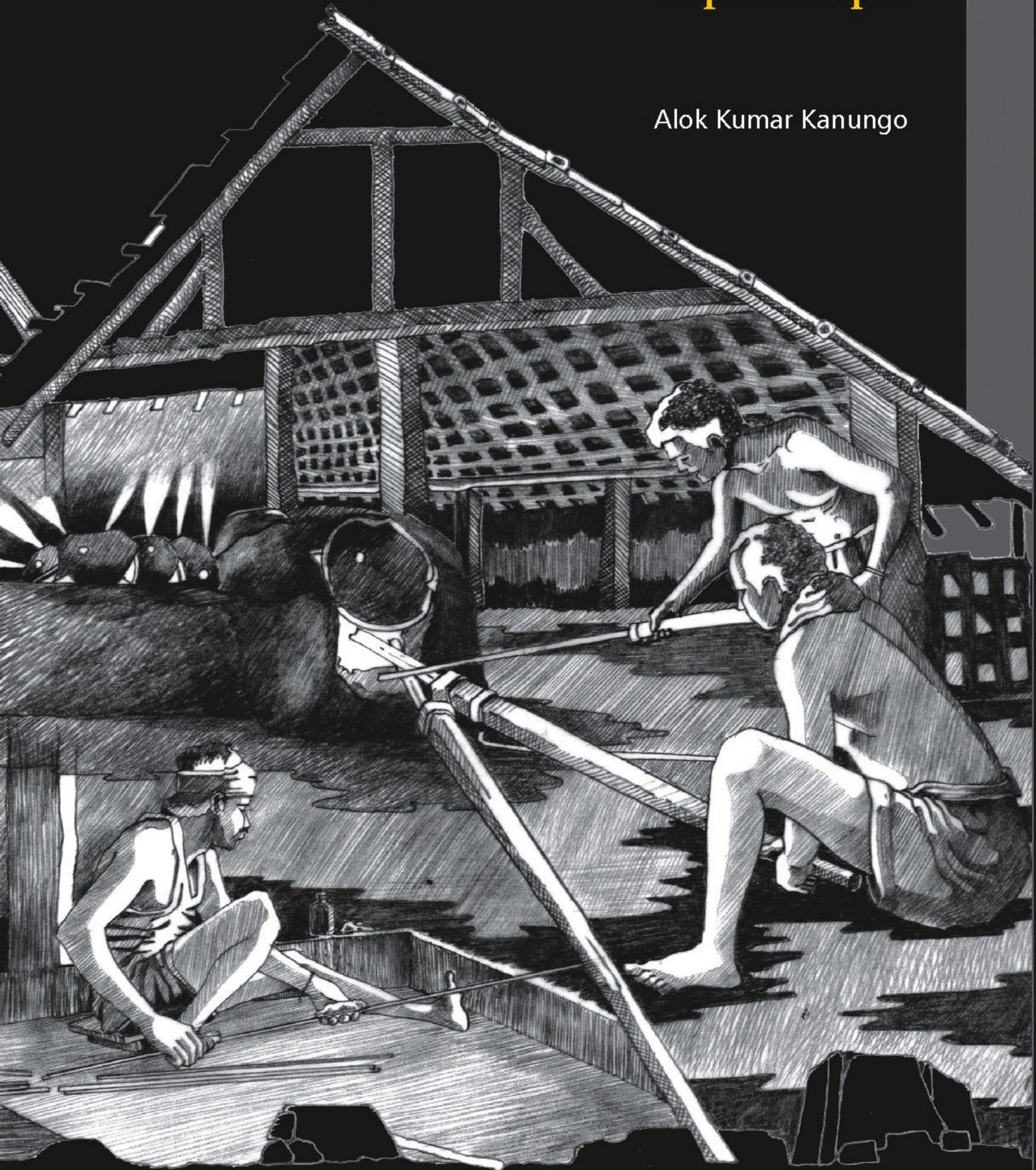


Mapping the Indo-Pacific Beads
vis-à-vis
Papanaidupet

Alok Kumar Kanungo



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Madrid

To

Dr. Robert H. Brill

For his contribution to the field of ancient Asian glass

Mapping the Indo-Pacific Beads vis-à-vis Papanaidupet

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Foreword

Indian Institute of Technology Gandhinagar is proud of its Archaeological Sciences Centre, a unique attempt in the country to build a facility dedicated to scientific investigations of archaeological material and sites. Since its creation in December 2012, we have gathered a small and growing faculty, initiated research projects in fields as diverse as archaeometallurgy, palaeobotany and palaeoclimatology, remote sensing, ceramic analysis, techniques of bead making and drilling, investigations with ground penetrating radar, among others. We have also established a close collaboration with the Archaeological Survey of India and many leading archaeologists in the country and abroad. We hope this Centre will thrive to become a vibrant research facility at the service of India's archaeological community.

Dr. Alok Kanungo's research in glass technology and glass beads in particular has made him one of the world's leading experts

in the field; his excavations at Kopia in Uttar Pradesh are now a landmark in the field. With his archaeological experience he combines an ethnographic approach that has thrown much light on this rich and ancient craft tradition of India. His study and documentation of Papanaidupet, a little-known but important traditional centre of glass bead manufacture, makes fascinating reading.

