghnad Saha during his visit to Dhaka (march, 1924), drew the attention of Bose on Pauli's (1923) work. Pauli conceived a wonderful

idea in his article – as if the present is dependent on the predetermined state. Satyendra Nath Bose collected all such research papers on Plank's Law and derived a logical fully quantum explanation of the law in May-1924. The Philosophical Magazine of London kept this paper of Bose unanswered and therefore compelled him to send it to Einstein. [3]

As promised in the translator's remark of Bose's paper, within a few days Einstein showed in two papers how Bose's process of calculation can be used in deriving quantum theory of an ideal gas. These two papers were presented in the colloquium



Albert Einstein (Photo- Internet)

on theoretical physics at Berlin Science Academy and published in their proceedings *Sitzungsberichte*. The statistics obtained from Bose's paper is called Bose Statistics and the same when used by Einstein in quantum theory of ideal gas is called Bose-Einstein Statistics. Sometimes both are called as 'Bose Statistics'. [4]

Immediately after this colloquium, Einstein presented his third paper on the same subject in the meeting of the academy. How the concept of ideal gas was changed by the quantum theory of Ideal gas, obtained by using Bose's process of calculation was the subject of this paper. In this way, the discussion about the small four-page paper of Bose became the main point of attraction at the Berlin Science Academy. It may be noted that the Berlin Science Academy at that time was not only the scientific nerve center of Germany, but also it was the center of scientific attraction of the whole world.

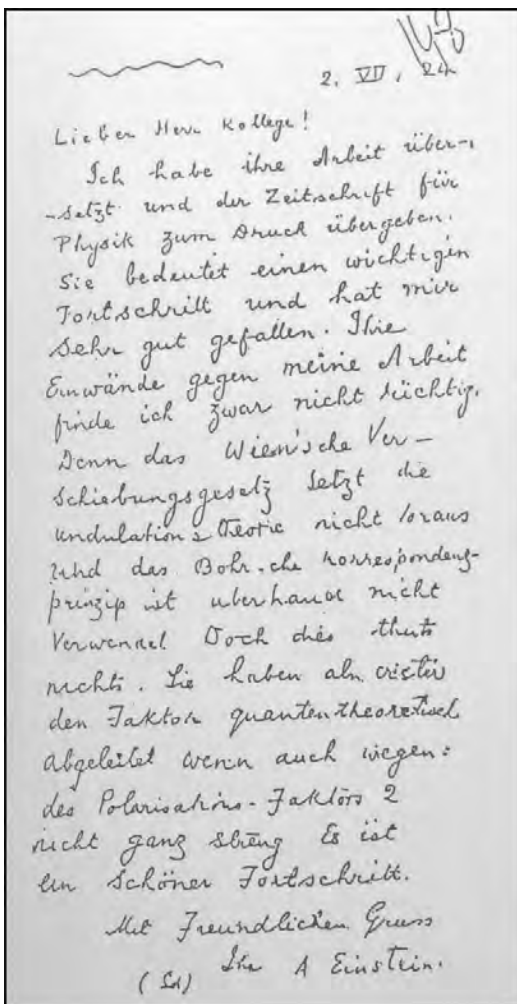
After Einstein's three papers on application of Bose Statistics in ideal gas, the discussion was continued by Plank and Schrödinger. They presented consecutive two papers from each of them regarding this in the same academy. The topic was the newly changed shape of the theory of ideal gas and statistical mechanics. Thus, Bose instantly emerged as a potential figure in

the world of quantum physics.

This discovery of S. N. Bose inspired the whole scientific community to work for building up a new physics called quantum physics. In 1926, the Italian scientist Enrico Fermi adopted the same process as Bose and based on Pauli Principle (1925) devised another quantum statistics later termed as Fermi Statistics. In 1928, the English scientist Dirac explained the importance of Bose and Fermi Statistics in quantum mechanics as well as in the entire theoretical physics. As per Dirac, all the fundamental particles conceived in quantum mechanics should either obey Bose Statistics or Fermi Statistics. The particles obeying Bose Statistics were termed as 'Boson' and the particles obeying Fermi Statistics, 'Fermion'.

In the past nearly hundred years, we have experienced amazing development of science, so many new theories have acquired their place in science, but not a single fundamental particle is discovered which does not obey either Bose Statistics or Fermi Statistics. No fundamental particle, which is not a 'Boson' nor a 'Fermion' is observed in experiment till date. No theory is also developed by rejecting them. This indicates the importance of the quantum statistics developed by Satyendra Nath Bose. The Italian scientist Gentile proposed a different statistical method in 1940 without successful application in anywhere and hence not accepted in science.

The researchers who worked on 'History of Science' have established that after receiving Bose's article, how Einstein started realizing the significance of de-Broglie's proposed wave particle duality and sought attention of others towards it. From the letters of the great scientist Schrödinger, it is also revealed that he himself was inspired by Einstein's articles on 'Bose Statistics' which led him to formulate his famous discovery of 'wave mechanics.' Thus, Bose's



Einstein's postcard of 2nd July 1924 to Bose [Ref-6]

revolutionary contribution to science shook the contemporary physics and gave birth to a new era.

Plank's Law of radiation

If we pass sun rays or similar white rays through a triangular glass (prism), we will see seven colours, emerging from the other side of the glass. If we place a white screen after these emergent rays, we will see consecutive layers of different colours like rainbow. This is called spectrum of visible light. But that is not the whole spectrum. In

addition to this visible portion, actually there are many invisible rays in open eyes. On one side of the visible spectrum, there are infrared rays, radio waves, heat radiation rays etc. and on the other side, there are ultraviolet rays, x-rays etc. If we measure the brightness (intensity) of different portion of the spectrum by suitable instrument, we will see that some area is brighter than some other area of the spectrum. That means the different portion of the spectrum is having different intensity and in turn different energy. Thus, the total energy is distributed in different proportion in different rays. This is called energy distribution of the spectrum. If the source of radiation is changed, we will get a different spectrum.

In thermodynamics of radiation, radiation from a black-body is taken as ideal. In the last part of 19th century, efforts were made to devise a law of distribution of energy in the spectrum of black-body radiation and explain the law theoretically. But no one was capable to formulate a law for experimentally obtained whole range of the spectrum. A portion of one side of the spectrum was described by Rayleigh-Jeans law while a portion of the other side of the spectrum could be described by Wien's law. From another law of Wien, scientists got idea of energy distribution throughout the whole spectrum, but the exact law could be not be framed. Finally, the British scientist Jeans showed that it is impossible to obtain the energy distribution law of the black-body radiation from classical mechanics or Maxwell's classical electrodynamics or from any statistical analysis based on these classical physics. Thus, the need to restructure classical physics was evolved and Max Plank took the lead regarding this. The result is the Plank's law and later quantum mechanics.

Plank's formula for the spectral density of electromagnetic radiation having frequency lies between ν and $\nu + d\nu$ emitted by a black-body in thermal equilibrium at a particular temperature T is

$$\rho_{\nu} = \frac{8\pi h\nu^3}{c^3} \frac{1}{e^{h\nu/kT}-1}$$

Here h is the Plank constant and k is Boltzmann constant. c is the velocity of light. Plank explored many ideas to find a satisfactory theoretical basis and finally desperately introduced the idea of 'quanta of energy' for matter-radiation interaction only, but not in the radiation itself. He took radiation to be classical and described by Maxwell's electromagnetic theory. He assumed that the total energy U_N of N oscillators (resonators) was made up of finite energy elements ϵ such that $U_N = P\epsilon$ with P a large number and proceeded for statistical derivation yielding $\epsilon = h\nu$. This is how quantum theory was born.

In his presentation on 14th December, 1900, Plank had no more justification than that it gave the right result, i.e., it explains satisfactorily the entire range of the spectrum of black-body radiation. Plank did not know the value of the constant ' h '. So, he had to vary the value of ' h ' till he got a good curve fit to the experimental data. He obtained $h = 6.55 \times 10^{-34} \text{Js}$. The present accepted value of ' h ', is $6.626 \times 10^{-34} \text{Js}$ [5]

Various efforts for derivation of Plank's Law

Einstein's light-quantum hypothesis and introduction of phase space cells by Plank were two big jumps to have a concrete base of derivation of this law. In 1905, Einstein proposed that radiation had statistical properties like material particles and consist of discrete light quanta of magnitude $h\nu$. He applied this light-quantum hypothesis to several radiation phenomena, especially the photo-electric effect. He argued in

connection with the Plank's law that the energy of an elementary resonator can only assume values which are integral multiples of $h\nu$; the energy of a resonator changes in jumps by absorption or emission in integral multiples of $h\nu$.

Plank himself realized that classical statistical mechanics had to be modified to yield his radiation formula rather than that of Rayleigh and Jeans. He reported this conclusion at the Solvay Congress held in Brussels in 1911. Gibbs's derivation of probability of finding a single particle in six-dimensional phase space led Plank to interpret the constant h as a finite extension of the elementary area in phase space.

By 1916, the light-quantum hypothesis of Einstein received empirical support from Millikan's verification of his photo-electric equation. Einstein readily realized from his own derivation of Plank's Law (1917) that in each energy transfer from radiation to matter, the momentum $h\nu/c$ is also transferred to the molecule and every such elementary process is a completely directed event.

Despite of several attempts by the leading physicists like Plank, Debye, Einstein, Pauli, and Einstein and Ehrenfest in the period from 1910 to 1923, there was no logical satisfactory derivation of the Plank's law. In all of them, the first factor in the Plank's law was taken from classical electrodynamics to be the number density of the modes of vibration of radiation. The second factor was deduced from Maxwell Boltzmann statistical mechanics by postulating various ad hoc rules. By late 1923, Compton effect experimentally proved that radiation itself consists of energy quanta.

S. N. Bose's Derivation

Professor Satyendra Nath Bose, explicitly based on quantum theory solved all the above problems in one stroke by deriving the

full Plank law including the first factor. There were no hypothetical energy quanta, no wall resonators, just physical indistinguishable photons. One of the strong foundations of quantum mechanics was laid and instantly accepted and used by stalwarts of scientific community as is done even today.

He made it happen by extending Plank's method of quantization of material resonators to radiation itself. Then using the Einstein's relation $p=hv/c$ on phase space of a single photon, he obtained the number density of phase space cells. Because, photon has a spin, it can spin either parallel or antiparallel to its direction of motion, [which was experimentally proved by C. V. Raman and S. Bhagavantam in 1931 ("Experimental proof of the spin of the photon", C. V. Raman and S. Bhagavantam, *Ind. J. Phys.* Vol. 6, p.353, 1931), where Bose's work on Plank radiation formula was referred, this factor is to be multiplied by 2. [Note- In the first paper of Bose translated by Einstein, the factor 2 was due to polarization, most probably inserted by Einstein himself] [6].

The first factor now appears with a new interpretation: it is the number of possible states of the photon, i.e., the number of possible arrangements of a photon in the given volume. This number is fixed and hence permutations of the identical photons within a cell cannot produce new cells, and this immediately implies that photons are indistinguishable particles. The cells are therefore labelled only by the number of photons in them. For full derivation one can see the reference-1.

The 2nd Paper of S. N. Bose

Within a few days of publishing the 1st paper regarding Plank's radiation law, another paper on *Thermal Equilibrium in Radiation Field in the presence of Matter* of S. N. Bose was published in the same journal *Zeitschrift für Physik*. This paper was of ten

pages with full identity of the author. Again the translator was Albert Einstein. In the 1st part of this paper, Bose derived general conditions for statistical equilibrium of a system consisting of matter and radiation. In the second part, he proposed a new expression for the probability of these elementary radiative processes which is different from the proposal of Einstein (1917).

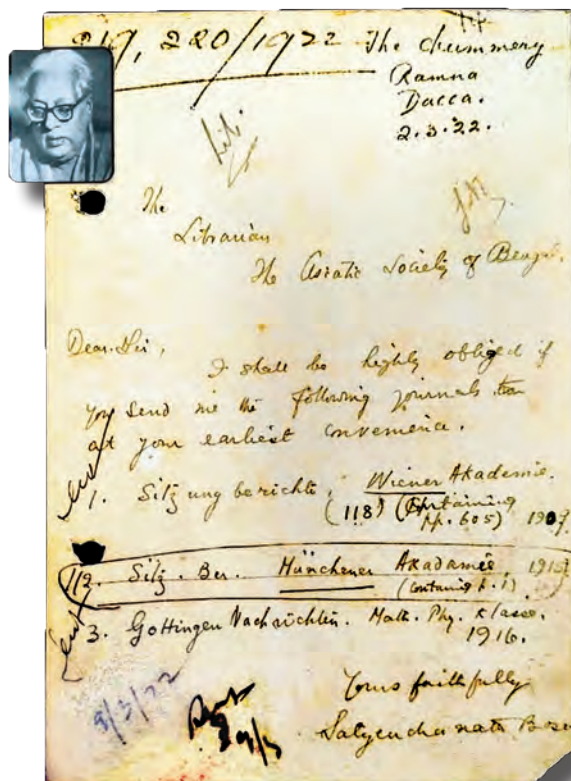
Despite this difference, Einstein translated this 2nd article and sent to the journal with some adverse comment. Einstein did not accept the new outlook of Bose regarding interaction of fundamental particle and radiation. As a result, this 2nd paper could not attract international scientific community. But Bose remained steadfast on his proposal for the rest of his life and believed that Einstein had not done him justice [6]. During the publication of this paper, Bose was in Paris. Within a few days, Bose sent his 3rd paper to Einstein from Paris, which remain unpublished due to rejection from Einstein. Neither did Bose keep a copy of that paper, nor it is available in Einstein Archives. So, the exact content of that paper will remain unknown to the world. But from Bose's letter to Einstein dated 27th January, 1925 (from Paris) and from the discussion of Professor Bose with his close students and colleagues, it is revealed that there was difference of opinion regarding the spontaneous emission of radiation from atom. The details are beyond the scope of this article. But this may be mentioned here that the modern quantum field theory proposed by Dirac supports the opinion of Bose.

After the death of Bose, experiments from 1987 onwards are constantly establishing the truth hidden in Bose's proposal. From the letter of Bose to Einstein dated 27th Jan 1925, it is revealed that Bose proposed the concept of 'empty waves' as well. In

a letter to Schrodinger in 1946, Einstein accepted this concept. But sadly, in this letter there was no mention of Bose's letter to him or Bose's 3rd article sent to him. The full implication of those great discoveries of Bose, like most others who have made revolutionary contribution in the world of science, could not be understood by the then famous scientists at their time, which is now being recognized.

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S. N. Bose's Letter dated 02.03.1922 to the Librarian of The Asiatic Society of Bengal asking for some journals.

Medicinal Plants – A Bioresource for Livelihood Generation

Asok Kanti Sanyal

Biological Science Secretary, The Asiatic Society

1. Introduction

Since the dawn of human civilisation, men have used plants as a source of medicine, because they were available in the immediate environment. The plants having medicinal values have a great role in human life. A large population of the world relies on the traditional system of medicines, which are largely plant based, and their collection, cultivation, utilisation and marketing not only help to meet their primary health care needs, but also add to source of income. More than 9000 native plants have been established and recorded for their curative properties. Angiosperms (flowering plants) are the original source of most plant medicines. Nearly, 80% of the population of developing countries relies on traditional plant based medicines for their health requirement (WHO, 1991).

Medicinal plants have a long-standing history in many indigenous communities, are

an integral part for treating various diseases, particularly to cure daily ailments and this practice of traditional medicine is based on hundreds of years of belief and traditions.

Studies in the United States and Europe have shown that the use of herbal medicine has become more popular and increasingly more in recent years as the effectiveness of herbs as medicine has become more widely acceptable. The highest number of medicinal plant species is known from China. India occupies the second position in richness of species of medicinal plants (Table-1).

