Guest Editorial

Emergence of Modern Science in Colonial India

Arnab Rai Choudhuri* and Deepak Kumar**

We are happy to place before you a collection of papers presented at the conference *Emergence of Modern Science in Colonial India* held at the Indian National Science Academy (INSA), New Delhi, during 14 – 16 March, 2018. The Organizing Committee for the conference consisted of Arnab Rai Choudhuri FNA (Chair), Deepak Kumar, Suprakash C Roy and Rajinder Singh.

Modern Western science began in colonial India at the initiative of the British rulers, who needed geological, botanical, zoological and meteorological surveys of their empire, as well as an understanding of tropical diseases. From the closing years of the nineteenth century, several pioneering Indian scientists started making path-breaking contributions in basic sciences (J C Bose, P C Ray, C V Raman, M N Saha, S N Bose) some of which have remained among the most important scientific contributions made by any Indian till today. The emergence of modern science in colonial India presents one of the most extraordinary case studies of the transplantation of science from one society to another – a topic of considerable interest to historians of science.

The aim of the conference was to bring together scholars trained in history of science as well as scientists seriously interested in this subject. We are lucky that, barring a few notable exceptions, we succeeded in having most of the reputed scholars of this field at this conference. To the best of our knowledge, such a gathering of scholars working in this field had not taken place in several decades. We managed to arrange accommodation for all the outstation participants in the comfortable guest house of INSA. The size of the guest house naturally put

some constraints on the number of participants. We believe that we have not turned down the request for participation from any serious scholar who has done professional research in this field. Especially, we made sure to honour the request from every student working for doctoral thesis on history of science. We regret that more than 30 persons who wanted to attend the conference because of a general interest in the subject could not be accepted as official participant or could not be provided accommodation by us. But we made it clear that this was an open academic conference and anybody could walk in to attend any talk. The conference was attended by about 50 participants. We are happy to mention that two reports on this conference have appeared in print – by Sujata Banerjee and Sunayana Maiti (May 2018, *Monthly Bulletin, The Asiatic Society*, Vol. XLVII No. 5, pp. 13–15) and by Samir Saha (May-June 2018, *Science and Culture*, Vol. 84, No. 5-6, pp. 210–211).

The talks presented at this conference – from keynote talks by established scholars to contributed talks by young graduate students – varied widely in content and style. We had three keynote speakers: Deepak Kumar, Subrata Dasgupta, Robert Anderson. Additionally, we had invited a few distinguished scholars to cover different important aspects of our subject. It is true that we were not able to find speakers for some important topics. For example, we could not find anybody who could speak authoritatively on the pioneering works of physical chemistry done in India in the first few decades of the twentieth century. The majority of the talks – especially the talks given by young scholars – were selected by the Organizing Committee from the

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abstracts submitted. For preparing papers based on the talks, we had given an upper limit of 4000 words to keynote and invited speakers, whereas regular speakers were given an upper limit of 3000 words. We, however, have not been very strict in enforcing the word limit and have allowed authors of a few valuable papers to go a little bit beyond the word limit. All the papers were rigorously refereed. One of us (ARC) handled the papers dealing with physical, chemical and technological topics, whereas the other (DK) handled the papers dealing with biological, medical and agricultural topics as well as papers of more general nature. A few papers underwent considerable revision in response to referees' suggestions. We are very grateful to the authors for submitting the final versions of their papers within a strict time schedule.

This volume should give you a good idea of where the scholarship in this field stands now and we hope that this will be regarded as a definitive volume on this subject for years to come. We have encouraged all the authors to give extensive references to earlier scholarly works on the subjects of their discussion. Such a multi-author volume naturally cannot be regarded as a complete history of science in colonial India. The authors have written on the topics on which they could write authoritatively. In most cases, the author is probably the most qualified person to write authoritatively on the subject of his/her paper. As we already pointed out, some important topics are missing from this volume. In many cases, this should be taken as an indication that not much scholarly work has been done on that topic and that it is a fertile topic for future research. In spite of this limitation, we believe that readers will appreciate the diversity of topics which have been included within the two covers of this volume.

Apart from the regular talks, we had three open discussions during the conference at the end of each of the three days:

1. What can we do to attract young people to history of science and to train them?
2. What can we do to preserve archival materials and make them accessible to scholars?

3. What should be our action plan after this conference?

While these open discussions were very animated and stimulating, we regret that we failed to come up with any concrete steps to address these issues. In that sense, our conference had limited success. We are glad that we could bring together such a gathering of scholars and we feel proud about this Proceedings volume (since most of the papers are written by others and not by us, we believe that we can evaluate this volume ourselves as objective judges). But we have not been able to make any serious progress on the big issues which we debated during the open discussion sessions. We hope that scholars younger than us should take the field forward from where we leave it.

We now come to the pleasant task of acknowledgements. We have received continuous help from our two other colleagues in the Organizing Committee – Suprakash Roy and Rajinder Singh. Additionally, we frequently consulted D Balasubramanian, Chair, Research Council for History of Science INSA, and always benefited from his advice. All the arrangements at the conference venue were meticulously done by Madhvendra Narayan. He and A K Bag, Editor of *IJHS*, have taken the initiative and the responsibility of publishing the Proceedings of our conference as a thematic issue of *IJHS*. Ajay Sood, President of INSA, has been strongly supportive throughout. The financial support for the conference came from INSA and from the Science and Engineering Research Board (SERB) through a JC Bose National Fellowship awarded to one of us (ARC). We may mention that we had no source for supporting international travel. So, special thanks are due to those colleagues who came from abroad without any travel support from our side – Robert Anderson, Subrata Dasgupta, Abha Sur.

Finally, we express our indebtedness to those predecessors on whose shoulders we stand. This thematic issue of *IJHS* is gratefully dedicated to B V Subbarayappa and G Venkataraman, as well as to the memory of Santimay Chatterjee and S N Sen.