
CURRENT SCIENCE—50 YEARS AGO

The National Institute of Sciences of India.*

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Your Editor has asked me to write an article on the National Institute of Sciences of India. In accepting this invitation it has seemed to me that it would be useful if I showed the position of this organisation with reference to other scientific organisations in India, as it is only in this way that one can see clearly what place the National Institute should occupy in the edifice of Science in India, and, therefore, what its functions should be.

Briefly, the position is that provision for modern scientific work in India commences in the days of the East India Company with the recruitment of Medical Officers and Mint Assayers, who, towards the end of the 18th century, with interested civil and military officers, began in their spare time the first modern scientific investigations. At this time the general need for an organised association for the encouragement of the study of all branches of learning became felt, and on the 15th of January 1784, at a meeting presided over by Sir William Jones, the Asiatic Society was founded, later to be termed the Asiatic Society of Bengal. The objects of this Society were both scientific and literary, and in the comprehensive words of Sir William Jones as paraphrased "The bounds of its investigations will be the geographical limits of Asia, and within these limits its enquiries will be extended to whatever is performed by man or produced by nature".

The first organised provision for scientific research in India was, therefore, actually non-official; but in 1788, the Royal Botanic Gardens, Sibpur, were founded; and in 1800 the first of the scientific services, namely the Trigonometrical Survey of the Peninsula, later to become the Great Trigonometrical Survey and now merged in the Survey of India, was established by the East India Company with Colonel Lambton as the first geodesist. The Geological Survey of India was founded in 1851, and in 1866 the first Museum Act was passed and the Indian Museum was established, the zoological, geological and archaeological collections of the Asiatic Society being transferred thereto; and with the foundation of this Museum we have the first

direct official provision for zoology. Provision for meteorology in the form of various observatories existed in various parts of India from the end of the 18th century and in the early 19th century, and in 1875 the Government of India appointed a Meteorological Reporter for the whole of India, and the present Meteorological Department was founded.

The 19th century was thus a period during which the various scientific services financed by the Central Government were founded. All these services eventually inaugurated their own publications, but throughout this period the Asiatic Society of Bengal was the place where men of all branches of knowledge met and discussed their problems, and the publications of this Society contain not only literary communications but also many papers of importance to Science. During the 19th century, branches of the Royal Asiatic Society of Great Britain and Ireland were established in Bombay and Madras, and that very successful Society, the Bombay Natural History Society, was also founded. There were also other less important societies, often evanescent; but on the whole it was a century characterised by the existence of scientific services and of one academy serving the whole of India, namely the Asiatic Society of Bengal. None of the specialist scientific societies had been founded, and the major portion of the researches that were not published in departmental publications found their way to the Asiatic Society of Bengal.

With the 20th century we have opened another volume in the scientific life of India, and the first third of the century has been characterised by the formation of a large number of specialist societies and research institutes. Amongst the societies mention may be made of the Mining and Geological Institute of India (1906), the Indian Mathematical Society (1907), the Institution of Engineers, India (1921), the Indian Botanical Society (1921), the Indian Chemical Society (1924), the Institution of Chemists, India (1927), the Society of Biological Chemists (1931), and finally of the Indian Physical Society, the Indian Society of Soil Science and the Indian Physiological Society, all founded last year.

Amongst the research institutes supported from central revenues one may mention the Imperial

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Institute of Veterinary Research now at Muktesar but originally founded at Poona under another name (1890); the Imperial Agricultural Research Institute, Pusa (1903); the Central Research Institute, Kasauli (1906); the Imperial Forest Research Institute, Dehra Dun (1906); and the All-India Institute of Public Health and Hygiene, Calcutta (1934). As examples of research institutions administered provincially mention may be made of the School of Tropical Medicine, Calcutta, and the Haffkine Institute, Bombay. And as a fine example of another type of research institute, namely one supported mainly by private bequests supplemented by Government grants, we have the Indian Institute of Science, Bangalore (1911).

All these societies and institutes, except the Indian Institute of Science, must be regarded as specialised organisations.

But starting in 1857, with the foundation of the Universities of Bombay, Calcutta, and Madras, there has been formed a series of university educational institutions with chairs and laboratories for various science subjects, playing an important part in the provision of facilities for scientific research. The scientific societies all maintain their own publications, but happily the tendency is for our University friends to offer the results of their researches to existing scientific societies rather than for Universities to start their own journals and so increase the multitude of publications.

As I have pointed out in the Addresses referred to above, Academies must really be regarded as philosophers' gardens, where men of various branches of knowledge can walk and talk, compare their views, and discuss their problems; and it is in providing a place where men of various branches of knowledge can

meet and talk that Academies are to be distinguished sharply from specialist societies.

Whilst it has become clear that no one Academy can serve the practical needs (apart from those served through the post) of the whole of India, it is also clear that we require a co-ordinating body to facilitate co-operation in the first instance between the various Academies, but ultimately between all scientific organisations and scientists, and it is this underlying need that has really led ultimately to the formation of the National Institute of Sciences of India.

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It seems unnecessary to discuss in detail the various objects of the Institute, as each of them speaks for itself. But from the statement it will be seen that the main objects of the National Institute are related to the co-ordination and organisation of science in India, and this is the reason why the Institute has a limited Fellowship composed of Fellows belonging to all branches of science.

In the first year or two of its life the Institute will naturally proceed cautiously, but gradually, as opportunity occurs and funds permit, scientists in India must expect the National Institute to take up all the objects enumerated above, and as this is done we shall call upon the Academies and the specialist societies for their co-operation.

Although this is not the main object yet it is inevitable that when the Fellows meet they should take the opportunity to bring researches of general interest before the whole body of Fellows, and to this extent the National Institute must serve as a forum where important discoveries are announced and discussed.