activities developed during the Early Historic period even at a small settlement like Khairadih. Another noteworthy contribution of this site is that, the AMS date assigned to the middle of the third millennium BCE from the Chalcolithic level is in conformity with similar dates found from some other sites of the mid-Ganga Plain and fills the gap between the beginning

of human settlement cultures and the Early Historical period.

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## Workshop Report Short Term Course-cum-Workshop on History, Science & Technology of Stone Beads 10-14 August 2015

Our country needs well-trained, motivated archaeologists and anthropologists to face diverse future challenges ahead in both fields, which by all predictions are going to be complex and urgent. To realize this, the Archaeological Sciences Centre (ASC), Indian Institute of Technology Gandhinagar (IITGN), has been conducting highly targeted and integrated workshops twice a year. These workshops are aimed primarily at: (1) understanding our past with the aid of the most up to date scientific and multi-disciplinary approach, (2) making the best teaching and training program available to students and researchers, and (3) generating much needed trained manpower for the future.

In the second half of 2015 (August 10th to 14th), the ASC in collaboration with the Archaeological Survey of India (ASI) conducted a Short Term Course cum Workshop on History, Science and Technology of Stone Beads. It aimed to train manpower in how to study and analyse stone beads in diverse contexts ranging from class rooms, to while being in the field, in laboratories, and by working with craftsmen. Stone beads have gained a reputation of being one of the most important markers of prehistoric technological complexity, especially in South Asia and their study is crucial to understanding our past contacts, technology and trade, besides comprehending our mastery over

material culture and the procurement of diverse raw materials. The workshop also showcased Gujarat's cottage industry of stone bead making and the craftsmen (who are the living present of a 5000 year old Indian tradition which dominated certain kinds of bead production) to rest of the world in its true historical, ethnographic, scientific and technological senses.

This short term workshop discussed the development of stone beads through the ages, ranging from literary and epigraphical references, discussions over the utility and fruitfulness of typologies, the techniques historically used in their production, and finally modern scientific procedures which can be used in their study to better understand and interpret the past technology. Eighty participants (young students, scholars, faculty members and archaeological departmental staff members interested in the archaeological and anthropological study of beads, ancient technology and crafts) were selected out of 250 applications received from various universities, research institutes and museums.

The welcome address was delivered by Prof. S.P. Mehrotra, Dean Research and Development, IIT Gandhinagar followed by remarks from Dr. M. Mahadevaiah, Regional Director, ASI, West Zone. The inaugural address was delivered by Prof. S.K.

Jain, Director, IIT Gandhinagar, and it was followed by the inauguration of a Poster Exhibition on the activities of the Archaeological Sciences Centre by Prof. D.V. Pai, Professor in-charge, Humanities & Sciences Disciplines, IIT Gandhinagar.

In the Plenary Lecture entitled History of Stone Beads by Prof. J.M. Kenoyer, University of Wisconsin-Madison, USA, gave a broad overview of the origin and development of stone bead technologies in prehistory, stressing the origin of pecking and drilling techniques and developments therein and the crucial significance of identifying these in the study of beads. The other eminent scholars who shared their views with the participants were Prof. Kishore K. Basa, Dr. R.S. Bisht, Dr. V. Selvakumar, Prof. K.K. Bhan, Prof. Massimo Vidale, Dr. Bérénice Bellina, Dr. Bunchar Pongpanich, Dr. Vikrant Jain, Dr. Randall Law, Dr. Laure Dussubieux, Prof. Ajithprasad, Dr. V.N. Prabhakar, Dr. Bhuvan Vikrama, Prof. R.K. Mohanty, Prof. K. Rajan, and Prof. Manabu Koiso.

Experts and participants were from ten countries including USA, UK, France, Japan, Thailand, Iran, Nepal, Sri Lanka, Bangladesh and India. It was gratifying to see that participants came from most of the Indian states and represented about 30

universities, research institutes, museums, state departments as well as delegates from bead-making industries. This course-cum-workshop proved to be an experience of a lifetime for the participants. They met eminent personalities of the subject from India and abroad who have excelled in their fields and today are role models to emulate. The participants were exposed to recent research trends, various methods in the scientific analyses of stone beads, and to the traditional craftsmen and their techniques. Participants were also guided through hands-on experiments and observed the various process of the bead making as demonstrated by the Khambhat craftsmen both during the workshop and during the fieldtrip to Khambhat.

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