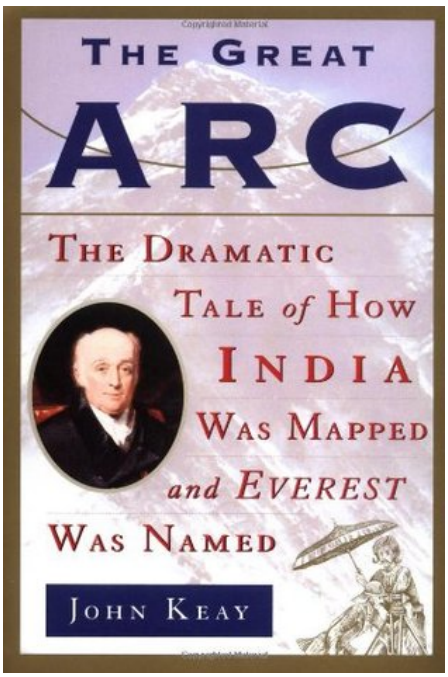

The Great Arc: The Dramatic Tale of How India Was Mapped and Everest Was Named

John Keay

The Great Arc: The Dramatic Tale of How India Was Mapped and Everest Was Named

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The Great Arc: The Dramatic Tale of How India Was Mapped and Everest Was Named John Keay The Great Indian Arc of the Meridian, begun in 1800, was the longest maesurement of the earth's surface ever to have been attempted. Its 1,600 miles of inch-perfect survey took nearly fifty years. Hailed as "one of the most stupendous works in the history of science," it was also one of the most perilous. Snowy mountains and tropical jungles, floods and fevers, tigers and scorpions all took their toll on the band of surveyors as they crossed the Indian subcontinent carrying instruments weighing half a ton.Willian Lambton, an endearing genius, had conceived the idea; George Everest, an impossible martinet, completed it. This saga of astounding adventure and gigantic personalities not only resulted in the first accurate measurement of the highest peak in the world but defined India as we know it and significant advanced our scientific understanding of the planet.

The Great Arc: The Dramatic Tale of How India Was Mapped and Everest Was Named Details

Date	:	Published August 1st 2001 by Harper Perennial (first published 2000)
ISBN	:	9780060932954
Author	:	John Keay
Format	:	Paperback 224 pages
Genre	:	History, Nonfiction, Science, Cultural, India, Geography, Travel, Biography

From Reader Review The Great Arc: The Dramatic Tale of How India Was Mapped and Everest Was Named for online ebook

Manish says

The story of how India was mapped, through a series of triangles, by using the basic fundamentals of trigonometry, under the leadership of William Lambton and his successor after whom the tallest peak in the world was named - George Everest. Somehow, my respect for topo sheets just went up a few notches after reading this book!

Maitrey says

The Great Arc is a wonderful little chronicle of the "Great Trigonometrical Survey" carried out in India roughly between 1800-1860 CE. Various teams surveyed India right from its southern tip, to the Himalayas.

What brings the book alive is John Keay's writing. Packed with meticulously researched details both in India and in England, Keay enriches it further with some things gained from his own recent traversing of the Great Arc.

The book is packed with memorable characters such as William Lambton, the meticulous and slightly eccentric father of the survey who also intended the Arc as a giant experiment to measure the geodesy of the globe (the "curve"), apart from mundane activities such as mapping India. Keay also recounts how he re-discovered Lambton's forgotten grave in the heart of India.

George Everest then takes over the narrative, and succeeds in connecting the Arc from Central India to the Himalayan foothills despite severe illnesses, marauding tigers and unreliable equipment. The final few chapters deal with the troublesome mapping of the Himalayas and the search for the highest mountain in the world, which was named in honour of the now retired Surveyor-General of India, Everest (which Keay says should actually be pronounced as EVE-rest, rhyming with CLEAVE-rest. Apparently, Everest himself was unhappy with the mispronounciations which dogged his life).

Overall, the book is now all the more poignant and important because the works of people such as Lambton and Everest (along with their life's work which was the Great Arc) are largely forgotten, both in India and England, which is a crying shame. During their time, they were richly feted as some of most pre-eminent men of science, and the Arc was hailed as the most scientifically exact and reliable operation undertaken anywhere in the world.

Overall the book was extremely enjoyable, mainly thanks to Keay's brilliant writing, particularly his pleasure in depicting eccentricity.

