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PAPER

**Use of Analytical Chemistry in Numismatic Studies**

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Numismatics; the study of coin and currency is one of the interdisciplinary subjects of archaeology. Although archaeology has a stable and accepted position in the Sri Lankan context, numismatics is still at a relatively preliminary stage. Therefore, this study is an overview of multidisciplinary approaches to numismatics and their application. Another purpose of writing this paper is to try to interpret ancient techniques, social and economic states, foreign affairs of ancient people and try to identify value by combining numismatics with analytical chemistry.

Regarding this paper X-Ray Fluorescence (XRF), Energy Dispersive X-Ray Fluorescence Spectrometer, Proton Induced X-ray Emission (PIXE) techniques are used to discuss the presence of Gold (Au), Copper (Cu), Silver (Ag), and Lead (Pb) in ancient coins. Among them non destructive methods are discussed to account for the non-renewable nature of the artifacts.

Both qualitative and quantitative determinations of the metals in ancient coins are done using above techniques. Based on the result (percentages of the elements) technology of ancient societies and usage of metal resources can be interpreted.

The researchers wish to point out the utility of using multidisciplinary approaches to numismatics, whereby many other disciplines will find nourishment.