2. History of use of plants as medicine

The use of plants as medicines dates back to prehistoric period. Their use actually started to lessen food, in cuisine to destroy the food-borne pathogens. It is observed that in tropical countries where pathogens are most abundant, recipes are highly spiced. The identification of medicinal plants and recognition of their importance was known to man approximately

Table 1: Number and percentages of medicinal plant (MP) species recorded from different countries and regions

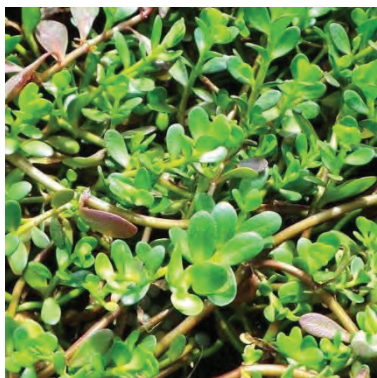
Country or Region	No. of Species of MP	Total No. of native species in flora	% of flora which is medicinal
China	11146	27100	41
India	7500	17100	44
Mexico	2237	30000	7
North America	2572	20000	13
World	52885	297000-510000	10-18

Hamilton, 2004

60,000 years ago. In the record, the study of herbs and their use as medicine dates back to over 5,000 years by the Sumerians. In 1500 BC, the ancient Egyptians wrote the *Ebers Papyrus* that contains information on over 850 plant-based medicines.

In India, as early as 1900 BC, Ayurveda medicine used many herbs such as turmeric. The earliest available documents on Ayurveda system of medicine are the Sanskrit writings such as *Rig Veda* and *Atharva Veda*. Many other information of Ayurveda medicines was described by Charaka and Sushruta during the 1st millennium BC. The *Sushruta Samhita* attributed to Sushruta in the 6th century BC describes 700 medicinal plants.

There are many such ancient documents, written by Chinese, Greek and Roman herbalists. The first Chinese pharmacopoeia, the "*Shenlong Ben Cao Jing*" listed 365 medicinal plants and their uses including ephedra, hemp and chaulmoogra. The monasteries were the primary and authentic source of knowledge of herbal medicines in Europe during the early middle ages. Their herb gardens provided the raw materials for treatment of common ailments. During that time, there were numerous wandering and settled herbalists who used folk medicine in home and village. Many of them were known as "wise-women" and "wise-men" who



Brahmi

prescribed herbal medicines often along with spells, enchantments, divination and advice. In the late Middle Ages, a woman named Hildegard of Bingen, was the most famous 12th century monastery nun wrote a medical text called *Cause et Curae*.

Medical schools known as Bipartisan were formed during the 9th century by Persians and Arabs. A trade and traveller Arabs had access to plant materials from China and India. The knowledge of Muslim botanists and physicians was then expanded. Among them, al-Dinawari described more than 637 plant drugs. Ibn al-Baytar described more than 1400 different plants, foods and drugs, over 300 of which were his own original discoveries. His book *Corpus of Simples*, the most complete Arab herbal which introduced 200 new healing herbs, including tamarind, *Aconitum napellus* also known as aconite and *Strychnos nux vomica*.

A Greek physician and pharmacologist Pedanius Dioscorides wrote in Latin *De Materia Medica*, a compendium of more than 600 plants, 35 animal products and 90 minerals. It was the authoritative reference of herbalism in the 17th century.

The 15th, 16th and 17th centuries were the great age of herbals. The first book of herbal medicine in English was the anonymous *Grete Herball* of 1526. Later two other greatest and best-known herbals in English were *The Herball or General History of Plants* (1597) by John Gerard and *The English Physician Enlarged* (1653) by Nicholas Culpeper.

3. Modern medicine vis-à-vis herbal medicine

It is fact that the medicinal plants used in ancient times are still in use in modern system of medicine. About 85% of traditional medicines are plant derived. In recent years, the researches and use of drugs and dietary supplements derived from plants have accelerated a many times. The pharmacologists, microbiologists,



Ayapan

botanists and chemists are seriously searching the Earth for such phytochemicals which could be the potential resource of modern drugs. According to WHO, about 25% of modern drugs are derived from plants. Nearly 120 active compounds have so far isolated from the higher plants and widely used in modern medicine, 80 per cent show a positive correlation between their modern therapeutic use and the traditional use of the plants from which they are derived. At least 7000 medical compounds in the modern pharmacopoeia are of plant origin.

Plants produce chemical compounds as part of their metabolic products that help to perform essential biological functions in the body and defend against attack from diseases. At least 12,000 such compounds have been isolated so far, it is also presumed that the number is far less than the total. There is actually no difference in the effect of the chemical compounds in plants on the human body to that of the compounds present on conventional drugs. So, the herbal medicines as effective as conventional medicines. There are two types of these phytochemicals, 1) Primary metabolites like sugars and fats, and 2) Secondary metabolites - these compounds are not present in all the plants, and serving more

specific functions. Some of these are toxins and others are pheromones, which have therapeutic actions in humans and are refined as drugs, for example insulin, quinine, morphine, codeine and digoxin. Toxic plants are also used in pharmaceutical development. There are records that the compounds used in modern medicine were derived from 'ethnomedical' plant sources. Many of the pharmaceuticals currently available to physicians have a long history of use as herbal remedies, including aspirin, quinine, opium, etc.

4. Trade in medicinal plants and herbal drugs

Medicinal plants are not only the resource base for the traditional medicine and herbal industry but also provide livelihood and health security of man. The domestic trade of the herbal industry is of the order of Rs. 80 to 90 billion and the account of exports in the range of Rs. 10 billion. The rapid and hopeful growth of traditional and alternative health care systems resulting in world herbal trade at USD 120 billion and is expected to reach USD 7 trillion by 2050. Indian share in the world trade is quite low, it is constantly increasing and many businesses with herbal products have developed in the Indian and foreign markets. In the fiscal year 2022-2023 the country exported USD 628.25 million in Ayurvedic and herbal items.

In 2002, world trade was to the tune of USD 1034 million. The annual global export value of medicinal plants in 2011 accounted for over USD 2.2 billion.

There are about 90 medicinal plants having consumption of more than 10 tonnes per year in India. Many businesses with herbal products have developed in the Indian and foreign markets. In the fiscal year 2022-2023 the country exported USD 628.25 million in Ayurvedic and herbal items as per herbal products exports data. These data also showed that India exported 1,240.6 million dollars in



Satamuli

Ayurvedic and herbal products over the last two years (2021-2022 to 2022-2023). However, the country has the potential of increasing this figure beyond Rs. 3000 crore (SMPB, 2003).

India the second largest (11%) medicinal plant exporter

at global level exports 960 species which are source of 1289 drugs. The top herbs export from India are Ashwagandha, Turmeric, Aloe Vera, Ginger, Tulsi, Brahmi, Shatavari, Guduchi, Licorice, Neem and Triphala. The annual demand of MP is about 3,19,500 MT, but a total of about 1,81,483 MT of medicinal plants are collected per annum in India. The most used MP species in India are 178 and demand of each of the species is more than 100 Mt per year. The status of trade of different parts of raw medicinal plants in India: - root-26%, stem- 13%, wood-2%, exudates-3%, flower-7%, fruit-25%, leaves-11% and whole plant-13%.

5. Safety in use of herbal drugs

The herbals are very low-cost medicines and “natural” and thought to be safe because they are popular to rural particularly to tribals, but the question of safety comes when adulteration is not uncommon in medicine manufacture and trade. A number of herbs cause adverse effects. For example, *Datura stramonium* is very effective for treatment of asthma as an antispasmodic in the lungs, but overdoses can result fatal condition. Furthermore, adulteration, inappropriate formulation or lack of understanding of

plant and drug interactions sometimes leads to adverse reaction. Although not frequent, adverse reactions have been reported for herbs in widespread use. There are many occasions when serious untoward outcomes have been linked to herb consumption. Sometime for some herbals question of safety arises for pregnant women. There is also concern with respect to the numerous incidents of adverse interaction of herbs and drugs.

It is, therefore, advised to make proper clinical trials to determine the safety and efficacy of each plant before they are recommended for medicinal use. There are reports of adulteration also. The study published in 2013 showed that one-third of herbal supplement samples contained no trace of these listed on the label. It also reported products adulterated with filler including allergens.

6. Conservation of medicinal plants

In 2008, the 'Botanic Gardens Conservation International' warned in a report that “cures for things such as cancer and HIV may become extinct before they are never found.” They identified 400 medicinal plants at risk of extinction from over exploitation and deforestation, threatening the discovery of future drugs for disease.

Rapid industrialisation has led to an uncontrolled increase in human and livestock populations in the 20th century and the subsequent pressure on available land and unsustainable use of wild plant population of many species including the endemic ones are now threatened with extinction. The critically endangered species in the red list of the IUCN needs an urgent attention for conservation.

Various sets of recommendations for successful conservation of medicinal plants include, the need for *in-situ* and *ex-situ* conservation strategies, inclusion of local community and gender perspectives in development of policies and programmes; need



Kalmegh

for more information on trade; development of stable mechanism of inventorying and monitoring the status of medicinal plants and products; awareness and encouragement for microenterprise development by indigenous and rural communities; and the protection of traditional knowledge and resource and intellectual property rights.

- (i) *In-situ* conservation: - The protection of selected habitats where there is still plant diversity will be done to ensure the survival of the medicinal plants for sustainable utilisation. The conservation area to be called “Medicinal Plants Conservation Areas (MPCAs) will be of the size that the habitat and a viable biological community is represented. The local communities are to be involved in the MPCA programme, aimed at providing them some material benefits in lieu of their contribution towards protection of MPCAs.
- (ii) *Ex-situ* conservation and use of medicinal plants for primary health care: - Medicinal Plants Conservation Parks (MPCPs) are to be established for *ex-situ* conservation of medicinal plants and outreach activities to promote conservation and use of medicinal plants for primary health care. Further, conservation as well as use of medicinal plants for home remedies of common ailments can be promoted through development of Home Herbal Garden

(HHG). HHGs are to be developed as many as households as possible in the villages and the women self-help groups would be the principal beneficiaries in the programme.

- (iii) Ethnomedicinal plant conservation through Sacred Groves :- It is true that much of India’s natural resources have been preserved through the ages because of various conservation oriented social, cultural and religious traditions. One such conservation tradition is that of dedicated forest patches or groves to some deities and spirits by the local community. Such so called traditionally preached near virgin religious places, referred to as sacred groves are repository of rich bioresources including medicinal plant varieties. There are many studies on protection of a large number of medicinal plant species in sacred groves of different parts of India (Bhakat and Pandit, 2003, Pandit and Bhakat, 2007). Bhakat and Sen (2008) in a study of three sacred groves in West Medinipur district, West Bengal revealed 30 species of medicinal and ethnomedicinal plants. They observed rapid disappearance of these natural conservation sites mainly due to grazing, fragmentation of the grove-owning families and erosion of cultural and religious beliefs and taboos. Therefore it is an urgent need to conserve sacred groves.

The medicinal plant conservationists should work with those people who own, manage or make use of these species, or else own or manage the land on which they grow.

The biological beneficiaries of medicinal plant conservation are not necessarily only the medicinal plants themselves. Conservation of medicinal plants and their sustainable use can lay important foundations for the conservation of natural habitats and ecological services more generally.

7. Medicinal plant resource in India

India is well known as the home of medicinal and aromatic crops. The use of herbals in primary healthcare in India and developing countries is related to the social setting. The tribal and non-tribal rural poor are the primary users and producers of medicinal plants. These people are generally deprived of modern medical help care system. Mostly elders and housewives possess the knowledge of medicinal plants. Each tribal group possesses specialised knowledge on medicinal plants and mostly keep exclusively within them. In India there are over 427 tribal communities and also sub-tribes or groups of about 300. The plants play a vital part in their culture, customs, traditional healthcare system, rituals etc. which helped to conserve plants in their natural habitat. The age old history of use of medicinal plants in India is mentioned below.

The indigenous health systems in India have two social streams:

- i) **Folk medicines or Local Health Traditions (LHT)** – the oral traditions found in the rural communities all across the country. This traditional knowledge is carried by millions of housewives with practical experience of home remedies, traditional birth attendants, local healers, bone setters, Açu-pressure specialists, dental care, poisons or veterinary care and village level herbal medicine healers. 25-60% of local plant species are used in the folk medicine practice.
 - ii) **Traditional, organised and codified Indian systems of medicine (ISM)** – This system includes Ayurveda, Unani, Siddha and Homeopathy. They have sophisticated theoretical foundations expressed in hundreds of manuscripts; some are of 3,000 years old.
- *Status of medicinal plants:* - India has rich diversity of medicinal plants. There are



Vringaraj

about 17,000 species of higher plants of which approximately 8,000 species are considered medicinal and used by village communities. Out of 20,000 medicinal plants globally listed by WHO, India shares 15-20%. Till now 90% of herbs used in manufacturing Ayurveda, Siddha, Unani and Homeopathy medicines in the country are supplied from the wild.

Out of 9500 identified and documented species of medicinal plants in India, 2000 to 2300 species are used in traditional medicines while at least 150 species are used commercially on a large scale.

In India, the herbal remedy is so popular and also considering its great potential in primary healthcare with minimum or no investment that the Government of India has created a separate department AYUSH (Ayurveda, Yoga and Naturopathy, Unani, Siddha and Homeopathy) – under the Ministry of Health and Family Welfare. In 2000 the National Medicinal Plant Board (NMPB) was established by the Government of India in order to deal with the herbal medical system. Further, the states have constituted State Medicinal Plant Board (SMPB) with an objective of promotion of cultivation and trading of medicinal plants in the state. The West Bengal State Medicinal Plants Board was set up in the year 2002. The distribution and sources of medicinal plants,

list of practitioners and institutions involved in treating the ailments by traditional system of medicine in India are presented in tables 2-5.

Table 2: Distribution of Indian medicinal plants

Biogeographic Zones	Estimated No. of Medicinal Plant Species
Trans Himalayan	700
North West Himalaya and West Himalaya	1700
Central and East Himalayas	1200
North East India Semi-Arid	2000
Gujarat-Rajwar	1000
Desert Region	500
Gangetic Planes	1000
Coastal Regions	500
Deccan Peninsula	3000
Western Ghats	2000

Table 3: Sources of medicinal plants in India

· Temperate forests	21 species 12%
· Tropical forests	70 species 40%
· Roadside and degraded forests	46 species 25 %
· Cultivation	36 species 20%
· Import	5 species 03%

Table 4: List of practitioners and institutions involved in different kind of traditional and non-traditional systems of medicine in India

System of medicine	Practitioners	Institutions registered
Ayurveda	223,000	117,774
Siddha	18128	10,268
Unani	30,456	1,559
Unregistered	189,416	---
Total	460,000	30,456

Mazid *et al.*, 2012

Table 5: Number and types of ailments treated by traditional system of medicine in India

Traditional	Carrier Subjects	Number
Mothers and housewife	Home remedies	Millions
Traditional birth Attendants	Normal deliveries	700,000
Herbal healers	Common ailments	300,000
Bone setters	Orthopaedics	60,000
Visha Vaidhyas	Natural poisons	60,000

Mazid *et al.*, 2012

8. Status of medicinal plants and their use in West Bengal

Considering the agro-climatic conditions and requirements of the manufacturing units in West Bengal, National Medicinal Plant Board and State Medicinal Plant Board have

selected following 37 (thirty seven) medicinal (32) and aromatic plants (5) for commercial cultivation in the state, i.e. *Withania somnifera*, *Solanum nigrum*, *Andrographis paniculata*, *Tinospora cordifolia*, *Aloe vera*, *Ocimum sanctum*, *Catharanthus roseus*, *Vitex negundo*, *Clerodendru mindicum*, *Solanum indicum*, *Gloriosa superb*, *Bacopa monnieri*, *Phyllanthus fraternus*, *Wedelia calendulacea*, *Desmodium gangeticum*, *Asparagus racemosus*, *Uraria picta*, *Rauwolfia serpentina*, *Terminalia arjuna*, *Saraca indica*, *Embllica officinalis*, *Holarrhenaantl dysenterica*, *Gmelina arborea*, *Alstonia scholaris*, *Azadirachta indica*, *Stereospermum suaveolens*, *Aegle marmelos*, *Terminalia belerica*, *Bauhinia purpurea*, *Oroxylum indicum*, *Terminalia chebula*, *Barringtonia acutangula*, *Kaempferia galangal*, *Ginkgo biloba*, *Pelargonium graveolens*, *Chlorophytum borivillanum* and *Cymbopogon winterianus*.

