NOVEL APPROACH FOR ANALYZING BRAHMI SCRIPTS

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ABSTRACT

Writing is one of the most important inventions of humankind. There are few main languages in the ancient world. Among these ancient languages Sanskrit was used in the Indo region. Brahmi script is one of the most important ancient letters in South Asia. It became the matrix of Debanagari character used for Sanskrit and Hindi. The people of Sri Lanka are fortunate that some of the writing of their ancestors is preserved on various inscriptions found throughout the country. These inscriptions have been discovered under the drip ledges of caves, rocks, pillars and slabs. Inscribed gold, silver and copper plates have been discovered as well. On the decipherment of these inscriptions, historical, linguistic and paleographical conclusions could be arrived at.

The source data of this study is already published as gray scale images of early Brahmi script. These images are taken from the paper copies of inscriptions called as estampages (rubbed copy). Up to the present, reading and analyzing these inscriptions are done manually. The aim of this study was to develop algorithms based on image data of these estampages and implement a digital data repository. The process of this study can be divided into several stages as follows: (1). Producing precise alphabet fonts of early Brahmi scripts from photographic data, (2). Development of a precise method of identification of ancient letters with the aid of the alphabet fonts, which leads to automatic reading of ancient inscriptions by computers, (3). Database implementation for the analysis, (4). Development of web based interface for scholars over KISSEL network to share the knowledge and experience among the KISSEL users.

Key words: Brahmi scripts, alphabet fonts, image database