

Chittabrata Palit

Historiography of History of Science in India

History of Science is a modern discipline. It is prevalent in the west as a regular faculty in the Universities but not so in India. Due to constant pressure from concerned scholars it has at last found place in the University syllabi as a special paper in the History discipline. This is because it does not fetch a faculty position.

The subject was pioneered by Deviprasad Chattopadhyay, Basava Subbarayappa, Abdur Rahman and Samarendra Nath Sen. Devi Prasad Chattopadhyay published his three volume survey of history of science and technology in Ancient India and was hailed as Joseph Needham of India but it was a collective work of many scholars. Basava Subbarayappa published very important works, History of the Indian Institute of Science Bangalore and Life of M. Vishwesarayya. They are trend- setters of high order importance.

Abdur Rahman was the first exponent of science and technology in medieval India. In addition, he wrote many papers on the sources of science and technology in medieval India. As the director of NISTADS he spawned many young historians of science who have now become celebrities in their own fields.

Samarendra Nath Sen first wrote a Bengali classic, 'Vigyaner Itihas (History of Science)'.

He then compiled the centennial history of the Indian Association for the Cultivation of Science, which was published under the name, 'A Century'. He then formed a team with Subbarayappa and R.C. Mazumdar to produce the first major text of history of science

titled 'A Concise History of Science in India'. Since then many historians got interested in the subject as it was the index of material development and scientific temper in India. The veteran historian Irfan Habib senior produced a volume on 'Science and Technology in Medieval India'. A.J. Quaiser also wrote a similar volume before him of great value. Verghese wrote on 'A history of transport in medieval India'. In the medieval miscellany of the history department of Aligarh University, there were many notable papers on the history of science. I.H.Khan who wrote on optics deserves special mention. In the eighties of the last century Deepak Kumar working for his Ph.D. under Sumit Sarkar of Delhi University produced a basic text covering the whole of India titled 'Science and the Raj' (Oxford University Press, Delhi, 1995). He followed it up by three collective volumes, 'Science and Empire', 'Technology and the Raj', and 'Health and Medicine'. His associate Satpal Sangwan wrote, 'Science and Colonization of India'. S. Irfan. Habib junior with Dhruv Raina wrote 'Domesticating Science in India'. D. Raina alone wrote his Ph.D. thesis on 'Philosophy of science'. Biswamoy Pati edited two books with M.Harrison and Si Habib from Delhi. On this subject Mridula Ramanna wrote a very authoritative work on Maharashtra and Mira Kosambi wrote 'The life of *Anandibai Joshi*', a medical genius of Maharashtra.

In Calcutta, the present writer who is basically an economic historian of Bengal switched to the subject in all its branches,

science, technology, medicine and environment. His first edited work was 'Science, Technology, Medicine and Environment: A Historical Perspective' with Amit Bhattacharaya. This was followed by two other works. 'Science and Nationalism' and 'Scientific Bengal'. Around this time, he got a project from INSA on 'Science and Nationalism in Colonial Bengal 1876—1947'. He has so far produced a few volumes of monograph on Mohendra Lal Sircar, Satish Mukherjee and the Dawn society, National Council of Education and National Science, J.C. Bose and National Science, P.C. Ray and Indian Chemistry, Asutosh Mookerjee and Mathesis of Mathematics. The next work on Girish Chandra Bose and Modern Agronomy in India has just been published. At Jadavpur University, he not only taught the subject but also initiated many Ph.D. students who worked on various aspects of the subject. The writer has also contributed to the field of History of Medicine with his two latest publications 'History of Medicine in India' (Delhi, 2005) edited with Achintya Kumar Dutta and 'Suvarnatantra- A Sanskrit treatise on Alchemy in Ancient India' with Nupur Dasgupta.

Two Indian scholars, John Lourdasamy and Prateek Chakraborty have done their Ph.D. at JNU and University of Oxford on science and nationalism and published their work, which however show that Indian science was a derivative discourse from Imperial science. This has been hotly contested by the present writer and his associate. There is a strong case for parallel scientific development and India has a rich scientific heritage.

The first Ph.D. work under the writer's guidance on 'The History of Public Health was done by Sandeep Sinha and his published title

is 'Public Health Policy and the Indian Public' (Kolkata 1998). His work presages the work by Kabita Ray titled "Public Health in Bengal" and 'Press and Public Health in Bengal' (Kolkata, January 2009). Both are excellent works. Dr. Sinha has since published and edited 2 volumes 'Preach and Heal' (Kolkata, 2008). Besides numerous other papers, Kabita Ray has followed up her first work by such titles as 'Food for thought', 'Press and Public Health', 'Public Health and Calcutta Corporation' (Kolkata, September 2001) etc.