Robert says

This focused on a very interesting period of history I'd never learned much about. The author does a good job of telling the history, acknowledging the ills of British colonial rule of India, but not diminishing the

audacity of what Lambton and Everest set out to do. I've recently been fascinated by the logistics and immense difficulty involved with surveying huge areas like India, and Keay doesn't skimp on the minutiae of how surveying was done in the 19th century.

Lance Greenfield says

As a surveyor, I was fascinated by the exploits of my forebears. It is an amazing account, and I saw many reflections of some of my own experiences. Of course, the equipment that I had access to was much more technologically based, but the principles were much the same. Also, there were a surprising number of things that have not changed over the decades.

I was in awe of these great men, and the lengths that they went to so that they could provide the baseline from which they could measure, and map, the rest of the sub-continent.

The narrative is a bit slow-going and tedious in places. Even so, I was gripped by the story, and so grateful to the author for bringing it to life for me.

This book won't interest everyone, but it is a bit of history and will interest anyone who wants to learn more about life in the 19th century, even if you don't have too much interest in the technical side of surveying.

RustyJ says

The Great Arc is an account of the Trigonometric Survey of India, a mammoth exercise to survey and map the Indian sub-continent from Kanyakumari (then Cape Comorin) to Kashmir and from the Indus delta to Burma, an exercise that commenced in 1802 and was completed only in 1870.
The book traces the history of the Trigonometric Survey from its conceptualisation and commencement in 1802 by its first superintendent William Lambton until the mid 1830's under his successor George Everest. In this time the primary arc tracing the 78 E longitude that passes through Delhi was surveyed in a series of interconnected triangles that stretched from Kanya Kumari in the south to Dehradun in the north.
The primary arc was to be the spine of the web of triangles that measured and surveyed the length and breadth of the country - secondary arcs branching off perpendicularly from the primary arc and these secondary arcs further lending to further arcs that then ran parallel to the primary arc, crisscrossing the length and breadth of the country.
Nothing as ambitious had been attempted before, for a survey of this magnitude in effect measured the very curvature of the earth. Mapping and measuring the heights of some of the highest peaks of the Himalayas: Nanda Devi, Kanchenjunga, Nanga Parbat, Mount Everest and others were a direct consequence of this survey.
In addition to the cartographical, geographical and wider scientific implications of the survey, the exercise had a significant political impact too. For this was a way for the East India Company that by now had clear territorial ambitions to exert its influence over the land it wished to govern. A survey of this magnitude was essential to map territories, delineate regions and divisions, build the web of infrastructure links so essential to effecting control over such a large region and above all to assert territorial superiority. Needless to add, it was a necessary aid to revenue collection, one of the primary reasons why India was attractive to the colonial ambitions of the British.
Large swathes of forest were cleared, hills flattened, monuments temples and mosques vandalized, villages

razed, buildings and mansions in towns cut through... all in the name of obtaining clear lines of sight to measure the trigonometrical angles. Suffice to say the local populace and their princes were not amused. Nor did the arrogant and high handed approach of the superintendents of the Survey, George Everest included, help. Local resources were diverted, men and beasts put in the employ of the Survey and the harsh conditions of the dense jungles and working in the heat and rain claimed fatalities larger in number than wars. It would not be an exaggeration to say that this was one of the reasons contributing to the First War of Independence in 1857.
The subject matter of the book makes for interesting reading. Without complicating it with technical details, the author explains the basics of geographical survey and measurement, with its complexities and problems, in a simple enough manner. There would have been difficulties in researching a topic two centuries old, inspite of the copious amount of correspondence and publications that the mammoth effort must have generated. The book restricts itself to the first thirty or so years of the survey that took nearly seventy and traces the events during the course of its first two superintendents: William Lambton, an unassuming but much loved person with a zeal for perfection and his successor George Everest, a man with an equal zeal for perfection but loathed by his sub-ordinates for his abrasive and abusive ways. There is some reference to the administrative, logistical and practical difficulties that these men had to face, but the book is neither a humanistic account that presents the dynamics of the what-how-why nor a research treatise that delves into the technical details. It is an attempt at turning a mega event into a novel but ends up without strong characterisation with the exception of Lambton who is presented as a lovable old man and Everest as a loathable person. There is little detail on the social, political and cultural impact the survey had on the India of then. Even events that would have then been (and would now be too) sacrilegious, such as drilling a hole in the dome of a mosque, removing a pillar holding the cupola atop Akbar's tomb at Fatehpur Sikhri, mounting equipment tons heavy on the spires of temples are glossed over. Needless to add, such acts would have generated tremendous animosity and ill-will among the local population, with implications for the survey and the fledgling administration of the East India Company. An examination of these aspects would have made the book a far more absorbing read, for by the last third of the book, it gets repetitive: Everest's outbursts, the same challenges and problems in finding suitable spots for observation points etc.,
Nevertheless, the book is an interesting read on a subject matter that literally defined the world we live in. Full marks to the author for that.

