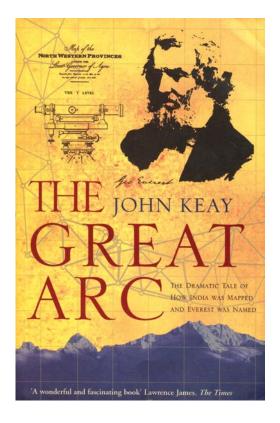
REVIEW BY Sriganesh Rajendran GREATAR C



THE GREAT ARC: THE DRAMATIC TALE OF HOW INDIA WAS MAPPED AND EVEREST WAS NAMED

AUTHOR John Keay
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n a hot-dry day, a group of students trudged through dusty fields, trying to locate the elusive "Dharamkanta" - marked on a Survey of India map. While the destination had apparently been demolished a few years ago, every other piece of information on that map was exactly where the map said it would be, including a wayside shrine and a culvert. It dawned on us then, that some intrepid being had meticulously measured every square mile of that region - and by extension - India, creating a map and maps of mind-boggling accuracy.

Today, we take any Survey of India map as a reliable baseline in its records of natural and manmade features. But questions like

why was this kind of mapping done, and more importantly, how and by whom, are not easily answered in specific terms. John Keay's engaging re-telling of the story behind the mapping of the Indian sub-continent attempts to do this. Having previously written much about India's vast history, in 'The Great Arc' he sheds light on a now-obscured episode of outstanding significance which enabled the British to define "India" in physical terms.

The story begins in 1800 with a backdrop of smaller surveys in France Britain and Colonial India. In its nearly fifty-year effort, including forty years of high-risk travel, the 1600 miles long survey is said to have cost more lives than most wars of its age and involved computing equations which were "more complex than any in the pre-computer age".

The main characters include John Lambton – the initiator of the Survey and his successor George Everest. Their rigorous endeavours to correctly orientate the position and inter-distance of places in relation to the Earth's curvature forms the storyline. Their tenacity in the face of obstacles – natural and human – is a consistent theme, while their personality traits comprise one of the many antitheses in the book.

Lambton's passion can be glimpsed through his efforts at "...shaving tolerances to an infinitesimal minimum ... amounting to just seven thousandths of an inch..." (31). His 57-day long measurement of the base line at Madras would eventually become the sheet-anchor of the whole programme. His astronomic calculations also were in the same league. Under Everest, procedures transcended to orchestration, where the crews were expected to heed his every command without deviation. What was finally realized was "...not

The Great Arc and associated series

500 km

Everest's Bombay Longitudinal 1822-3

the ambitious map-making programme of the Survey of India nor even the rigorous methods of its Great Trigonometric Survey, but the latter's supreme expression, the Great Arc of the Meridian" (14).

In its wake, the Survey advertised the realities of British rule and the subsequent alienation of the locals as verily "...the bars and chains of invisible triangulation looked and sounded a lot like political strangulation...". In this sense the survey achieved more than its supreme expression, as succinctly paraphrased by Keay (82-84).

Indians' views on the enterprise are at best sketchy (148) but this is not necessarily a shortcoming if one chooses to see this story the way the protagonists saw it. On the other hand, this book is not a glorification of a Colonial enterprise and acknowledges the important role played by Radhanath Sikdar. Yet, some end notes on Indian measurement systems encountered by Lambton and Everest could have provided a glimpse to the modern reader about the difference in the way land was being comprehended then. At the least, some sources of information about this could have been mentioned.

The eleven chapters of this easily-readable book afford a look at the politics of the time and the social and scientific perception of this undertaking. Carefully selected archival maps, paintings and photographs - all monochrome - form a complementary visual sub-text, despite limitation of print size. Highlighting dualisms and going back and forth between past and present at just about the right places this book is almost cinematic. The annotations accompanying the sources mentioned provide some prospects for delving deeper into the story.

THE GREAT ARC AND ASSOCIATED SERIES

On the whole, The Great Arc is a fairly balanced mix of science, mathematics and cartography written for a non-technical reader within a limited historical framework. This implies a bias about who might read it though scientific and mathematical references are short and can be skipped. Otherwise, anybody who is even remotely curious about the original pronunciation of the name "Everest", or the Tibetan and Nepali names for the highest peak in the world should read this book. It is a reminder about discovering the inter-connectedness in the seemingly disparate - a relevant question in today's world of specificity and instantaneous information.

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