Some medicinal plants like *Bacopa monnieri* (Brahmi), *Eupatorium ayapana* (Ayapan), *Asparagus racemosus* (Satamuli), *Wedelia calendulacea* (Vringaraj), etc. are very suitable for cultivation in the districts of Hooghly, Nadia, Burdwan, Murshidabad, 24 Parganas (North and South), Howrah and Medinipore (East). Species of *Withania somnifera* (Aswagandha), *Rauwolfia serpentina* (Sarpagandha), *Aloe indica* (Ghritakumari), *Cassia angustifolia* (Sonapata), *Chlorophytum borivillanum* (Safed musli), etc. have potential of cultivation in the districts of Medinipore (West), Bankura, Birbhum and Purulia. Species of *Swertia chirata* (Chirata), *Atropa belladonna* (Belladonna), *Dioscorea alata* (Dioscorea), *Picrorrhiza kurroa* (Kotki), etc. have very suitable conditions for cultivation in Hills and Terai region.

Studies on medicinal plants in West Bengal:

- There are several reports of studies on district wise distribution, cultivation and marketing of medicinal plants with special objective of development of livelihood of rural people in



Aswagandha

the state. But there are gaps in consolidated information on status of medicinal plants and their sustainable utilisation for livelihood generation. Narendrapur Ramakrishna Mission Ashrama is actively and successfully working in cultivation and promotion of trade of herbal medicines produced with participation of rural poor women. A team of scientists led by Professor R. K. Bhakat are also engaged for last few years in studies on inventorying medicinal plants and their conservation in Medinipur (East and West) districts.

In a study in Coochbehar district, 46 species of 27 families were found to be used for medicinal purposes by various tribes (Datta *et al.*, 2014).

The tribal belt in West Bengal is rich in medicinal plants and local tribals living in the districts of South Bengal like Purulia, Bankura, Birbhum and Medinipur mainly depend for their livelihood on the collection and trade of these plants.

South-West Bengal is very rich in medicinal plants. A total of 43 species of medicinal plants belonging to 24 families and 40 genera were documented as used for treatment of different diseases. Among the different plant parts, the leaves were most frequently used for treatment of diseases followed by root, bark, and whole plant. It

was also used for treatment of inflammation, cough and cold, leukoderma, different skin diseases, ulcers and leprosy.

Rare medicinal plants traditionally used in the districts of South Bengal are, *Holarrhena pubescens* (Kurchi), *Datura innoxia* (Kalo Dhutra), *Viscum articulatum* (Mandala), *Metastoma malabathrium* (Futki), *Ehretia leavis* (Tamboli), *Martyria annua* (Bagh Nokh, Ulat Kanta), *Gymnema sylvestre* (Grmar), *Thunbergia grandiflora* (Nil lata), *Jatropha podagria* (Botol veranda) and *Rauwolfia tetraphylla* (Barachadar sarpagandha). Not only these 10 plants but also other medicinal plants are at the point of extinction (Tripathi *et al.*, 2003).

Medicinal plants distributed across Himalayas are very rich and are exploited commercially for decades. This has threatened the availability of medicinal plants in the Himalayas.

Trade of medicinal plants in West Bengal: - West Bengal is known to have more than 53 collectors and traders of medicinal plants. There are about 295 Ayurvedic manufacturing units as well as 18 exporters of herbal medicinal plants and products have been registered. Farming activities of medicinal plants are being undertaken at 8 different locations of the state. There is a requirement of annual 224.56 tonnes and 18.18 tonnes of medicinal plants for Ayurvedic and Homeopathic industries respectively. Highly utilised species in Ayurvedic medicine is Gulancha (*Tinospora* sp.) (20.54 tonnes/annum), whereas, Aswagandha (*Withania somnifera*) is highly utilised in Homeopathic practice (1.957 tonnes/annum) (SMPB, 2003).

In West Bengal the herbal preparations made from the traditional medicinal plants were mostly used to treat cut and wounds and stomach ache and abdominal disorder, for treatment of jaundice and liver problems and

to treat internal worms and fever. The result also showed that a good number of plants were used for multiple diseases.

Livelihood generation in West Bengal:- As compared to the traditional crops, the cultivation of medicinal crops has many advantages like, better returns, high domestic and export demand, fetch better price, easy storage for a long period, drought tolerant, low incidence of pest attack, protect biodiversity and others. So there is enough scope of livelihood development and employment generation through cultivation, processing and marketing of medicinal plants and also in the process of manufacturing medicines and other pharmaceutical products.

Considering the rising demand from industries and livelihood generation of the local communities, efforts were made to develop ex-situ propagation techniques and agro-technology package for commercial cultivation of selected Himalayan species of medicinal plants. Under this package, a great success was achieved in commercial utilisation of Chirata (*Swertia* species) in active participation of local women in their revenue land.

Promotion of cultivation and trading of medicinal plants in West Bengal: - Considering the diversity of medicinal plant species distributed from the Himalaya to Sundarbans and rich traditional knowledge in herbal health care in the state, serious attention is to be paid in promotion of cultivation of those selected indigenous species which have much more potential in cultivation and for livelihood generation of poor rural. The Hon'ble Chief Minister of West Bengal Mamata Banerjee has taken keen interest in livelihood generation through sustainable use of medicinal plants in the state. The respective departments and organisations have already initiated activities for success of the project.

The following activities can be taken up for participation of the beneficiaries in promotion of the projects.

- 1) The local Government should organise, through Biodiversity Management Committees (BMCs), regular training courses especially for the rural people on cultivation, marketing, and manufacturing with the help of National Medicinal Plants Board, Delhi, West Bengal State Medicinal Plant Board, Kolkata and Narendrapur Ramakrishna Mission Ashrama, South 24 Parganas, West Bengal.
- 2) Greater emphasis on awareness generation, about the advantages of using medicinal plants for home remedies through leaflets in local language, camps, different media and activities.
- 3) Growing of vegetables and medicinal plants for household use may be combined.

9. Biodiversity Act and medicinal plants

The main objectives of Biodiversity Act, 2002 are biodiversity conservation, sustainable utilisation of bioresources and fair and equitable sharing of benefit arising out of commercial utilisation of bioresources. The biological diversity conservation encompasses a whole lot of livelihoods based on flora, fauna and traditional knowledge and practices. In other terms, conservation of biodiversity is a sort of life insurance for the present as well as the future generation.

The Access and Benefit Sharing (ABS) mechanism has got the beneficiary role in respect of livelihood generation of the community and in the process medicinal plants are of great importance. The BMCs in the local bodies are responsible for identification of tradable bioresources of local areas and implementation of ABS mechanism out of the potential bioresource of any kind including medicinal plants. The ABS agreement should

have provision of sharing of benefits with the community towards developing of livelihood of the people who are protector, cultivator, collector or source of traditional knowledge and practices.

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Wahid's Persian Poem on Calcutta : Text with Translation

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The Persian Divan (=Collected Poems) of Abdur Rauf 'Wahid', who was a Persian poet of Calcutta in the 19th century, contains a remarkable poem on the city, under the caption "Qat'e dar Wasf-e Shahr-e Minucheher-e Kalkatte" (=A poem on the Description of the Beautiful City of Calcutta)¹, and I would like to reproduce below the poem, not in original script but rather in the form of transliteration, with its translation in English for those who may not enjoy the original.



Abdur Rauf Wahid

Qat'e dar Wasf-e Shahr-e Minucheher-e Kalkatte

*Chist dāni to shahr-e minu-chehr-e Kalkatte
Shahr-e nozhat-faza-ye Kalkatte.
Gham-zedā, jān-fezā, ravān-parvar
Chist, āb o havā-ye Kalkatte.
Bar zamini, ze bāgh-e khold-e barin,
Goyiyā shod benā-ye Kalkatte.
Karde har dard rā masihāyi
Dam-e bād-e sabā-ye Kalkatte.
Dar demad ruh dar tan-e bijān
Rowh-e rāhat-fazā-ye Kalkatte.
Mi dehad bu-ye golshan-e ferdows
Chaman-e khosh-havā-ye Kalkatte.
Nur-e chashm o sorur-e jān o del.
Tal 'at-e del-robā-ye Kalkatte.
Gere az delgoshā-ye nāfe-ye chin
Nekhat-e moshgsā-ye Kalkatte.
Gheyrat-e ru-ye delbarān-e sobh
Sobh-e har delgoshā-ye Kalkatte.
Rashk-e zolf-e mo 'ambar-e khubān
Shām-e jādu-namā-ye Kalkatte.
Ey khoshā āb-e gang-e nozhat-e jān
Shire-ye jānfazā-ye Kalkatte.
Va ān emārāt-e por-bahā-ye rafi'
Shān o showkat-fazā-ye Kalkatte.*



¹ *Entekhāb-e Divān-e Wahid*, Calcutta. 1891, Part-III, pp. 106-108.

*Oqde vā-goshā-ye jān-e hazin
 Golzamin-e fazā-ye Kalkatte.
 Yād-e bāgh-e jenān barad az del
 Bāgh o bostānsarā-ye Kalkatte.
 Del-e pākān-e bā-safā bekeshad
 Sāhat-e por-ziyā-ye Kalkatte.
 Rakhne dar zohd-e zāhedān feganad
 Sanam-e khosh-adā-ye Kalkatte
 Del-e karubiyān barad az jā
 Bot-e zohre-laqā-ye Kalkatte.
 Tāyer-e jān-e nātavān-e Wahid
 Mi parad dar havā-ye Kalkatte.*

Translation

I have tried to render the above poem into English, keeping in view that the repetition of the word *Kalkatte* (Calcutta) at the end of each verse in the original is retained the same way in translation.

A Poem on the Description of the Beautiful City of Calcutta

What do you know about the beautiful city of Calcutta?
 A city that brings joy is Calcutta.
 Grief-dispelling, life-expanding, soul-nourishing—
 Such is the climate of Calcutta.
 On the land brought down from the garden of paradise
 Seems to have been laid the foundation of Calcutta.
 The balm for every pain
 Is hidden in the morning breeze of Calcutta.
 The lifeless body gets revived
 By the exhilarating freshness of Calcutta.
 The fragrance of the garden of paradise
 Comes out from the flower-beds of Calcutta.
 Eyes get vision and hearts pleasure
 From the attractive skyline of Calcutta.
 The lid of the musk-pod is thrown open
 By the musky wind of Calcutta.
 The glowing faces of the beloveds loose their luster
 In front of the radiant morning of Calcutta.
 The black ringlets of the maidens envy

The enchanting nights of Calcutta.
The river Ganges, with its nourishing water.
Is the lifeline of Calcutta.
The tall palatial buildings
Reflects the glory of Calcutta.
The melancholy of the depressed soul is wiped away
By the pleasant surroundings of Calcutta.
The fascination for the garden of heaven goes away
On seeing the gardens and orchards of Calcutta.
The heart of the pious is laid astray
By the luminous environment of Calcutta.
The piety of the ascetics is shaken
By the coquetry of the damsels of Calcutta.
The heart of the angels is ravished
By the Venus-faced idols of Calcutta.
The bird of the feeble soul of Wahid
Flies in the open air of Calcutta.

Some Words on the books published under *Bibliotheca Indica* Series

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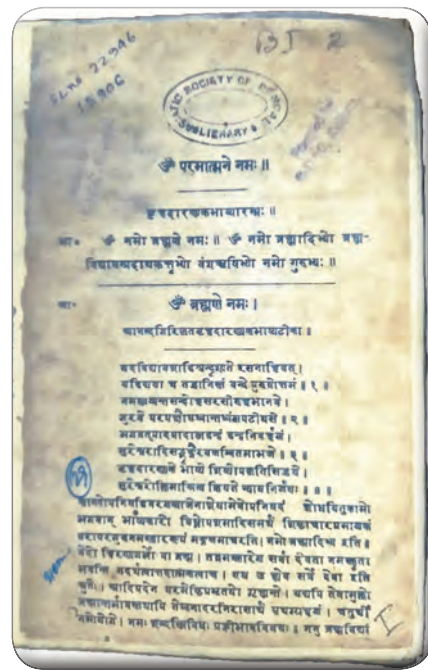
Publication Officer-in-Charge, The Asiatic Society

The list of books published so far by The Asiatic Society under *Bibliotheca Indica* (in short B.I.) series, the famous series known to the world of academics, has been printed in three instalments. First instalment of 120 titles has been published in the Monthly Bulletin for the month of April 2024. Second instalment of another 115 titles has been published in the Monthly Bulletin of May 2024 and the last instalment of 110 titles has been published in the Monthly Bulletin for the month of June 2024. Last no. of book published in the *Bibliotheca Indica* series is 345 upto June 2024.

A Committee was formed by the Council in December 1847 for the publication of the Vedas. Mr. Laidlay, the then General Secretary, suggested the publication under the series *Bibliotheca Indica* to be edited by a competent scholar aided by a batch of pundits. Dr. E. Roer was appointed as the Chief Editor on a salary of Rs. 100.00 only per mensem. His principal duty was to edit the text and also to translate the work into English, with the help of his colleagues. The first work undertaken in 1848 was *R̥gveda Samhita*.

But before four fascicules of the work could be published news arrived that the Court of Directors had made arrangements with Max Mueller for publication of that work, together with an English translation by the H. H. Wilson. The Society's first project under the series *Bibliotheca Indica*, had therefore, to be abandoned. Dr. Roer

then took up the work of editing and translating of *Bṛhadāraṇyaka Upaniṣad*, with the commentary of Sankara Acharya and the gloss of Ananda Giri. This book was published as B.I. No. 2. This is, in short, the history of the beginning of the world



First page of *Bṛhadāraṇyaka Upaniṣad* (B. I. series No. 2)

famous series *Bibliotheca Indica* of The Asiatic Society.

During the first eight years E. Roer edited eight works, viz., i) & ii) mentioned above, iii) *Chāndogya Upaniṣad*, with the commentary of Sankara Acharya and the

gloss of Ananda Giri, iv) *Taittirīya* and *Aitareya Upaniṣads*, with the commentary of Sankara Acharya and the gloss of Ananda Giri, and *Śvetāśvatara Upaniṣad*, v) *Īśa*, *Kena*, *Kaṭha*, *Praśna*, *Muṇḍa*, *Māṇḍukya Upaniṣads*, with the commentary of Sankara Acharya and the gloss of Ananda Giri, vi) *Bhāṣā Pariccheda* of Viswanath Tarkapanchanan, vii) *Naiṣadha Carita* of Harsadeva, and viii) *Taittirīya*, *Aitareya*, *Śvetāśvatara*, *Kena*, *Īśa*, *Kaṭha*, *Praśna*, *Muṇḍa* and *Māṇḍukya Upaniṣads*, and ix) *Sāhitya Darpaṇa* of Visvanatha Kaviraja – tr. and ed. by E. Roer, J. R. Ballantyne and Pramadādāsa Mitra. It may be mentioned that title under item no viii was translated into English.

