

BOOK REVIEW

THE STORY OF GSI: X851-2001 by N.P.Chaudhuri, published by the Director General, Geological Survey of India, 27, Jawaharlal Nehru Road, Kolkata - 700 016, 2001, 187p.

The Geological Survey of India rightly decided to bring out a commemorative volume to mark 150 years of its existence, highlighting its growth and achievements, its heritage and traditions. It is appropriately titled as the Story of GSI.

The exact date of establishment of the GSI is not recorded in the archives preserved. The date of arrival of Thomas Oldham in India on the 4th March 1851 is still the accepted date of the birth of the organisation, though it was conceived as "Geological Survey of India" by John McClelland who initiated the appointment of David Hiram Williams as the Geological Surveyor on February 5, 1846 by the East India Company. The initiative to have a geological survey stemmed from the need to procure coal and to look for minerals of iron, lead and copper in the vicinity of coal mines. The death of Williams brought McClelland as "Officiating Surveyor". However, the appointment of Thomas Oldham as the new Geological Surveyor in March 1851 marked the beginning of the functioning of the GSI.

The foundation for geological studies was laid by some of the early pioneers like T.J. Newbold, Laidlow, Henry Westley Voysey, F.Dangerfield, J.D.Herbert who by their spirit of discovery and innate interest initiated geological research in India.

This story of early years has been told and retold during the celebrations of the centenary and 125 years of the GSI. It is still fascinating to read the sequence of events during the formative years, later developments, the slow transition from British to Indian Officers and the *conditions of field work of that period*. These are well recorded by the author in the chapters on Conspectus and Prologue.

The first fifty years of the history of the GSI marks the beginning of systematic geological mapping, the stratigraphic studies and economic investigation. The most dominating factor was the leadership provided by Thomas Oldham who recruited an excellent team of officers of great calibre who laid the foundation of Indian Stratigraphy both in the Himalaya and in the Peninsula. The interest of some of these officers transgressed the geology and crossed into archaeology where they made a mark and the work of Bruce Foote stands out as the most outstanding.

This period also marks the establishment of a Museum of Geology, preparation of the Manual of the Geology of India, Geological Map of India, the various publication series. This period also marks the designation of Gondwana series, the study of earthquake waves, initiation of engineering geology investigations, mineral investigations which included coal, petroleum and manganese.

The achievements of the first fifty years have been cogently recorded by the author who has laboured to put all the facts in a readable form with sketches, diagrams and photographs gleaned from the past.

The second fifty years marks the blossoming of the early efforts. The GSI continued to be led by stalwarts with vision, scientific temper and ability. They all made enormous contribution and thereby enriched our knowledge of Indian Geology. The author refers to these works of great importance. This period, though marked by two world wars, never slowed in its scientific activity. The author records many anecdotes of the period which give us an insight into the human aspect of many of these stalwarts. Some of the great names of the period includes Thomas Holland, H.H.Hayden, E.H.Pascoe, Gee, Cyril Fox, L.L.Fermor, Middlemiss, A.M.Heron, D.N.Wadia, W.D.West, J.B.Auden, M.S.Krishnan, Crookshank, P.K.Ghosh, P.N.Bose. This period established the supremacy of the GSI in the field of earth science particularly with regard to stratigraphy and tectonics of India. Mention may be made of the contribution to the Tethys sequence of Spiti, Stratigraphy and tectonics of Krol belt, Garhwal and Kashmir, geology of Rajasthan. During this period, the *development of mineral industry took deep roots with discoveries of iron ore, manganese, gold, copper, lead and zinc, mica, uranium, gypsum, coal limestone etc.* Even oil exploration made a beginning. During this period geophysics was introduced in the GSI and M.B. Ramachandra Rao along with two Italian scientists laid the foundation for this division. This period also marks the diversification of activities of the GSI into investigations for engineering projects and groundwater.

The narration of the history of the third fifty years, which is of great contemporary interest is lacklustre in nature and reminds one of reading routine GSI annual report. It lacks the human aspect which is shown in

profusion in the narration on previous hundred years. Many achievements like ascent of Mount Everest by C.P.Vohra, the 1962 snowstorm in Lahaul-Spiti in which a GSI party was caught and whose heroic escape from nature's trap made headlines in national media do not find a mention. The death of three young geologists in an Antarctic Camp is only cursorily mentioned in the chapter of conceptus. The sad demise of two young geologists in field in Maharashtra in tragic circumstance could have been recorded. The comradeship among earth scientists is unique for GSI.

During the last fifty years of GSI there were spectacular achievements in the field of Himalayan Geology, Peninsular Geology, Engineering Geology and Mineral Exploration spearheaded by dedicated geologists with great motivation. One should not feel shy of referring to it. The working conditions in the field particularly in the Himalaya remained the same as during second fifty years but the achievement in geology is noteworthy. During the last fifty years the entire Indian Himalaya has been covered by mapping. The mapping effort has been stupendous. In the field of Peninsular Geology there has been significant achievement in our understanding of Precambrian Stratigraphy and Tectonics. In Engineering Geology, GSI has made great strides. If, today, civil engineers respect the opinion of geologists, it is mainly due to the work of dedicated pioneers like V.S. Krishnaswamy who provided true leadership, gave

a new orientation and also introduced several project oriented investigations in other field with great success. There are notable achievement in economic geology investigations of Mangampet baryte, the Mussoori phosphorite, the Malanjkhanda copper and the East Coast bauxite. As in the past, even during the last fifty years, the GSI has shone mostly on the work of dedicated individuals. They deserved a mention. There should have been a short chapter on the strengths and deficiencies at the close of 150 years.

The story of GSI ends rather abruptly. It appears the author was in a hurry to finish. It is understandable when there was a target for completion. However, these shortcomings should not distract the merit of the book in writing of which the author has laboured hard. He deserves our deep appreciation. The writing about sister organizations and societies is a commendable idea and it brings out the bond the GSI has developed with these organisations. The GSI has a glorious past. The performance during fourth fifty years will be keenly watched and it is for the present and future generation of earth scientists to perpetuate the past glory. For any one eager to know about the history and development of geology in India this book must find a place in their shelf.

Bangalore

S.V. SRIKANTJA

Email: gsocind@bgl.vsnl.net.in

Geological Society of India

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