

Archaeological Sciences Centre, IIT Gandhinagar

Tracing the Growth of Iron Technology in Ancient India

Lecture by Prof. Vibha Tripathi, August 6, 2013

India was renowned in the ancient world for the excellence of the iron and steel produced by its artisans. Most famous was the crucible steel or 'wootz' steel, known to the world as Damascus steel as it reached the world market through Arab maritime traders, earning them huge profits. Structures like the Delhi Iron Pillar or the Konark beams which have withstood the ravages of time without rusting are witnesses to the unparalleled mastery of Indian metallurgists. Shiploads of iron and steel were exported to the Middle East and Europe from south Indian ports. The British imported Indian steel for use in bridges across the Menai Strait and even in the London Bridge. India held sway in the field of iron production till about beginning of the 20th century.

The present talk attempts to draw the attention of modern metallurgists to the enigma of the watering pattern on wootz steel swords and the corrosion-resistant property of the Delhi Iron Pillar, with a view to kindling interest in our heritage in metallurgy and exploring whether the technology has a future.

Prof. Vibha Tripathi has taught archaeology and culture for more than 35 years in the Department of Ancient Indian History, Culture and Archaeology, Banaras Hindu University (Varanasi). She has conducted extensive excavations and explorations using scientific tools like Remote Sensing data. A noted archaeometallurgist, her special area of interest has been history of technology and iron technology.

Prof. Vibha Tripathi has also worked with potters and metal workers, especially ethnic communities like the Agarias who have been traditionally known for iron working. She is committed to the cause of traditional knowledge system and conservation, preservation and revival of technological heritage of India.

She is the author of numerous research papers and several books, such as *The Age of Iron in South Asia: Legacy and Tradition* (2001); *History of Iron Technology in India: From Beginning to Pre-Modern Times* (2008); *Archaeology of Ganga Basin: Shifting Paradigms* (2010); *Rise of Civilization in the Gangetic Plain: The Context of Painted Grey Ware* (2012); and *Anai: A rural Settlement of Ancient Varanasi* (2013).