Moreover, two works were taken up in between viz.,

i) Two works on Arabic Bibliography

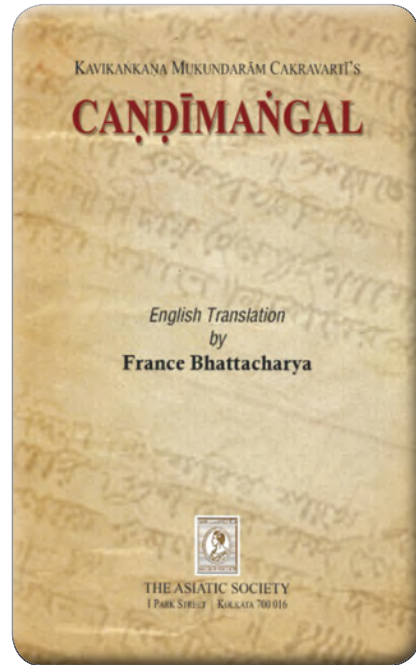
a) *Hudū-dūn-naḥw* by 'Abdulla al-Fākihī,

b) *Irshādu'l qāṣid ilā asnāl maqāṣid* by Shamsud-Dīn Muhammad b Ibrāhīm b Sā'id al-Anṣārī al-Akfānī as-Sakhāwī, and
ii) *Nīti-Sāra* of Kamandaka ed. by Ramanarayana Vidyaratna. Of these two, the first one was published in 1849 and the second work took the time of about 36 years.

Now, a question is arisen in mind—Do the Catalogues of manuscripts include in the list of publications under *Bibliotheca Indica* series? It may be mentioned here that a separate series titled "Catalogues and Bibliographical Works" is available with The Asiatic Society. And there are many books available under the series. It was first noticed that in 1917-18 a book titled "*Descriptive Catalogue of Bardic and Historical Manuscripts (Prose chronicles—Jodhpur and Bikaner States; and Bardic poetry of Bikaner State)* (3 pts.) ed. by L. P. Tessitori was published under the series *Bibliotheca Indica* (No. 231). In the mean time at least ten (10) catalogues have been published under "Catalogues and Bibliographical Works".

It was seen again in 1924 under B.I. Series No. 240 (*Concise Descriptive Catalogue of the Persian Manuscripts in the Collection of The Asiatic Society of Bengal*, by W. Ivanow), in 1926 under B.I. Series No. 241 (*Concise Descriptive Catalogue of the Persian Manuscripts in the Curzon Collection, The Asiatic Society of the Bengal*, by W. Ivanow), in 1927 under No. 244 (*First Supplement to the Concise Descriptive Catalogue of the Persian Manuscripts in the Collection of The Asiatic Society of Bengal*, by W. Ivanow), and in 1928 under series No. 248 (*Second Supplement to the Concise Descriptive Catalogue of the Persian Manuscripts in the Collection of The Asiatic Society of Bengal*, by W. Ivanow).

Then, after a gap of 11 years in 1939, under the *Bibliotheca Indica* Series No. 250 we find the book titled *Catalogue of the Arabic Manuscripts in the Collection of the Royal Asiatic Society of Bengal*, prepared by W. Ivanow, Revised and edited



Cover of *Caṇḍīmaṅgal*
(B. I. series No. 345)

by M. Hidayat Husayn, M. Mahfuz-ul Haq and M. Ishaque.

One more point is to be mentioned. The Asiatic Society also started a new series entitled "Memoirs of the Asiatic Society of Bengal" in 1905, long before introduction of another series named "Monograph". In the Memoirs series, papers worthy of publication in the Journal and some manuscripts worthy of publication under *Bibliotheca Indica* series have been published. It may be mentioned that "The Council appointed a Sub-committee in 1905 to consider the style, paper and design of the Society's publication. The Committee recommended 'the establishment of a quarto publication', *Memoirs*, for the large memoirs, the residue of small papers can be conveniently published in a single Journal styled the *Journal and Proceedings* of the Society' and also 'to facilitate the system of publishing papers, and to avoid the delay often caused by reference to Council, in accordance with the standing regulations, the Committee recommended that all arrangements with regard to the publication of papers be made by a standing Publication Committee, composed of the Editors of the *Journal and Proceedings* and that the Committee be given the powers now resting with Council, except when the publication

of a paper involves expenditure beyond the sanctioned grant'." However, the publication under Memoirs series was discontinued in 1933. In 28 years, a total number of 12 (XII) volumes, bearing parts of two to nineteen, has been published which are still in demand among the scholars. All the volumes now are out of print. We must try to place before you the details of 12 volumes of Memoirs through one of the issues of our Monthly Bulletin.

Now the point comes – what was said in the last issue (June 2024) of the Monthly Bulletin :

"Another important series under publications of The Asiatic Society is Monograph Series. Books published under this series are expected to be printed in an instalment in the Monthly Bulletin for the month of July 2024."

But, Sir, we just completed the printing of the list of the titles published so far under the *Bibliotheca Indica* series, in June 2024. It seems to me that before going to a different series we may discuss the pros and cons, in short, of the B. I. series. List of publications under Monograph Series would be made available to you through an issue of the Monthly Bulletin of The Asiatic Society.

The Asiatic Society and a few German Indologists: A Study

Jagatpati Sarkar

Life Member, The Asiatic Society

The Asiatic Society is no doubt one of the oldest institutions of Asia that started as a major means of building the gulf between the masses of Asia and a vast wealth of information in its collection. Actually The Asiatic Society started the knowledge movement within its limits. This was primarily devoted to the continuous and intensive cultivating of knowledge of the Indian sub-continent and the Asiatic subcontinent. Nearly thirty years after the English victory of Palassey, a British Judge, Sir William Jones on tour of duty in Bengal founded this scholarly institution that has weathered time and events and has gradually flourished bit by bit until the present time. From the beginning of its foundation the Society attained an esteemed position as a scholarly organisation, receiving patronage both from the Government and from learned individuals from different corners of the world. In this aspect the Germans were not lagging behind and their contributions were too much.

In this article I focussed only five German Indologists of 19th century like Eduard Röer (1805-1866), Ernest Trumpp (1828-1885), Georg Bühler (1837-1898), Henry Ferdinand Blochmann (1838-1878) and Rudolf Hoernlé (1841-1918) who worked either in The Asiatic Society of Bengal or contributed their studies in the renowned Journal of the Asiatic Society of Bengal or its Annual Report which acquired

a versatile repute all over the world. Their life and works are very multidimensional and this can help us to draw a sketch on their versatile reputation. They were closely associated with the Asiatic Society of Calcutta. Not only that their reputation helped the Asiatic Society to proceed his journey in a good intellectual manner, but Sir Monier Wiliams once told "Permit me, as an Englishman, to speak with pride of those great pioneers of Sanskrit learning, Sir William Jones, Wilkins, Colebrooke and Wilson. These are the men, without whose labours, you German Scholar would never have advanced with such rapid strides on the path of Sanskrit learning." This statement was right. As because Sir William Jones translated Kalidasa's *Abhijnana Sakuntalam* in English in 1789 and this became into the notice and well-known to great german poet Gothe, who was simply charmed by this ancient drama of India. Then the German translation of the great work came into publication by Foster. This was only in the 19th century, after Sir William Jones' translation of *Shakuntala* appeared in a German rendering, that thinkers of the Romantic Movement were impressed by Indian thought and literature. Two of the most influential disseminators of the ideas of that movement were August Wilhelm von Schlegel and his brother Friedrich. Both of them were learned Sanskritist. A.W. von Schlegel was then 51 years of age. The first chair of Indology was established at Bonn

University in 1818, A.W. von Schlegel became the first Professor of Sanskrit at Bonn University. He set up a printing press and printed the Bhagavad Gita in Devanagari letters together with a Latin translation. John Playfair's W.Hunter's, H.T.Colebrooke's and other scholar's essays on Hindu and Arabic Science articles were published in the Journal of the Asiatic Society, Vol-III, IV, V, VI, IX, XII, XVII) made it clear that the Asiatic Civilisations were in the past far more advanced than the European Civilisation. From 1788 to 1884, the scholars, most of them were Europeans who contributed to the *Asiatick Researches* and the Journal with a lot of their original works.

This will be evident from the figures collected from Rajendralala Mitra's work. The *Asiatick Researches* was at the time so much in demand that a pirated edition of the 1st volume was circulated in England in 1798 and some of the volumes of *Asiatick Researches* were translated in European languages.

Some of the distinguished scholars of the western countries, particularly German Scholars, who may be said to have introduced in India the modern methods of enquiry. They were Henry Ferdinand Blochmann, Eduard Röer, Ernest Trumpp, George Buhler, Rodolf Hoernle and others. Almost all the scientific writings of them were contributed either in the Journal or the Asiatic Researches at that time. This information is still available in the descriptive catalogue of Rajendralala Mitra's Centenary Review.

Henry Ferdinand Blochmann (1838-1878)

Henry Ferdinand Blochmann (1838-1878) was born at Dresden on January 9, 1838, and was first educated at the Krenz-Schule of the city. From 1855 to about September 1857, he studied Hebrew and oriental languages at the University at Leipzig, under Professor Fleisder. In 1858 he left Europe for India,

being chiefly induced to this step by his love for oriental studies. He came in Calcutta in September 1858. From 1862 to 1864 he was Professor of Mathematics at the Deveton College. In 1865 he took degree of Master of Arts from the University of Calcutta, having chosen Hebrew as the subject for his examination. This is related that when after some difficulty, examiners were found competent to decide upon his proficiency, they found that the student was far better acquainted with the language than they were themselves. In the same year, Blochmann rejoined the madrassa, as Assistant Professor. Blochmann Joined the Asiatic Society in 1864 and was associated with this institution for 14 years or so, holding the office of the Philological Secretary from 1868 to 1878. He became the Secretary of the Asiatic Society in succession to Mr. Heeley in 1868. Blochmann entered the Council of the Asiatic Society and retained the office until his death in July, 1878. His energetic and active participation in every department of Society's affairs was highly appreciated. Mr. M. Blochmann also made his observation on the sanad of Badshah Shah Alam of 1787 a.d. regarding conferring of Raja Bahadur to Pitambar, Grandfather of Rajendralala Mitra in the *Proceedings of the Asiatic Society of Bengal* in January 1890.

A German National, Blochmann rose from a private soldier in the Indian Army to the Principal (1875-1878) of the Calcutta Madrassa by dint of his hardwork and industry. He learnt Persian from Agra. Ahmed Ali was a teacher at the Calcutta Madrassa. Soon after his arrival in Calcutta he became a profound scholar in Persian and within a short period of 20 years produced half a dozen scholarly works and wrote about 200 papers for the Journal and *Proceedings of the Asiatic Society of Bengal*.

Blochmann's studies embraced a wide circle of Arabic and Persian literature, but

his special study was related to the history of India under the Muhammadan rule. In this connection, he wrote a book entitled *Contribution to the Geography and History of Bengal (Muhammeden period)* published from the Asiatic Society, Calcutta. This was reprinted in 1968. Manuscripts, inscriptions, coins and all records of the time also have been noticed by him frequently and fully in the Journal and Proceedings of the Society. His most important work, the translation of *Ain-i-Akbari* in 3 volumes (Calcutta, 1873) was completed by Colonel Jarrett.

Eduard Röer (1805-1866)

Eduard Röer made a name for himself on account of his research in Indian philosophy. His knowledge of philosophy and philosophy enabled him to publish a number of valuable editions of philosophical texts.

Johann Heinrich Eduard Röer was born on 26.10.1805 in Braunschweig. He studied philosophy in Königsberg and in 1833 qualified as a university Professor in Berlin. He studied philosophy for four years and published books on Spinoza and on metaphysics. Since he was interested in Indian literature and philosophy, he studied Sanskrit with Bopp in Berlin. He then entered the services of the East India Company and went to Calcutta in 1839. In 1841, he was appointed as the Librarian of The Asiatic Society of Bengal. He became Secretary of the Linguistic Department in 1847. He wrote several treatises for the *Journal of the Asiatic Society of Bengal*. He translated Lassen's *History of the Greek and Indo-Scythian Kings* and contributed *Bhascarae Acharyae Siddhanta Shiromani sic dicti operis pars tertia, Gunitadham, sive astronomiam continens, Latine vertit*, 1844, a Latin translation of the third part of Bhaskara's *Siddhantasiromani*, which is called *Ganitadhyaya* and deals with astronomy, *Vedantasara*, or Essence of the Veda, an

introduction into the Vedanta philosophy by Sadananda Parivrajakacharya, translated from the original Sanskrit appeared in 1845.

From 1847 onwards, Röer was editor of the series *Bibliotheca Indica*. This was a collection of mainly Sanskrit texts concerning Indian subjects, which were published by the Asiatic Society of Bengal. Röer edited 33 texts. The first edition he planned was that of the *Rigveda*, not knowing that Max Mueller was working on the same project at Oxford. However, only the first part, the first two lectures of the Samhita of the *Rigveda*, with the commentary of Madhavacharya and English translation of the text were published in Calcutta in 1849.

On Röer's suggestion the Asiatic Society decided to publish the *Upanishads* together with Shankara's commentary. Röer's previous study of philosophy was very useful. In a letter to A. Weber, he wrote, "Although the philological frame is very important, it is the philosophy of the Hindus which interests me most in Sanskrit literature and it has been my chief aim to bring about a better understanding of the same". Röer called the *Upanishads*, "sublime emanations of the human mind" and Shankara's commentary "a shining example of comprehensive erudition, patient research and philosophical acumen of the ancient Hindus." The following *Upanishads* were published by Röer in the *Bibliotheca Indica: The Brihad Aranyaka Upanishad*, 1849; *The Brihad Aranyaka Upanishad* and the commentary of Shankaracharya of its first chapter translated from the original Sanskrit, 1856; *The Chandogya Upanishad*, 1850, *The Taittiriya and Aitariya Upanishads* with the commentary of Shankara Acharya and gloss of Ananda Giri, 1850; *The Isa, Kena, Katha, Prasna, Munda, Mandukya Upanishads* with the commentary of Shankaracharya and the gloss of Ananad Giri, 1850, reprinted in 1880. The translation of the latter *Upanishads* appeared in 1853. Röer edited and translated

the *Bhasapariccheda*, a compendium of Nyaya philosophy, "Division of the categories of the Nyaya philosophy, with a commentary by Visvanath Panchanana", in 1850. He edited the *Sahityadarpana* or 'Mirror of Composition', a treatise on literary criticism; the text was translated into English by J.R. Ballantyne. The *Uttara Naishadacharita* by Sri Harsha with the commentary of Narayana, 1855, was edited by Röer. Together with E.B. Cowell he worked on *The Sambhita of the Black Yajur-veda*, with the commentary of Madhavacharya, Calcutta in 1860. Röer brought out a Bengali translation of Lamb's Tales from Shakespeare. A translation of the Hindu Law and Judicature from the *Dharma Shastra* by E. Röer and W.A. Montriou was published in Calcutta/ London in 1859.

Röer fell ill and had to leave India in 1861 after a 22 years of stay. He spent the rest of his life in his hometown, Braunschweig, devoting himself to scholarly pursuits. A treatise on Vaisheshika Philosophy. *Die Lehrsprüche der Vaiçeshika Philosophie von Kanâda* was published posthumously in the *Journal of the German Oriental Society*. Röer died in Braunschweig on 17.03.1866.