Stephan Renkens says

"The Great Arc" made me remember some episodes as a student in geography, tampering with theodolites and levels. Measuring the earth and the land is quite hard a task and it's good to have a book telling an important story about it. The book also explains why a government or an occupying force wants to measure the lands it rules: it's all about imposing power, acquiring maps as military tools and giving the ability to tax the population.

Most of all the book lacks drawings, that might explain better to the lay reader geodetic matters. Many a time i was lost in the technical aspects of the story, having no idea of the problem that was faced by the "heroes" in the book, despite a bit of knowledge of geodesy. Also I'm not sure whether everybody understands why you first have to triangulate an area before doing detailed mapping.

The book tells about hardship as well, claiming that the human losses suffered during the enterprise were bigger than contemporary wars. Some statistics might be helpful next to the concrete stories told in the book.

A fait-divers I learned from the book: the person after which the highest mountain on earth is named (George

Everest) never saw the mountain, and never came in its proximity. Furthermore "Everest" the person and "Everest" the mountain are pronounced differently.

Zuberino says

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Robert Swanson says

Could have a clearer line of narrative relative to time and dates.

Enjoyable review of the effort for the Great Arc.

Nine years for the effort to Ecuador to determine the length of a degree of longitude; 1802-1871 to work the Great Arc; a year passage from India to England... timescales on monumental efforts much greater and requiring long-term commitments realizable today. A different world of expectations and turn-around.

Kadri says

Just fabulous as far as a book on triangulation can be. It was interesting for me to read about the Great Indian Arc of Meridian and compare it in my mind to the Struve-Tenner Geodetic Arc (the Great Russian Arc) measured at the same time in Eastern Europe. The people who were involved in the triangulation were quite something, and obviously if you'd pair geodesy with tigers, malaria, and the highest mountains in the world, you're bound to get something interesting.

Maurya says

A good book that loses steam in its second half. It starts off strong - describing the men, instruments of the great trigonometric survey and the perils facing them. Then it just settles into a rhythm of Everest bashing, malaria, scouting for high ground, Everest bashing, malaria...
Notably the book has exactly three lines on Radhanath Sikdar. The author believes that Sikdar's contribution to the survey has been overstated but how about introducing him first and then presenting some arguments about why he doesn't think he was relevant? And even if he was just the 'computer' for the survey who calculated the height of Mt. Everest doesn't he deserve a bit of background?

Sneha Divakaran says

Well researched, superbly written.

The mapping of India is brought out to be what it was - brutal to the people in the line of sight, grand for the British, magnificent, terrible, all at the same time. Despite it being a work of history, the "character development" of the protagonists, Lambton, Everest (pronounced Eve-Rest), and India (her anger in the form of burned down survey towers, disease, and her submission in terms of the number of people she lost to this endeavor), is done very well.

Would have appreciated more maps though. Not all of us are expert surveyors or geographers.

A good read! And timely, too, for me.

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yórgos says

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Madhan Rajasekkharan says

The story of a great project taken 200 years ago to map India. Done over 60 years, starts from the Marina Beach and ends up all the way till the discovery of Mount Everest as the biggest mountain in the world. A brief view into British passions and priorities and excellent chapters on the race to find the tallest mountain in the Himalayas. Fascinating view into how cartography and surveying started and has evolved over last 2 centuries.

Slags off a bit in the second half , good book nonetheless.

Sandhya Sekar says

Excellent read. Lots of detail and fact, but presented in a fascinating manner. Beautiful language, and characters spring to life by Keay's insightful touches and flourishes.

Abhaga says

Reminded me of my Nana ji who was a engineer with the irrigation dept. He used to have all these geometrical instruments, his heavy binoculars, hat, Theodolite. Reading the book brought back many vague memories from my childhood.

The book is interesting as John Key always is. Before reading the book I only vaguely knew that there had once been a large scale trigonometrical survey of India. This book makes you realize the immense scope and the audacity of those who carried it out. It is also fun to know the role many of the familiar places played in this exercise.

Now I want to go and visit some of these places like Hathipaon. A Great Trigonometrical Tour of India anyone? :-)