Subrata Pahari has done an excellent work on 'Travails of Traditional Medicine'. Meanwhile he has brought out a Bengali Version of his thesis '*Sanatani Chikitsa Paddhatir Swarup*'. He has recently published an important work 'Drug Imperialism (Corpus Research Institute, Kolkata, June 2011).

Ashim Mukhopadhyay, another remarkable historian of science has published 'Nationalism, Colonialism, Scientism Life and work of Jagdish Chandra Bose. His Ph.D. work written in Bengali – '*Banglar Nabajagarane Bigyan Chetana*' has won him the Rabindra Purashkar.

The work of Mousumi Bandyopadhyay on Kadambini Ganguly (Delhi 2011) has been a most welcome addition to History of Medicine on the 150th birth anniversary of the first women medical practitioner-patriot.

Sutapa Sengupta has published a field study on Indigenous Medicine and Eco Science (New Delhi, 2011) while Tinni Goswami has published 'Sanitising Society — Public Health and Sanitation in colonial Bengal' (Delhi, 2011). There are besides the unpublished thesis 'Bengal Agriculture: An ecological study' by Sujata Mukherjee, 'History of the Shibpur

Botanical Garden and Agrihorticultural Society' by Abhijit Mukhopadhyay and 'Women and Western Medicine' by Aparajita Dhar. Achintya Dutta has already published his Ph.D. work 'Economy and Ecology of a Bengal district: Burdwan' and has prepared another title on Kalazar epidemic. Amit Bhattacharya has produced two volumes on 'Swadeshi enterprise in Bengal' covering the period 1905-1947. The two authors display a lot of information on Science, technology, medicine and environment. Arabindo Samanta has published his Ph.D work on "Malaria Epidemic in Colonial Bengal". These are all publications of the 90's.

Most recently Shubhra Aich has done her Ph.D. work on 'The medical history of Small pox in Bengal' which has just been published.

Ranjan Chakrabarty whose specialisation is in environmental history has already edited two volumes on the new branch of study.

To complete the historiography of S&T in India it is necessary to write a short review of the works published by western writers on the subject. First and foremost is Daniel Headrick with his two books, 'The Tools of Empire' (Oxford University press NY, 1981) and 'Tentacles of Progress' (Oxford University press NY, 1988). These are masterly and fairly neutral works which highlight global supremacy of western science. Its tendency to colonize Asia and Africa has not been focused. Another remarkable work by Lucil Brockway titled 'Plantation imperialism' suggests the exploiting nature of plantations in the third world, but ultimately toes the same line of Headrick. Most other western writers have concentrated on the History of Medicine or Public Health in Afro Asia including India.

Philip Curtin has written two volumes on public health in British Africa titled 'British

Image of Africa: 1782-1850" (1973) and one significant volume on India namely Migrating to Death. He tries to equate the conquest of disease of India with conquest of Africa and India. A similar work has been done by David Arnold. He has edited medicine and indigenous society and authored colonizing the body. Though the titles are very catchy and expresses the inadequacy of communication between the authority and the subjects, he does not however discuss the inadequacy of amenities of public health, and excuses draconian practices by the British authority of India. This enormity has been well explained by Frantz Fanon. It was the patent fear of the authority by the subjects which eliminated the benefit of the western medicine. Another significant work, "Disease Medicine Empire", edited by Roy Mcleod, of his well-intentioned and exposes one-sided colonisation of the body in India and brutality of colonial rule. Michael Worboys, 'History of the London School of Tropical Medicine', is also tinged with the same prejudice, conquest of the tropical disease chimes in with the conquest of the colony. Mark Harrison who is one more writer on "Public Health in British India: Anglo-Indian Prevention Medicine 1895-1914" (Cambridge 1994), however softpedals on British lapses. He not only speaks of imposed justice but also perceived justice. No wonder, therefore, that Mark's books are most popular in India. The essay will not be complete if one does not mention the original work of Paul Greenough on "Small Pox and Public health" (Bulletin of Public Health, IOWA) and Ira Klein published in IESHR and finally Geraldine Forbes on 'Women and medicine in India. Last but not the least, Sanjoy Bhattacharya based in London has also written two volumes on small pox on the aspect of vaccination versus variolation.

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