Ernest Trumpp (1828-1885)

Ernest Trumpp was an accomplished scholar in the Indian languages. He translated the Holy Book of the Sikhs, the *Adi Grantha* from Gurumukhi. His Sindhi Grammar has been reprinted. He collected and edited *Risalo*, The Sindhi work of Sufi poet Shah Abdul Latif of Bhit. He has to his credit a Pushto Grammar, which is still a standard work.

Ernest Trumpp was born on 13.03.1828 in Ilsfeld, near Besigheim in Württemberg where his father was a peasant and master carpenter. Trumpp was greatly interested in languages and when yet a schoolboy, he tried to write a grammar of the gypsy language. He was sent to Tübingen to

study theology after having passed his maturity examination. Besides Hebrew he studied Arabic and Sanskrit. His studies were interrupted in 1848, when Trumpp joined the liberal movement, the aims of which were universal suffrage, freedom of the Press, and a constitution. Trumpp was imprisoned for a short time in Hohenasperg. After his release, he completed his studies in Tuebingen. He went to London to continue his Oriental studies and became Assistant Librarian at the East India House. In 1852, the Church Mission Society asked him to go to study India modern languages and to write grammars and dictionaries.

Trumpp arrived in Bombay in 1854 and stayed in Karachi for some time. He learned Sindhi and was very soon able to read and understand the language. When he fell seriously ill, the Mission Board sent Trumpp to Jerusalem to recover. Later, Trumpp took his family to Peshawar. Within three weeks Trumpp learned enough Pushto to preach fluently in that language. He also took an interest in the Kafir dialect and in the Brahui and Tardu languages. He contributed a paper on the Kafir dialect to the *Journal of the Royal Asiatic Society*, 1868. No doubt that was the new dimension of his research which was focused in the Journal of the Asiatic Society of Bengal.

After an eighteen-month stay in Peshawar, Trumpp left on account of ill health. He lived in Stuttgart and later on in Pfullingen, working as a clergyman and writing papers in learned journals.

In 1870, the British Government asked Trumpp to translate the *Adi Granth*. Trumpp accepted the offer gladly but felt that it would not be possible to translate such a difficult book without native assistance. He, therefore, went to Lahore and stayed there till the end of 1871. He taught at the university and contacted learned Sikhs in Lahore and Amritsar in order to have difficult passages

explained. Trumpp noted grammatical forms and obsolete words and thus gradually drew up a grammar and a dictionary. Trumpp wrote the translation in German. It appeared in print in 1877.

In 1861, while in Germany, Trumpp wrote a paper "Das Sindhi im Vergleich zum Prakrit und den andern neueren Dialecten sanskritischen Ursprungs" ("Sindhi as compared to Prakrit and other recent dialects of Sanskrit origin"). He classified the different dialects of Sindhi and gave an introduction to the sound system and structure of Sindhi. Trumpp translated one poem, *Sur Sorathi*; of Shah Abdul Latif's Shah Jo Risalo. The edition of this work was brought out in 1866. It was the first time that this masterpiece of Sindhi Literature had been published, and this has been said by a Sindhi writer that, if Trumpp had not compiled and published the Risalo at the time he did, a good deal of Shah Abdul Latif's poetry would have been lost. A new edition of the Risalo was published in Bombay in 1956.

Trumpp's *Grammar of the Sindhi Language* appeared in 1872 (reprint Wiesbaden 1968), the material having been collected during his stay in Sind. A year later, his Pushto Grammar appeared, *A Grammar of the Pashto, or Language of the Afghans, Compared with the Iranian and North-India Idioms*, 1873. Trumpp also wrote a grammar of Nepali, which was never published. He also worked on a grammar of the Prakrit of the Middle Ages.

For one year Trumpp was Lecturer in Tübingen. In 1874, he was appointed as Professor of Semitic languages at Muenchen University. He published a number of papers concerning Arab Grammar in the Proceedings of the Muenchen of Sciences.

Trumpp went blind and spent the last years of his life in hospital in mental derangement. He died on 05.04.1885.

Georg Bühler (1837-1898)

Georg Bühler spent almost half of his academic career in India. He collected manuscripts and deciphered inscriptions. He also wrote on Indian law. His contributions in this field have become standard works.

Johann Georg Bühler, son of a clergyman, was born on 19.07.1837 at Borstel near Nienburg, Hanover. He studied Greek, Latin, Sanskrit, Zend, German, Persian, Armenian, Arabic, Archaeology and Philosophy at Goettingen University. His Sanskrit guru, T. Benfey, considered him to be his most promising student. Bühler obtained a Doctorate in 1858 for his thesis on Greek Linguistics. From 1859 to 1862 he stayed in London as a private tutor. Later he was assistant to the librarian of Queen Victoria at Windsor Castle. After a brief term at the Gottingen University Library, he was nominated Professor of Oriental Languages at Elphinstone College, Bombay, in 1863. Here he taught Sanskrit, Prakrit, comparative linguistics and Latin. He also studied Sanskrit with a pundit and was soon able to speak this language fluently. He was sent on a research tour of Southern Maratha and Kanara country in the cool seasons of 1866-69. In 1868, he was promoted to the post of Educational Inspector of Gujarat and Officer-in-Charge of search for Sanskrit Manuscripts in Bombay Presidency. On account of ill health he was pensioned in 1880. After recovery he accepted a Professorship of Indian Philosophy and Arcaheology in Wien in the same year. He held this post until his death on 08.04.1898.

The first article was written by Bühler related to comparative philology and Vedic Mythology. While in England, he compiled an index to Max Mueller's *History of Indian Literature*.

When Bühler was professor at Elephinstone College, Bombay he found

that Sanskrit texts for the use of students were needed. F. Kielhorn and Bühler were, therefore, appointed as editors and the Bombay Sanskrit Series was started by them. Bühler edited some books of the *Panchatantra* and the first part of the *Dasakumaracharita* in this series.

Bühler's travels in search for manuscripts began in 1866 and occupied him for years to come. A report of the Department of Public Instruction of the Bombay Presidency says: "By conversing fluently in the Sanskrit language with *Brahman Shastris* at the various places he visited, he succeeded to a great extent in inspiring confidence and in allaying the prejudices of persons who were at first unwilling to show their sacred volumes to an European: Bühler was the first foreigner to be allowed to examine the library at Jaisalmer in Rajasthan. There, he found Jain manuscripts and secular literature. He was very happy to note the great antiquity of his discoveries. These scripts later formed the basis of the work done by A. Weber, H. Jacobi and E. Leumann.

The general results of Bühler's search for manuscripts are found in numerous Government Reports and Catalogues, e.g., in his 'A Catalogue of Sanskrit Manuscripts contained in the Private Libraries of Guzerat, Kathiawad, Kachch, Sind and Khandes', published between 1871 and 1873 in the Annual Reports of the Royal Asiatic Society and in the Journal of the German Oriental Society. 'Bühler's Detailed Report of a Tour in Search of Sanskrit Manuscripts made in Kashmir, Rajputana and Central India', Bombay 1877, gave details about hitherto unknown authors and their works. Among them was Ksemendra, the Kashmir poet and polyhistor whose works are important for the study of the history of literature and the epics.

Bühler also contributed to the history of religions. He submitted a paper 'die

indische Sekte der Jaina' to the Vienna Academy, 1887. In the article 'Über Das Leben Des Jaina Mönches Hemachandra', 1889, he gave an account of Jain monk Hemachandra who was also a grammarian and lexicographer. The main aim of Bühler's occupation with epigraphy was to study the political history of India and he spent much time and patience in the decipherment of the edicts of King Ashoka. He edited the *Vikramānkadevacharita*, a chronicle composed by the Jaina Bilhana in the Bombay Sanskrit Series. He discussed *Rajatarangini*, the chronicles of the Kings of Kashmir. His plan of writing a complete history of India could not be carried out on account of his early death.

Bühler wrote an essay 'On the Origin of the Indian Brahma Alphabet'. Its revised edition, 1898, contained two appendices on the origin of the Kharoshthi alphabet and the letter-numerals of Brahmi, he contributed a treatise on Indian paleography to the *Encyclopedia of Indo-Aryan Research*. Bühler planned the work, enlisted collaborators and was general editor.

J. Jolly wrote his obituary in *Encyclopedia of Indo-Aryan Research*, 1899 and appended a bibliography of Bühler works.

Rudolf Hoernlé (1841-1918)

Rudolf Hoernlé furthered Indological Studies in modern Indian languages, epigraphy, history and the hitherto unexplored field of Numismatics. He was also an authority on ancient Indian Medicine.

August Friedric Rudolf Hoernlé was born on 19.10.1841 in Sikandra near Agra, where his father was a missionary. He was sent to Germany when he was seven years old and attended school in Stuttgart. He began his University Studies in Basel and went to London in 1860 to study Sanskrit with T. Goldstücker. He returned to India in 1865 and remained there till 1899. He

became Professor of Philosophy in Jai Narain College, Banares and in 1877, was appointed as Principal, of the Cathedral Mission College in Calcutta. From 1881 to 1899, he was Principal of the Madrasa in Calcutta. Hoernlé continued his Indological Studies after his return to England in 1900. He was a Member of the Royal Asiatic Society of Bengal in Calcutta and was elected as its Vice-President for some years.

Hoernlé was interested in many Indological subjects. He was the author of *A Comparative Grammar of Gaudian Languages with Special Reference to Eastern Hindi*, 1880. He edited a Prakrit Grammar, *Canada's Prakrit Laksana*, in Bibliotheca Indica, 1880. He published *The Uvasagadasao, being the seventh Anga of the Jains*, edited in the original Prakrit with the Sanskrit Commentary of Abhayadeva and the English translation with Notes, in *Bibliotheca Indica*, 1888-1890. Together with G.A. Grierson he compiled *A Comparative Grammar of the Bihari Language*, from 1885 to 1889. However this work was not completed. He wrote about thirty papers in Indian Numismatics. He edited Jain Pattavali's lists of teachers from which a historical legacy may be gleaned. This was published in the *Indian Antiquary* 19,20,21. When the Royal Asiatic Society celebrated its centenary, a Review of the Society's activities from 1784 to 1883 was published. The second volume of this review was written by Horenlé, who wrote on Indian antiquities, history, numismatics, epigraphy, language, and literature. He was able to compile a list of Indo-Greek kings from their coins.

Hoernlé's decipherment of the Bakshali Manuscripts was important for the study of Indian mathematics. The Bakshali Manuscripts is the name given to the mathematical work written on birch bark and found in the summer of 1881 near the village Bakshali (or Bakshalai) of the Yusufzai subdivision of the Peshawar district

(now in Pakistan). The village is in Mardana tehsil and is situated 50 miles from the city of Peshawar.

An Inspector of Police named Mian An-Qwan-Udin (whose tenant actually discovered the manuscripts while digging a stone enclosure in a ruined place) took the work to the Assistant Commissioner at Mardana who intended to forward the manuscript to Lahore Museum. However, it was subsequently sent to the Lieutenant Governor of Punjab who, on the advice of General A Cunningham, directed it to be passed on to Dr. Rudolf Hoernlé of the Calcutta Madrasa for study and publication. Dr. Hoernlé presented a description of the Bakshali Manuscript before the Asiatic Society of Bengal in 1882, and this was published in the *Indian Antiquary* in 1883. He gave a fuller account at the Seventh Oriental Conference held at Vienna in 1886 and this was published in its Proceedings. A revised version of this paper appeared in the *Indian Antiquary* of 1888. In 1902, he presented the Bakshali Manuscript to the Bodleian Library, Oxford, where it is still. This contains mathematical problems in *sutra* form and examples from daily life in (verses) shlokas. It also contains, in prose, answers to the problems and explanations. The language is the so-called Gatha dialect, in which a number of Buddhist texts have also been written. Hoernlé ascribed the birch bark manuscript to the 8th or 9th Century and the text itself to the 3rd or 4th century A.D.

Hoernlé's work on the Bower manuscript was of equal importance. This manuscript was named after Lieutenant. H. Bower, who had found it in 1890 in an old stupa near Kashgar in Central Asia. For palaeographical reasons, this manuscript is ascribed to the 4th Century A.D. One of the texts describes different medicines and their ingredients, ointments for the eyes and garlic, which is said to increase man's lifespan by one hundred

years. The second text has prescriptions of fourteen medicines to be used externally and internally. The longest text is called *Navanita* and has extracts from older medical text books. All texts are material. The language is a mixture of Prakrit and Sanskrit. Hoernlé published these texts under the title *The Bower manuscript, Facsimile Leaves, Nagari Transcription, Romanised Transliteration and English translation with notes*, Calcutta, 1893-1912.

In the course of his work on the Bower Manuscript, Hoernlé acquired knowledge of Indian medical literature and wrote *Studies in the Medicine of Ancient India*, part 1, Osteology, 1907. He also wrote several other articles on Indian medicines in the *Journal of the Royal Asiatic Society* and *Archiv für Geschichte der Medizin* I, 1908.

The Bower Manuscript and other finds made in Central Asia led to further expeditions to Turkestan. Hoernlé took a continued interest in these findings and reported them in *Manuscript Remains of Buddhist Literature found in Eastern Turkestan*, 1916.

G.A.Grierson compiled a bibliography of Hoernlé's works which he appended to his obituary in the *Journal of the Royal Asiatic Society*, 1919. He died on 13.11.1918 in Oxford.

References

- 1) *Time Past and Time Present: Two Hundred and Twenty-five years of the Asiatic Society*, The Asiatic Society, Kolkata, 2008.
- 2) *German Indologists: Biographies of Scholars in Indian Studies Writing in German* by Valentina Stache Rosen, Max Muller Bhavan, New Delhi, 1990.

Special Lecture 'The Rebel Poet: Revolutionary Influence of his works on Indian Freedom Movement'

The Asiatic Society organised a Special Lecture on 7th June 2024 at 03:00 p.m. at the Humayun Kabir Hall of the Society. Professor Swapan Kumar Pramanick, President of the Society introduced Dr. Pankaj Kumar Roy, Principal, Jogesh Chandra Chaudhuri College to the audience. Dr. Satyabrata Chakrabarti, General Secretary of the Society offered a flower bouquet to Dr. Pankaj Kumar Roy as a gesture of appreciation on behalf of the Society following which Dr. Roy delivered an engrossing lecture to the audience on the topic 'The Rebel Poet: Revolutionary Influence of his works on Indian Freedom Movement'. The programme further continued with an interactive session and concluded with a Vote of Thanks given by Professor Mahidas Bhattacharya, Former Director and Professor of Linguistics, School of Languages and Linguistics, Jadavpur University & Member of the Academic Committee, The Asiatic Society.



