

# Preface

This Conference Proceedings volume contains the written versions of the contributions presented during the Ninth international conference on the Beginnings of the Use of Metals and Alloys (BUMA-IX). It took place at the International Center, Dong-A University in Busan, Korea from October 16 ~ 19, 2017.

The international conference on BUMA is the interdisciplinary gathering of scientists, engineers, archaeologists and historians with a focus on production and use of metals, and an emphasis on cultural interactions and evolutions over time and space especially between the West and the Asian region. The main theme at the Busan Conference was “Cultural Interaction and the Use of Metals”. The Conference provided a forum for discussion on the effects of metals on the culture and history with a special focus on Asian materials. Comparative studies and case studies on ancient and traditional metallurgy from other regions can illuminate the interactions between the Far East and the West through South Asia as well as Eurasia.

The Conference was consisted with 8 different sections which were (1) Casting Technology of Bronze and Iron, (2) Copper and Bronze Technology, (3) Experimental Metallurgy, Survey Methods and Conservation, (4) History of Alloys (Brass, Paktong and Shiromé) (5) Iron and Steel Technology, (6) Ores and Metal Production, (7) Precious Metals and Coinage, and (8) Swords and Iron Artifacts. From all these themes, the Conference provided a setting for discussion on recent developments in the fields of metallurgical and/or technical histories of artifacts and have been cleared the performances in addition to methodological analysis to obtain the understanding on how to fabricate metallic artifacts from all parts of the ancient world. The Conference has been a good opportunity for participants coming from many countries including South Korea, China, Japan, India, United Kingdom, Australia, United States, Iran, France, Italy, etc., to present and discuss topics in their respective research areas.

We would like to thank all participants for their contributions to the Conference program and for their contributions to this conference publication. Many thanks go as well to the the Korean Institute of Metals of Materials, Busan city, the Korean Federation of Science and Technology Societies (KOFST), Dong-A University, and POSCO for their financial support on this Conference. We also express our sincere gratitude to all committee members for their efforts on making this Conference successful.

*The Editors*