

Image Processing Approach for Ancient Brahmi Script Analysis

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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 Indo region. Brahmi script is one of the most important ancient letters in South Asia. It became the matrix of Debanagaricharacter used for Sanskrit and Hindi. And, it produced Burmese script, Khmer script, Thai alphabet, Laotian alphabet, Tibetan alphabet, etc., during the last two thousand years. 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 grayscale 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 by manually. The aim of this study is 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 few stages. Such as: (1). Producing precise alphabet fonts of early Brahmi scripts has been produced from photographic data, (2). 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). Develop web based interface for scholars over KISSEL network to share the knowledge and experience among the KISSEL users.