L to R : Professor Swapan Kumar Pramanick and Dr. Pankaj Kumar Roy

Some valuable Persian manuscripts from R.K. Dev Collection of the Asiatic Society

Syed Shah Fadil Irshad Al-Quaderi

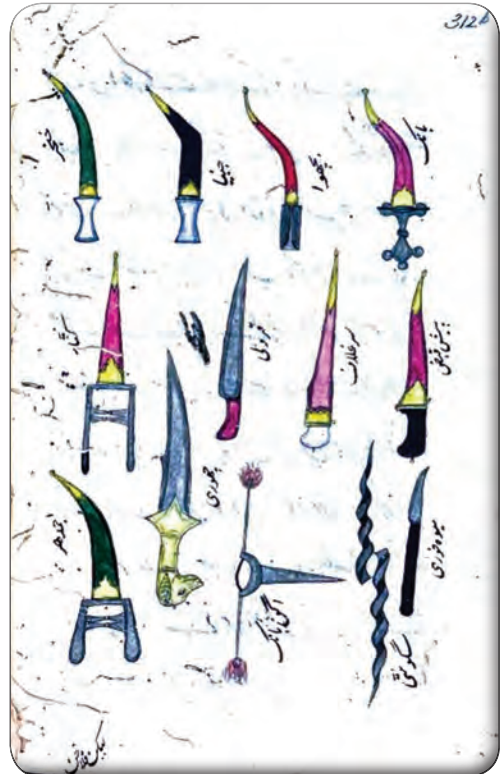
Cataloguer, (Museum) The Asiatic Society

There is a vast collection of various manuscripts of high value and standard in different languages and on various subjects lying in the Museum of the Asiatic Society, Kolkata consisting of Arabic, Armenian, Assamese, Bengali, Burmese, Chinese, Gujrati, Gurumukhi, Javanese, Kanadese, Marathi, Nagari, Newari, Oriya, Persian, Rajasthani, Sarada, Sinhalese, Siamese, Turki, Tibetan and Urdu, comprising of Theology, Grammar, Literature, History, Geography, Encyclopaedia, Lexicon, Medicine, Veterinary, Pharmacopeia, Alchemy, Mathematics, Astronomy, Astrology and Physics etc., which were collected from various sources in different periods.

As far as the entire collection of the Arabic, Persian and Urdu Manuscripts of the Asiatic Society is concerned, it is an extensive collection par excellence. The existing collections as per the catalogues are Arabic Society Collection, T.C. Collection, Persian Society Collection, Persian Curzon Collection, R.K. Dev Collection, Urdu Society Collection, I, II, III and A.R. Collection. Some of them are dating back as 12th century A.D., such as the well-known Arabic poetical work of the Pre-Islamic Arabia, bearing the title شرح قصائدالمعلقات السبع "Sharḥ Qaṣā'id Al-Mu'allaqātī's-Sab". There are numerous illuminated and illustrated manuscripts of different subjects, having unique calligraphy, likewise the Urdu work relating to the attributes of the Kings (Sulṭāns of Delhi) and

their battleships, bearing the title منتخب الفوائد "Muntakhabu'l-Fawā'id".

Some of them have very rare, rich and varied textual contents with beautiful miniature illustrations; among them the famous Persian work قصه نوش آفرین "Qissa-i-Nūsh Āfarīn" may be mentioned, it is a story



An illustration from "Muntakhabu'l-Fawā'id" showing different types of weapons used in the battlefield.

dealing with the adventures of princess Nūsh-Āfarīn and her lovers. The work is extremely popular in Persia.

Among the above mentioned R.K. Dev Collection, approximately 250 manuscripts are present, but most of them are incomplete, as well as the names of the authors are not known. Some valuable and interesting manuscripts are to be found as follows:

- | | | |
|-----|---|---------------------|
| 1. | Title: 'Iyār-i-Dānīsh
Author: Abū'l-Faḍl b. Mubārak 'Allāmī
It contains a version of the well-known work of Kalīla and Dimna consisting of Anecdotes. | عیار دانش |
| 2. | Title: Niṣābu's-Ṣibyān
Author: Abū Naṣr Muḥammad (or Mas'ūd) b. Abī Bakr b. Ḥusayn Farāhī, or Farāhānī
A well-known versified Arabic vocabulary, with their Persian equivalents. | نصاب الصبیان |
| 3. | Title: Qawā'id-i-Fārsī
Author: Muḥammad Afḍal
It contains Persian Grammar. | قوائد فارسی |
| 4. | Title: Risāla dar 'Ilm-i-Kalām
Author: Abu'l Qāsim
A work on Logic. | رساله در علم کلام |
| 5. | Title: Qirānu's-Sa'dayn
Author: Amīr Khusraw
A versified copy, relating to the historic meeting of Sulṭān Mu'izzu'd-Dīn Kayqubād with his father Sulṭān Naṣīru'd-Dīn Boghrā Khān. | قرآن السعیدین |
| 6. | Title: Risāla Ghulām Raḍā
Author: Ghulām Raḍā
The treatise deals with Music. | رساله غلام رضا |
| 7. | Title: Ṣalātiya
Author: Shamsu'd-Dīn b. Suhrāb b. 'Alī al-Māzindarane al-Afrābilī
The work deals with prayers. | صلاتیہ |
| 8. | Title: Iqbāl-Nāma-i-Jahāngīrī
Author: Muḥammad Sharīf surnamed Mu'tamad Khān
It deals with the history of the reign of Akbar and the beginning of Jahāngīr's reign. | اقبال نامہ جہانگیری |
| 9. | Title: Khirad Afzā
Author: Muḥammad Rafī'
A concise work on Persian rhetoric and prosody. | خرد افزا |
| 10. | Title: Nān-u-Halwā
Author: Bahāu'd-Dīn Muḥammad b. Ḥusayn b. 'Abdu's-Ṣamad al-Jabalī al-'Āmilī
A mystical Mathnawī (poem), most popular in Persia. | نان و حلوا |

11. **Title:** Nuskhā-i-Niṣāb Badī'i
Author: Badī'i
A concise versified School vocabulary of Arabic and Persian words. نسخة نصاب بديعي
-
12. **Title:** Nafā'isu'l-Funūn
Author: Muḥammad b. Maḥmūd al-Āmulī
A well-known encyclopaedia, dealing with different disciplines. نفائس الفنون
-
13. **Title:** Dīwān-i-Shaukat
Author: Abū Ishāq or Muḥammad Ishāq Bukhārī, pseudonym Shaukat
A collection of poems. ديوان شوكت
-
14. **Title:** Tarjuma-i-Nādpūrān
Author: --
A Persian translation of Nādpūrān. ترجمة نادپوران
-
15. **Title:** Siyaru'l-Muta'akhhirīn
Author: Ghulām Ḥusayn b. Hidāyat 'Alī Khān b. 'Alīmu'l-lāh b. Fayḍu'l-lāh aṭ-Ṭabāṭabāī
A well-known work on the history of India concerning the period from 1118/1707 (death of Aurangzib) down to 1195/1781. سير المتأخرين
-
16. **Title:** Sirr-i-Akbar
Author: Prince Dārā-Shikūh
It is a well-known Persian translation of Upanishads. The author was the eldest son of the Emperor Shāh Jahān and a scholar associated with the Qādirī order of Ṣūfism. سر اكبر
-
17. **Title:** Falāḥ-Nāma
Author: Muḥammad Faḍl
A work on Agriculture. فلاح نامه
-
18. **Title:** Dīwān-i-Ḥaydar
Author: Ḥaydar Kalūchī
An anthology containing Ṣūfic poems. ديوان حيدر
-
19. **Title:** Dīwān-i-'Urfī
Author: Muḥammad b. Zaynu'd-Dīn 'Alī b. Jamālu'd-Dīn Shīrāzī, pseudonym 'Urfī.
A collection of poems. ديوان عرفي
-
20. **Title:** Ḥauzu'l Ḥayāt
Author: --
It contains Purānic texts. حوض الحيات
-
21. **Title:** Muntakhabāt-i-Mahābhārata
Author: Sayyed Sa'īdu'l-lāh
It deals with Mahabharata. منتخبات مهابهارت

22. **Title:** Jawāhir-Nāma جواهر نامه
Author: --
 The work deals with mineralogy.
23. **Title:** Dīwān-i-Ṭālib Āmūlī دیوان طالب آمولی
Author: Muḥammad Ṭālib Āmūlī
 A collection of poems.
24. **Title:** Zafar Nāma زفر نامه
Author: --
 A work on history.
25. **Title:** Sharḥ-i-Bustān شرح بوستان
Author: --
 A commentary on the well-known poetical work “Bustān” by Muslimu’d-Dīn Shaykh Sa’dī ash-Shīrāzī.
26. **Title:** Qulzum-i-Asrār قلزم اسرار
Author: Mīa Khālīd Muḥammad
 A work on Ṣūfism.
27. **Title:** Dīwān-i-Saqqā دیوان سقا
Author: Darwīsh Bahrām Bukhārī, Surnamed Saqqā
 A collection of poems.
28. **Title:** Rasā’il-i-Ṣuhūrī رسائل ظهوري
Author: Nūru’d-Dīn Muḥammad Turshīzī
 A well-known composition of Ṣuhūrī.
29. **Title:** Inshā-i-Yūsufī انشاء یوسفی
Author: Yūsuf b. Muḥammad Harātī, Surnamed Yūsufī
 A well-known treatise on epistolography.
30. **Title:** Fānūs-i-Khayāl فانوس خیال
Author: Abu’l-’Ajz Arshad Ashraf, pseudonym Khayāl
 A treatise on Persian grammar and prosody.

I trust, this collection of the Persian manuscripts of the Asiatic Society will certainly benefit the researchers and readers in pursuing their research works.

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4. Time Past & Time Present. (The Asiatic Society)

Farhang-i Aurangshahi : Manuscript in the Collection of The Asiatic Society

Aparajita Das

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The Asiatic Society of Kolkata is well-known for housing rare and marvellous artefacts of Indian History. The *Farhang-i Aurangshahi* is one such unique and exquisite manuscript held at the Museum of the Asiatic Society. It is bound in two volumes, each ranging at approximately 300 folios. It

is an encyclopedia of natural history covering a wide variety of topics like agriculture, entomology (science of insects); flowers; edible flowers; gemology; botanical discourse, architecture etc. The organisation of the text is not amply clear and a very careful and critical reading will help explicate the logic of its

structure. The text is dedicated to Emperor Aurangzeb by Hidayatullah b. Muhsin al-Quraysh al Hashimi al-Jafari. We do not have many details about the author and may have been written in a regional court at the coast of either Gujarat or Bengal. The copy with The Asiatic Society may have been a later one (either from the late seventeenth century or the eighteenth century) and seems to be the only one known in the world so far. It is incomplete in portions. For instance, certain folios indicate blank space left for illustrations that never made their way into the final text. Despite these blind-spots, this text is a historian, art lover or naturalist's delight because it opens a new avenue of natural history through scientific discourse, drawings and even poetry.

The three page preface



provides a sophisticated and detailed account of its contents. These include about eight chapters in the form of (literally gates) which are further divided into *faslas* or sub-sections. The contents of the chapters include:

- First *bab* (*bab-i awwal*):** a description of the elements
- Second *bab*:** a description of wild beasts and wonderous monsters
- Third *bab*:** a description of beasts of the desert who feed on berries
- Fourth *bab*:** a description of birds
- Fifth *bab*:** a description of beasts of the water
- Sixth *bab*:** a description of reptiles, insects, locusts, rodents and so on
- Seventh *bab*:** a description of [incomplete heading]. This portion largely refers to agriculture and horticulture and provides descriptions of trees, plants, vegetables and crops.
- Eighth *bab*:** a description of minerals and fossils

Conclusion

An important feature of the *Farhang-i Aurangshahi* is that it is a composite text. In each section dedicated to a plant, insect, animal or gem, there is a reference to other previous texts like the *alfaz-ud adwiya* or other medicinal treatises and even poet's praises of such elements, explaining how previous authors have praised or evaluated a plant or animal's benefits and harms in a medicinal treatise or even in poetry. Secondly, several chapters include rich illustrations of the types and varieties. For art historians, especially interesting sections are on aquatic and wonderous animals including dragons,



with detailed and varied illustrations. Other attention-grabbing sections include detailed and varied figures of a wide variety of bees, insects, cattle and birds.

It is worth-remembering that medieval or pre-modern texts demonstrate that the line between science and occult were not clearly defined; instead the two can be seen closely intertwined. So, it is no surprise that there are elaborate sections on *tilism*, and portions that mention Quranic injunctions and sayings of the Prophet Mohammad; on the benefits of conducting agriculture or the interpretations of seeing particular animals or plants in *dreams*, according to the Islamic science of dream-interpretation or *tabir*. A general glance at the beautiful and detailed illustrations along with the generous textual information reveals that this manuscript is a gem for anyone interested in Mughal history, science, natural history or agriculture.

বাংলা পুথিচর্চার ধারায় মহামহোপাধ্যায় হরপ্রসাদ শাস্ত্রী

সৃজন দে সরকার

গবেষক, দি এশিয়াটিক সোসাইটি

যে মানুষটির জীবন শুরু হয়েছিল ভাটপাড়া পণ্ডিত সমাজে টোলের পড়াশুনোতে, যিনি বিদ্যাসাগর-বঙ্কিমচন্দ্রের সম্মেহ সান্নিধ্য পেয়েছিলেন— তিনি বাংলা তথা ভারতীয় সংস্কৃতির অন্যতম লুপ্ত তীর্থ উদ্ধারকারক তো হবেনই। এশিয়াটিক সোসাইটি, প্রাচ্যবিদ্যাচর্চার পীঠস্থান— এখানে ১৮৮৫তে রাজেন্দ্রলাল মিত্র নিয়ে আসেন সেই তরুণকে, যিনি মহামহোপাধ্যায় হরপ্রসাদ শাস্ত্রী। ১৮৯১তে মিত্র মশাই প্রয়াত হলে শাস্ত্রী মশাই হয়ে ওঠেন সোসাইটির পুথিচর্চার অন্যতম ব্যক্তিত্ব। তাঁদের মিলিত উদ্যোগে নির্মিত হয় ১৫ খণ্ডে *ডেসক্রিপ্টিভ ক্যাটালগ*। এই খণ্ডগুলোর জন্য প্রয়োজনীয় ভূমিকা লিখেছিলেন শাস্ত্রী মশাই। অবাধ হতে হয়, রাজেন্দ্রলাল মিত্র সোসাইটির জন্য পুথি সংগ্রহ করেছিলেন ৩১৫৬টি। তাঁর পরবর্তীতে সোসাইটির পুথি সংগ্রহ শাস্ত্রী মশাইয়ের প্রচেষ্টায় পৌঁছেছিল ১৪,৬৮৬টিতে। তাঁর *ডেসক্রিপ্টিভ ক্যাটালগ*-এর ১২নং খণ্ডে মেলে ‘দেশীয় ভাষা ও সাহিত্য’ নিয়ে আলোচনা। সেখানে রয়েছে বাংলা, হিন্দি, মৈথিলী, প্রাকৃত, অপভ্রংশ, রাজস্থানী, নেপালি পুথির কথা। এখানেই শেষ নয়, তিনি বঙ্গীয় সাহিত্য পরিষৎ-এ এসে যোগদানের পরে পরিষদের জন্যেও পুথি সংগ্রহ করেন। একই পুথির বেশি কপি পেলে তা পাঠিয়ে দিতেন ইন্ডিয়া অফিস লাইব্রেরি, বার্লিন, প্যারিস, অক্সফোর্ড—সহ নানা গ্রন্থাগারের জন্য। পুথি সংগ্রহ বা তার পাঠভেদ নিয়ে তাঁর নিত্য সম্পর্ক ছিল সিলভা লেভি, সিসিল বেভেল, ইয়ামান ইয়াকবি, জর্জ গ্রিয়ারসনের সঙ্গে।

আমাদের আলোচনার প্রেক্ষণবিন্দু হরপ্রসাদ শাস্ত্রী’র আদি ও মধ্যযুগীয় বাংলা পুথিচর্চা বিষয়। সেখানে প্রাসঙ্গিক সূত্রে চলে আসবে তাঁর পুথি সম্পাদনা, ভূমিকা রচনা, পরিষদের সভাপতির অভিভাষণ, স্বতন্ত্র প্রবন্ধ রচনা, মৌলিক সাহিত্য রচনা ইত্যাদি প্রসঙ্গও। এসবই তাঁর পূর্ববর্তীদের থেকে তাঁকে কিছুটা স্বতন্ত্র আসনের দাবী করে- কারণ, *বেনের মেয়ে* যেমন সহজিয়া বৌদ্ধ সাধকের জীবন ও চর্চা থেকে নানা বিবরণের সমাহার, তেমনি *কাঞ্চনমালা* বাংলার রূপকথাতে প্রাপ্ত চরিত্রের প্রকাশবহ রূপ। রাখালদাস বন্দ্যোপাধ্যায় *বেনের মেয়ে*-র সমালোচনায় এই দিকটিকে বড় করে দেখেছেন।

