



THE SAGA OF  
**INDIAN  
CANNONS**

R. Balasubramaniam

**T**he invention of cannons and their use in warfare added a different dimension to battles. The fates of nations were decided by the use of cannons. The science of gunpowder and the technology of cannons, from their introduction in the Indian subcontinent in the middle of the fifteenth century up to the pre-modern period, have been illustrated using Mughal miniature paintings and analysis of extant cannon pieces. The massive and wonderful forge welded iron cannons and cast bronze cannons of medieval India have been presented, some for the first time, in this book. The mighty cannons that established Mughal, Maratha, Sikh and Deccan powers have been described. Indian innovations in cannon technology like *shaturnal* (cannons fired from back of camels), composite cannons (of inner wrought iron bore and outer bronze casting) and *bans* (battlefield rockets) offer sufficient proof of Indian ingenuity in science and technology.

The book draws inspiration and major material from the original publications on the subject by the author. Written simply and profusely illustrated with line drawings and photographs, the book embodies the latest researches on the subject. It will fascinate both serious scholars and lay readers, and provide them rare glimpses into India's rich military and metallurgical heritage.

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Professor R. Balasubramaniam has vast experience in teaching corrosion and Indian archaeometallurgy. After graduating in metallurgical engineering from the Banaras Hindu University in 1984 with a gold medal, he completed his PhD in materials engineering from Rensselaer Polytechnic Institute, USA in 1990. He has, since then, been teaching and conducting research at the Indian Institute of Technology, Kanpur in the Department of Materials and Metallurgical Engineering. He is the recipient of several prestigious awards like the BHU University Gold Medal (1984), BHU Gandhi Gold Medal (1984), Indian Institute of Metals Vishwa Bharathi Award (1984), Indian National Science Academy Young Scientist Award (1993), Humboldt Fellowship from the German Government (1996), Materials Research Society of India Medal (1999) and Metallurgist of the Year (1999) awarded by the Government of India. The widely published author is on the editorial board of several international journals. His significant research work on the famous 1600-year old Gupta period corrosion-resistant Iron Pillar, located in the Qutub, has received national and international acclaim. He is the author of four other books, *Delhi Iron Pillar: New Insights*, *The World Heritage Complex of the Qutub*, *The Story of the Delhi Iron Pillar* and *Marvels of Indian Iron Through the Ages*.

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