I am particularly happy that an advance copy of this beautifully illustrated book is being released on the occasion of a major short-term course-cum-workshop on the History, Science & Technology of Stone Beads, which our Archaeological Sciences Centre is conducting at IIT Gandhinagar on 10-14 August 2015 with Archaeological Survey of India's collaboration, and in which over fifteen Indian and overseas experts are participating. This is our third workshop imparting professional training in branches of archaeology, which testifies to our commitment to the field.



Sudhir K. Jain

Director

Indian Institute of Technology Gandhinagar

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Preface

In the field of bead studies, Indo-Pacific (IP) glass beads have become synonymous to the village of Papanaidupet. The production technology of this tiny bead was ahead of its time. First invented in South India around the 5th century BCE and then spread to the rest of the Pacific, the IP beads have a dominant presence in the bead world for the last two thousand and five hundred years.

From having multiple production centres and a wide geographic and temporal spread, the IP beads came to be a one centre at one place phenomenon. The only IP bead industry which continued to produce beads in the traditional way till 2012 was at Papanaidupet, Chittoor district, Andhra Pradesh, India. This cottage industry retained the answers to many archaeological puzzles relating to glass in general and glass beads in particular.

It is unfortunate that since 2014 there has been no production of glass beads at Papanaidupet. The evidences from there are on the verge of disappearance, bringing an end to a golden era in glass and glass bead history. During 2007-2012 only two furnaces were functional and during 2013-2014 workers lighted the furnace not regularly but only when they got the bulk orders. On the other hand only 20 years before, there

used to be about 20 furnaces working day and night.

The present work discusses the origin and dispersal of IP beads, their technological innovations, the reasons for the continuation of this 2500 years old bead making tradition, the history of Papanaidupet and a detailed and exhaustive recording of the IP bead production cycle. It traces the people involved in this cycle, maps the entire village vis-à-vis the bead industry, and examines what signatures it leave behind once abandoned for the archaeologists.

Introduction

In comparison to archaeological material such as pottery or metals, the occurrence of glass in ancient sites is of a very low frequency. Glass was never produced on a very large scale, or over as wide an area as other materials. This is because it required an advanced technological skill to generate and maintain the required temperature in the furnace for long periods. Though the origin of glass is obscure, the New Kingdom Egypt (1550-1070 BCE), the Roman period (27 BCE – 393 CE), and the era of Islamic dominance in the Mediterranean (c. 600-1400 CE) are generally considered the greatest phases of ancient glass making and ancient glass bead production.


Technical sophistication of bead manufacturing often mirrors the general technological level of the society. As the focus of the scientists has been on glass technology and not on beads per se, the chronology of its production technological evolution are not known. Glass bead production requires a unique technique secondary to the production of glass itself. In most cases this comprises reworking of already manufactured glass. Owing to its small dimensions, beauty, durability and versatility, glass beads once produced at a place travels far and wide. Many a time the same glass bead is used for more than a generation as heirloom. Thus it is an important marker of trade and an object to be studied in its spatio-temporal context.

Use of blowpipe which revolutionized the use of glass in the West is well known. However, a technological leap in glass

technology in the Indian subcontinent that predated this invention has not got its due credit. About 2500 years ago, the Indians figured out how to pass air through a 3 mm diameter tube of glass measuring about 10 metres or more. These are then broken manually to pull out more length. They are cut and rounded into seed/IP beads. Since that time these beads have been traded to more places than any other glass product. Evidences suggest that the IP beads travelled by both land and sea. They are found in coastal and riverside settlements, as well as in the hinterland. They are used and found in archaeological contexts in large numbers. They are strung in various styles for personal adornment as well as for house decoration. From very early on they have been used on clothes and shoes world over. They are also a symbol of marital status for women in most parts of South India and Deccan region.



Indo-Pacific Regions



Mapping Indo-Pacific Beads vis-à-vis Papanaidupet is not only about beads, bead production cycle, people involved in their manufacture, and traditional bead users, but also about the most important glass bead city of the world. The archaeological community has spent considerable time and energy in reconstructing ancient cities with bead workshops and has formulated many hypotheses about them. This is the first and last time that a bead city identical to those of 2,500 years old has been recorded ethnographically and visually in full detail. This attempt has captured a visual model for future glass and glass bead researchers. The book discusses the history and context of research on Indian glass, drawing its data from ancient literature, archival and archaeological sources. The rationale of the work is to answer the puzzles raised by archaeological evidence with an ethnoarchaeological approach.

Dr. Alok Kumar Kanungo, a faculty at IIT Gandhinagar, was born in Odisha and grew up in close contact with many tribal communities of eastern and north-eastern India. His early childhood experiences led him to eventually focus on archaeological and ethnographic studies of tribal and ancient technology.

For the last two decades, Dr. Kanungo has travelled and documented the rich heritage of the Nagas of north-east India, and the Bondos and Juangs of Odisha both in the field and in museums across Europe and United Kingdom. He has worked in many areas where it is difficult to say where anthropology or history stops and archaeology begins. He has studied and published extensively on the subject of glass and glass bead production, and written or edited nine books and about five dozens research articles. He has been the recipient of many prestigious awards including Humboldt, Fulbright and Homi Bhabha Fellowships. He has lectured at many universities and research institutes in Taiwan, England, USA, New Zealand, Bangladesh, Italy, France, Turkey, Malaysia and Germany, besides India.

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Aryan Books International

Pooja Apartments, 4B, Ansari Road, New Delhi - 110002

Tel.: 2328 7589, 2325 5799; Fax: 91-11-2327 0385

E-mail: aryanbooks@gmail.com

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