সুকুমার সেন শাস্ত্রী মশাইয়ের কিছু গুরুত্বপূর্ণ পুথি সংগ্রহের বিষয়ে আমাদের সচেতন করেছেন, তাতে অন্যতম—চর্চা’র সংগ্রহ। যেটি *হাজার বছরের পুরাণ বাঙ্গালা ভাষায় বৌদ্ধগান ও দোঁহা* নামে সাহিত্য পরিষৎ থেকে প্রকাশিত। এটি বাংলা সাহিত্যের প্রচলিত কালরৈখিককে অনেকটাই পিছিয়ে দেয়। এখানে, জাতীয়তাবাদী ও নিজেদের অতীতসন্ধানী ‘প্রচেষ্টা পর্ব’-র দেখা মেলে। চর্চা’র পরে মেলে অশ্বঘোষ’এর *সৌন্দরনন্দ কাব্য*, সন্ধ্যাকর নন্দী’র *রামচরিত* (যেটি কলহনের পরে দ্বিতীয় ঐতিহাসিক গ্রন্থ), বিদ্যাপতি’র *কীর্তিলতা*। এছাড়াও, জ্যোতিরীশ্বর’এর *বর্ণনরত্নাকর* (এটি পূর্ব ভারতীয় আর্ঘভাষার প্রথম গদ্য নিদর্শন)।

‘আমাদের ইতিহাস’ প্রসঙ্গে শাস্ত্রী মশাই জানিয়েছেন,

‘যেমন কলিকাতার গঙ্গায় বয়া ভাসে, তেমনি ভারতবর্ষের ইতিহাসে কতকগুলি রাজবংশ ভাসিতে লাগিল।’

এমন কথা থেকে মেলে তাঁর নিজস্ব ইতিহাসচিত্তার দিকটি। যা পাবলিক হিস্ট্রি-কে সন্ধান করে চিনে নেওয়ার দিককেই নির্দেশ করে। সেখানে তাঁর অনুসন্ধান দেশের সাধারণ মানুষের সমাজবৃত্তের জীবনযাপন। তাদের ধ্যানধারণা, কৃষি, কারু উৎপাদন, ভাষার বিকাশ, শিল্পের বিবর্তন, ধর্মের রূপান্তর ইত্যাদির দিকটি প্রকাশ পায়।

এশিয়াটিক সোসাইটিতে থাকাকালীন যে কাজটি শুরু হল তা বেঙ্গল লাইব্রেরির গ্রন্থাগারিক পদের দায়িত্ব। সেখানে তাঁকে প্রতিবছর প্রকাশিত গ্রন্থের ওপরে নির্দিষ্ট সমালোচনা লিখে রিপোর্ট তৈরি করতে হত। এরপরের জীবনে বঙ্গীয় সাহিত্য পরিষদে আগমন। বাঙালীর উনিশ শতকীয় আত্মবিষ্কারের স্বপ্রতিষ্ঠান এই পরিষদ। এটি বিদেশী শক্তির হাত থেকে মুক্ত। এমনই প্রতিষ্ঠান ছিল আবদুল করিম সাহিত্য বিশারদের হাতে তৈরি বরেন্দ্র অনুসন্ধান সমিতি।

১৯০১এ রবীন্দ্রনাথ ঠাকুরের সঙ্গে শাস্ত্রী মশাই বাংলা ভাষার খাঁটি বা প্রমিত রূপ ও প্রয়োগবিধি নিয়ে আলোচনা করেন সাহিত্য পরিষদে। তারই ফলশ্রুতি তাঁর প্রবন্ধ ‘বাঙ্গলা ব্যাকরণ’। তাঁর পুথিচর্চার নানা উল্লেখ থেকে তিনি দেখিয়েছিলেন ‘তেল’ সংস্কৃততে হয় ‘তৈল’, প্রাকৃতে হয় ‘তেল্ল’, প্রাচীন বাংলায় হয়েছে ‘তেল’। তিনি লিখেছেন, “...আমরা যদি তেল লিখি, চণ্ডী অশুদ্ধ হইবে কেন?” এমনই নানা বিবেচনা স্পষ্ট করে তাঁর পুথিচর্চা। সেইসঙ্গে প্রাচীন শিলালিপি, স্থাপত্য, ভাস্কর্য, লোক সংগ্রহ ইত্যাদি। তিনি প্রাচীন বাংলা পুথির পাঠোদ্ধার, তুলনামূলক বিচারে সার্বিক পাঠ, লিপির ছাঁদ নির্ণয়, ভাষার বৈশিষ্ট্য নির্ণয়, বিষয়ের তাৎপর্য, কালির ব্যবহার, সেই অনুসারে প্রাচীনতা ইত্যাদি বিষয়গুলোর মধ্য দিয়ে পুথির পাঠ নির্ণয় করতেন। তাঁর রচিত ‘পুথিচর্চা বিষয়’ রচনাটিকে

এশিয়াটিক সোসাইটি প্রকাশিত *আস্পেক্ট অফ ম্যানুস্ক্রিপ্টোলজি*-র প্রথম ও আদি রচনা হিসাবে স্থান দেওয়া হয়েছে।

পুরনো পুথির বিশ্লেষণে বাংলা সাহিত্যের খণ্ডিত অথচ তথ্য ও নতুন দৃষ্টিভঙ্গির পরিচয় তিনি দিয়েছেন দুটি লেখাতে। একটি ১৮৯১তে প্রকাশিত ‘ভার্নাকুলার লিটারেচার অফ বেঙ্গল বিফোর দি ইন্ট্রোডাকশন অফ ইংলিশ এডুকেশন’, অন্যটি ১৮৯৪তে প্রকাশিত ‘অ্যান্সিয়েন্ট বেঙ্গলি লিটারেচার আন্ডার মহামাডান পেট্রোনেজ’। এই দুটি লেখা মিলিয়ে পড়লে মধ্যযুগীয় সাহিত্যের একটি সচিত্র রেখা মেলে।

আত্মপরিচয়ের সন্ধান, স্বদেশ সংলগ্নতার খোঁজে তিনি ১৮৯৭, ১৮৯৮, ১৯০৭ এবং ১৯২২-এ নেপাল যাত্রা করেন। উদ্ধার করে আনেন তান্ত্রিক বৌদ্ধ সহজিয়াপন্থীদের লিখিত *চর্যাপীতিকোষবৃত্তি*। তিনি তাঁর প্রবন্ধ ‘বাঙ্গলার পুরানো অক্ষর’-এ নানা পুথি, শিলালেখ থেকে উদাহরণ ও চিত্রের সাহায্যে বাংলার আধুনিক লিপির একটি বৈজ্ঞানিক লিপিতত্ত্ব বিবর্তন রেখা নির্দেশ করেন। আগে মুসলমান আমলের আগের লিপি জানা ছিল না। তিনি মনে করতেন সেটি আরও প্রাচীন, সেটির সাক্ষ্য দিতেই তিনি এই প্রবন্ধ লিখে বাংলার প্রাচীনতম সংস্কৃতি হতে আগত লিপির কথা বলেন। তাতে প্রাচীনতম ক্ষেত্র থেকে আনেন যেমন *কালচন্দ্রযান*, *ক্ষণভঙ্গসিদ্ধি*, *বজ্রাবলী*, *হেবজ্রতন্ত্রটীকা*, *দোঁহাকোষপঞ্জী* ইত্যাদি পুথি। পাশাপাশি তিনি দেখিয়েছিলেন, *অঙ্গদের রায়বার*, *কাশীদাসী আদিপর্ব*, *শ্রীকৃষ্ণকীর্তন* ইত্যাদিরও পুথি। তিনি মন্তব্য করেছেন,

‘সে ভাষাকে বৌদ্ধ-প্রাকৃতই বলা, প্রাকৃতই বলা, অপভ্রংশই বলা, আর যাই বলা- ... আমি না হয়, বাংলাদেশের ভাষাকে বাংলা নাম দিলাম।’ (১৩২৯-এর বঙ্গীয় সাহিত্য পরিষৎ অভিভাষণ)

তিনি পুথির বিষয়কে তিনটি ভাগ করেন কাজের জন্যে— তা হল বৌদ্ধ পুথি, ব্রাহ্মণ্য পুথি,

ইসলামীয় পুথি। এদের মধ্যে মিশ্র পুথির সংখ্যা কম নয়। তবে, কালের বিচারে না গিয়ে তিনি এই ভাগ করে পরবর্তী গবেষকদের কাজের অনেকটা সুবিধা করে দিয়েছেন। তিনি পরবর্তী প্রজন্মের মানুষজনকে নানাভাবে উৎসাহ দিতেন। একটি উদাহরণ দেওয়া যেতে পারে। আবদুল করিম সাহিত্য বিশারদ জানিয়েছেন, তিনি মুসলমান ও স্নেহ বলে তাঁকে পুথি দেখাতে চাননি অনেক রক্ষণশীল পরিবার। তিনি চিঠিতে শাস্ত্রী মশাইকে জানাচ্ছেন—

‘আজ আমি আপনার – এসিয়াটিক সোসাইটির আশ্রয় ভীক্ষা করিতেছি।’

পুথিগুলো ছিল গুণরাজ খানের লেখা *ধর্ম ইতিহাস* ও অজ্ঞাত লেখকের *কথমুনির পারণা*। সৌভাগ্যের বিষয় শাস্ত্রী মশাইয়ের দেওয়া অর্থের বিনিময়ে তিনি সেই পুথি সংগ্রহ করেন। বঙ্গীয় সাহিত্য পরিষৎ প্রকাশিত আবদুল করিমের সম্পাদিত *বাংলা প্রাচীন পুথির বিবরণ* দেখলেই সেই প্রমাণ পাওয়া যায়। আরও একবার, অপবাদ শুনে আসতে হয়েছিল তাঁকে নরোত্তম ঠাকুরের *রাধিকার মানভঞ্জন* কিনতে গিয়ে। সেখানেও এগিয়ে এসেছিলেন শাস্ত্রী মশাই— অর্থ সাহায্য ও পরে তাঁর (আবদুল করিম) ভূমিকা সহ প্রকাশের ব্যবস্থাও হয়েছিল।

শাস্ত্রী মহাশয়ের প্রবন্ধে *মুসলমানি বাংলা* : *শুজু উজাল বিবির কেছা* (যদিও এটি ছাপা গ্রন্থের ভিত্তিতে আলোচনা), *কবি কৃষ্ণরাম* (এতে তিনি কৃষ্ণরামের লেখা *রায়মঙ্গল* ও *কালিকামঙ্গল* দুটি পুথির বিষয় ও উদ্ধৃতি দিয়ে আলোচনা করেছেন), *রাধামাধবোদয়* (এটি রঘুনন্দন গোস্বামী’র লেখা, যদিও এটি আধুনিককালের ১৮৪৯, এতে প্রতিটি উল্লাস ধরে আলোচনা করেছেন। এতেও *শ্রীকৃষ্ণকীর্তন* কাব্যের বড়াই চরিত্রের মতো পৌর্ণমাসী চরিত্রের প্রসঙ্গ মেলে), *চণ্ডীদাস* ১ (নানা পুথির ভিত্তিতে সহজিয়া চণ্ডীদাস বিষয়ে আলোচনা), *চণ্ডীদাস* ২ (এটি *শ্রীকৃষ্ণকীর্তন* কাব্যের

লেখককে নিয়ে আলোচনা)। এছাড়া, *বিদ্যাপতি-কীর্তিলতা* প্রবন্ধে বিদ্যাপতির নানা রচনার পরিচয়, *কীর্তিলতা* পুথির বিশেষত্ব উল্লেখ করেছেন। তিনি প্রথম নগেন্দ্রনাথ গুপ্তের সমসময়ে দাঁড়িয়ে বহু বিদ্যাপতি’র ধারণাকে সামনে এনেছিলেন। এই প্রবন্ধ সুকুমার সেন’কে *বিদ্যাপতিগোষ্ঠী*-র মতো গবেষণাগ্রন্থ লিখতে উৎসাহ দিয়েছিল।

এই আলোচনার পাশেই রয়েছে শাস্ত্রী মশাইয়ের সাহিত্য পরিষদের সভাপতি অভিভাষণ। সেই বক্তৃতায় নানা সময়ে তিনি তুলে ধরেছেন তাঁর সাম্প্রতিক পুথিনির্ভর চর্চার পরিমার্জিত ও বিস্তৃত ক্ষেত্রটি। সপ্তম অধিবেশনে প্রথম নেপালের রাজদরবার থেকে আনত পুথির কথা জানিয়েছিলেন। সেই সঙ্গে পুথি সংগ্রহ ও পুথি চর্চার নানা নতুন দিক স্মরণ করিয়ে দেন। অষ্টম অধিবেশনে তিনি ইতিহাসতত্ত্ব ও সামাজিক পরিসরের প্রসঙ্গে নেপাল থেকে আনত *সুভাষিত সংগ্রহ*, *ডাকার্ণব*, *দৌহাকোষ* নিয়ে আলোচনা করেন। এতে মিশ্রভাষার প্রসঙ্গ তিনি চিহ্নিত করে দেন। এটিকে বলা যায় তাঁর চর্চা’র প্রকাশের আদিতম সূত্র।

পরের সম্মেলনে তিনি জানাচ্ছেন দীনেশচন্দ্র সেন-এর আলোচিত সাহিত্যের ইতিহাসের কালগত প্রসঙ্গে—

‘আমাদের পদ্যের ও কাব্যের ইতিহাস অতিপ্রাচীন, দীনেশবারু যতদূর দেখিতে পাইয়াছিলেন, তাহা অপেক্ষা আরও পাঁচশত বৎসরের প্রাচীন।’

এই সম্মেলনে তিনি বাংলা ভাষার বিবর্তনের দিকটিও আলোচনা করেন, চর্চা’র প্রসঙ্গ সূত্রে। এরপরের দুটি সম্মেলনের ভাষণ মূল্যবান। ১৩২২-এর ভাষণে তিনি চর্চা’র পুথির নানা প্রাথমিক পাঠের কথা জানিয়েছেন। সেই সঙ্গে বৌদ্ধ সিদ্ধাচার্যদের নানা তথ্যাবলি পরিবেশিত করেন। সেই তথ্য পরবর্তীতে তাঁর চর্চা’র গ্রন্থ-ভূমিকাতে অনেকাংশে সমৃদ্ধ রূপে তিনি ব্যবহার করেছেন। এছাড়া, ১৩২৯-এর ভাষণে তিনি চর্চা’র

সমতুল চরিত্রের সাহিত্য ধর্মমঙ্গল ইত্যাদির বিবরণ দিয়েছিলেন। তিনি সেই বিবরণের জন্যে বাংলার মানুষের নৃতত্ত্বের সন্ধানেও ব্রতী হয়েছিলেন। যার চরম উক্তি—

“বাঙ্গালা সাহিত্যে আর একটা প্রাচীন পাত উলটাইয়া দিবো।”

মনে পড়ে, চর্যা'র গ্রন্থ ভূমিকাতে তিনি জানাচ্ছেন— তাঁর আবিষ্কৃত চর্যা'র পুথির মানে নিজে বোঝার জন্যে তিনি নিজের কাছে আগলে রেখেছিলেন। সমালোচক মহলে সেই সময়ে বাড় উঠেছিল শাস্ত্রী মশাই পুথি 'যক্ষের ধন'-এর মতো করে আগলে রেখেছেন। একজন একনিষ্ঠ গবেষকের কাছে এর চেয়ে বেশি শ্রদ্ধা ও ধৈর্যের পরীক্ষা বুঝি আর কিছু হতে পারে না।

তাই, বাংলা পুথিচর্চার ধারায় শাস্ত্রী মশাইয়ের অবদানের নানা দিকের হৃদয় দেওয়ার শেষ পর্বে মনে পড়ে— তিনি বলতেন, “বাঙালী একটি আত্মবিশ্মৃত জাতি।” হয়তো এই কথা দিনে দিনে নিজের সত্যতার মাত্রা বাড়িয়ে চলেছে। তবু, রাজেন্দ্রলাল মিত্রের হাত ধরে যে তরুণের যাত্রা শুরু হয়েছিল— সেই প্রবন্ধ জ্ঞানতাপস মহামহোপাধ্যায় হরপ্রসাদ শাস্ত্রী'র মতো মানুষের সামনে আমাদের নতজানু হতেই হয়। মনে পড়ে, রবীন্দ্রনাথ ঠাকুর তাঁর কর্মনিষ্ঠার প্রতি সতর্ক থেকে যে কথাটি বলেছিলেন তাঁর স্মরণ-ভাষণে,

সেই কথা-

“যে কোনো বিষয় শাস্ত্রী মশাই হাতে নিয়েছেন তাকে সুস্পষ্ট করে দেখেছেন, ও সুস্পষ্ট করে দেখিয়েছেন।”

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- ৪) সম্পা. চৌধুরী, সেনগুপ্ত, ভট্টাচার্য (২০০০), *হরপ্রসাদ শাস্ত্রী রচনা-সংগ্রহ*, খণ্ড ২, পশ্চিমবঙ্গ রাজ্য পুস্তক পর্ষদ, কলকাতা
- ৫) সেনগুপ্ত, নিখিলেশ্বর (২০০০), *হরপ্রসাদ শাস্ত্রীর ইতিহাস-চিন্তা*, সাহিত্যশ্রী, কলকাতা
- ৬) সম্পা. চৌধুরী, সেনগুপ্ত, ভট্টাচার্য (২০০১), *হরপ্রসাদ শাস্ত্রী রচনা-সংগ্রহ*, খণ্ড ৩, পশ্চিমবঙ্গ রাজ্য পুস্তক পর্ষদ, কলকাতা
- ৭) সম্পা. চৌধুরী, সেনগুপ্ত, ভট্টাচার্য (২০১২), *হরপ্রসাদ শাস্ত্রী রচনা-সংগ্রহ*, খণ্ড ৪, পশ্চিমবঙ্গ রাজ্য পুস্তক পর্ষদ, কলকাতা
- ৮) শাস্ত্রী, হরপ্রসাদ (২০১৭), *প্রাচীন বাংলার গৌরব*, পত্রলেখা, কলকাতা
- ৯) চৌধুরী, সত্যজিৎ (২০১৮), *হরপ্রসাদ শাস্ত্রী*, সাহিত্য অকাদেমী, দিল্লি
- ১০) Saha, Dr. Alok (2019), *Haraprasad Sastri : A Study on Creative Works and Literary Criticism*, Noirita Café, Bangladesh

Celebrating World Environment Day 2024

The Asiatic Society celebrated the World Environment Day (WED) on 5th June 2024 at 2:00 p.m. at the Vidyasagar Hall of the Society. The programme was attended by the members of the Council and other members of the Society, staff members, research scholars, college students and guests. The theme of this year's WED was 'Land Restoration, Desertification and Drought Resilience'. The programme was started with an inaugural song by Sri Amit Ghosh, an official of the Society, followed by garlanding of the bust of Pandit Ishwar Chandra Vidyasagar by Professor Swapan Kumar Pramanick, President of the Society.



L to R : Dr Satyabrata Chakrabarti, Professor Swapan Kumar Pramanick, Dr. Amal Jyoti Kar, Professor Asok Kanti Sanyal and Dr. Sujit Kumar Das

Welcoming the participants, Dr. Satyabrata Chakrabarti, General Secretary of the Society briefed upon the objective behind declaring the WED and taking a cue from this year's theme, he emphasised how the present global environmental crisis is related to the theme of this year's WED. The programme was then inaugurated by planting a Neem sapling by Sriman Aayushman Bagchi (11) dressed with a specially designed cap and scarf befitting for the day's programme. He promised in his brief talk that he is very happy and will take care of this Neem plant and others also. Professor Asok Kanti Sanyal, Biological Science Secretary, The Asiatic Society gave an introductory lecture with slides on the theme of the WED - 2024. The inaugural speech was delivered by Dr. Amal Jyoti Kar, former Regional Director, Central Groundwater Board. Dr. Kar presented an elaborate lecture on the status of ground water resources in Indian States with special mention of the water crisis and ways to manage the resulting consequences. Professor Swapan Kumar Pramanick, in his address expressed concern about rapid deterioration of the environment. He also mentioned some practical incidents caused by man which were responsible for land degradation ultimately causing drought and dry arid areas. The Inaugural Session ended with a Vote of Thanks by Dr. Sujit Kumar Das, Treasurer of the Society.

The Technical Session began with a brief introduction by the Chairperson Professor Arun Kumar Bandopadhyay, Historical and Archaeological Secretary of the Society. The first speaker Professor Syamal Chakrabarti, Publication Secretary of the Society spoke on some issues related to the role of international politics vis-a-vis global environmental crisis. Professor Srimanta Gupta, Department of Environmental Science, The University of Burdwan, in his lecture presented in detail the cause and effects of land degradation citing cases in the states. The third speaker Dr. Sankar Kumar Nath, eminent Oncologist and Medical Science Secretary of the Society made a colourful presentation on 'Cancer and Environment'. The last speaker Dr. Jagatpati Sarkar, former Research Officer (Officiating) of the Society gave a brief statement on environmental problems based on his experience. The Chairman Professor Bandopadhyay in his concluding remarks first presented his observations and comments on all the four lectures and concluded with his personal opinion on the issue. Professor Asok Kanti Sanyal concluded the programme with a Vote of Thanks especially to all the speakers, participants and Dr. Shakti Mukherjee, Research Officer (Officiating) and her associates in the Academic Section of the Society for all arrangements to make the programme a success.



Prabandha Samgraha

Robin Pal

Ebong Mushayera

Price : 450/-

Pages : 336

The above-mentioned collection is written in Bengali. The effort given as to collect various essays published in various magazines, in a shape of anthology is truly praiseworthy. Although the subject to these essays are literature, they are not merely about Bengali literature, rather they further discuss about world literature as well. The number of essays are twenty. They discuss about history, literature, paintings, fictions, nineteenth century Bengali Women. Tolstoy, Bankim Chandra, Jaladhar Sen, Jean-Christophe, Frantz Fanon, Don Quixote, Dickens, Sirajuddaula, Hamlet, Arabian Nights, Gopal Haldar, Lenin's beloved Aramanda—are subjects to further discussion.

About the inter connection of history and literature, he (essayist) observed, that literature although may not be direct history, it is rather representative of it. Through the writings of the author the psychology and thinking reveal subconsciously the history of that period. In the essay 'Tolstoy and Bengali psychology' the main subject is that although unapt from artistic point of view Tolstoy is notable for his use of ordinary language, simplicity in presentation and the realistic viewpoint. Although the idealism of Gandhiji is alike to Tolstoy, it is thought to be ineffectual according to scientific study.

Rabindranath, Gandhiji and Tolstoy believed in non-violence, opposition and hard work. None of them could not accept violence in a nation's government system. Above all throughout their life time they always have stood

for humanity. While discussing about painting and literature the author (essayist) noted that paintings describe literature. Art expresses concepts and motifs of literature. Themes and form of a literature is often expressed through art. As opined by the writer (essayist) Bankim Chandra's novels are multidimensional. Apart from his contemporaries Bankimchandra elevates the styles and forms of novels in an innovative form. His novels were based on historical and social events. Domestic affairs took the shape of novels. In the essay 'War and Peace and Leo Tolstoy' the author declares that in his novel *War and Peace* Tolstoy discusses about the completeness or satisfaction in human life. His characters reach to their fullness through various triumphs and disasters. Russian novelist Mikhail Sholokhov's famous novel *And Quiet Flows the Don* describes the life story of Don Cossacks. This epic novel was the equivalent of Tolstoy's *War and Peace* for similar style pattern. The writer's (essayist) revelation about the nineteenth century women that there were many superstitions against the education of Bengali woman at that time. With the help of contemporary Brahma society and the magazines concerning women education, women education began and developed. Any reference to the contemporary muslim or lower caste women cannot be found. Jaladhar Sen in his travelogue 'Himalaya', apart from describing the adventures and scenarios, evaluates his characters throughout the work. But he portrayed no kind of romanticism in his novels.

In the essay about globalisation of Bengali novels the writer observes the transformation from self interest nature to about being expanded to its universal nature. He also observes that since last 80s-90s luxurious sensuality, sexuality and avaricious nature revealed to the world in vast expansion. The TRP rate of media and TV as well as advertisements are now-a-days estimating the value of art as if likely to the materialistic products. Despite being trapped in between the race of third world globalisation, the writer (essayist) calls out for the new light of accomplishment as well as prosperity. He also opines about the popular culture as well as Bengali novels and short stories, that now-a-days there is no place for genuinity anymore rather the chief concern lies in one's monetary well-being. The foremost endeavour is to earn wealth for self-interest rather than providing pleasure to others. For these reasons the value of literature is degenerating to the editors as well as to the book-sellers and begins a new culture in art which is merely used as a purpose of entertainment and amusement rather than aesthetic pleasure. The restless agitations of human life as well as sexuality and complexity in relationships take place in now-a-days literature. He also vastly explains about the magic realism and marvellous realism in the two novels of Akhteruzzaman Elias where magical virtues have been searched. The writer (essayist) also observes Roman Rolland's drama 'Jean Christophe' being moulded into Bengali life and culture through the transcription of Kalidas Nag who found the epic features of this drama. Rolland's chief concern was the struggles of his hero through various dangers and hostilities throughout the life. Alike to his hero, Rolland too had dreamt for change in the world and wanted to present protests on behalf of poor, oppressed people in his works. Gopal Haldar's shrill and ironic voice in his essay 'Ras' bring in an innovative style in Bengali Literature. Akshay Kumar Maitreya's book *Siraj-ud-Daulah* describes valour and heroism of the

Nawab and later his work influenced many to write plays, novels and dramas and short stories on the historical Nawab. In the play 'Hamlet', Hamlet's youthful buoyancy, intelligence, and lyrical sensuality thrills the reader. Although that period has passed long but its value is unchanged in literature. This is a myth which will last forever along with its creator. He (essayist) discusses about Inesha Armanda, beloved of the leader of Russian Revolution— Lenin and the activities of Communist Party in her lifetime. According to the (essayist) Frantz Fanon's intellectuality and theoretical concern proves him to be the pioneer of Cultural Studies. His thinking has brought uniqueness. It is noted that Arabian Night's intermixes the fairytales, romance and realities altogether and being inspired with this moulding later many short stories and novels were written. Karl Marx was enthusiastic about society and literature and *Don Quixote* used to inspire him most. The last essay of the collection was based on featuring the collection of novels and fictions of Charles Dickens. The essayist finds out that in Dicken's fictions humanity often exceeds the boundary of fancifulness and imaginativeness. So, not found to any ages or classes all kinds of person love to read him. But the essayist has also pointed out some of the shortcoming of his works such as—lacking any specific point of view, inefficient pattern or designs and lack of variety in presenting his fictional characters and also hyperbolic and exaggerating comments. Despite such shortcomings Dickens is called to be the greatest novelist of all time for his social concerns and humanity.

The essayist has talked over the undiscovered sides of art and world literature. The variety in their subjects evokes curiosity. This collection deserves scholars' attention for the indepth study.

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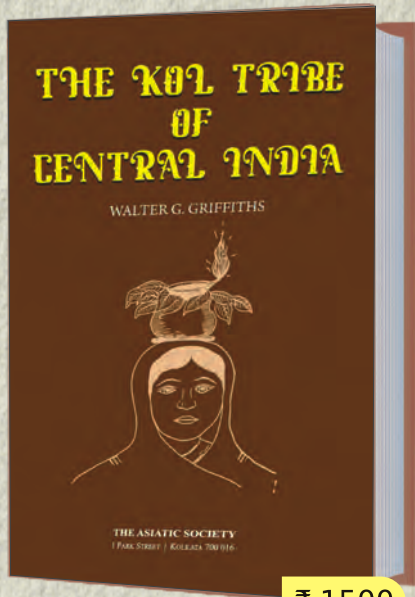
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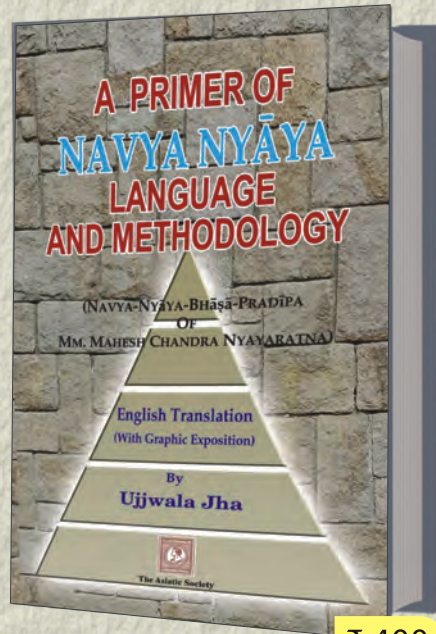
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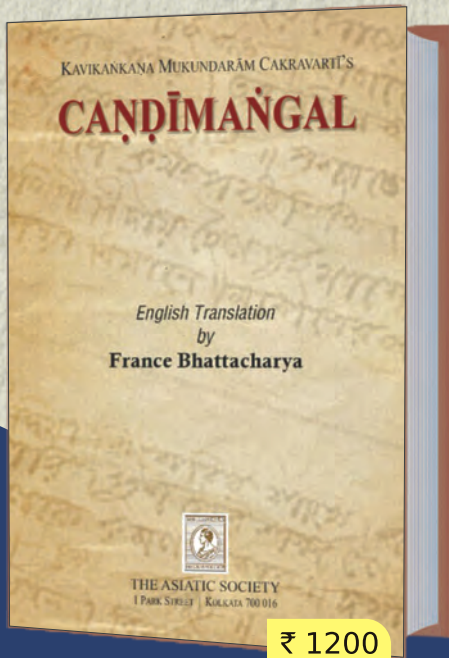
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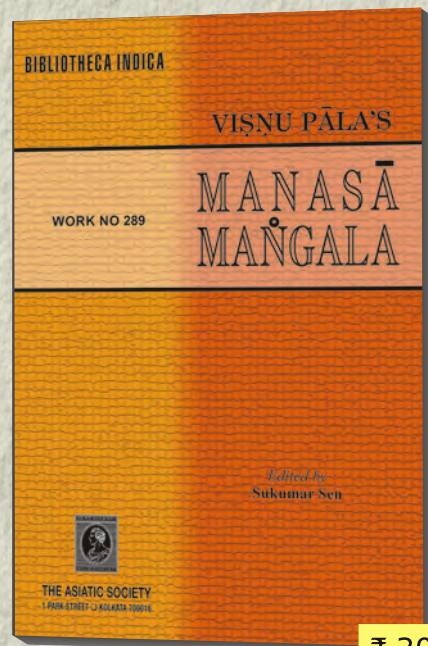
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