

Scientific Discoveries on Archaeology of the Seruwila Copper Magnetite Deposit

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This paper intends to prove scientifically the use of local Seruwila metal deposits in the historical periods of Sri Lanka for its copper requirements. This paper also highlights the importance of the local Seruwila copper magnetite deposit in the process of transition from stone age cultures to metal using cultures in the Island in contrast to the present general belief that Sri Lanka started its cultural formation directly from an Iron Age in which, we had not considered internal dynamics at all, but exaggerated external dynamics. By looking at the earliest metal findings of Sri Lanka and also according to the availability of resources, this paper argues that this local metal deposit should have had a great impact on the process of Sri Lankan cultural formation. It explores the possibility of the use of scientific analyses such as compositional and trace element analysis and stable lead isotope analysis for the identification of this particular copper source. Scientific analyses show that this metal deposit had been heavily exploited in the historical periods. Interestingly, the Gajalakshmi coins found from different parts of the country (Anuradhapura, Jaffna, Tissamaharama) have shown the use of this particular metal deposit for their manufacture, perhaps indicating its wider use. Further, this paper discusses possible evidence to prove the idea of exporting copper from this source to India. The results further indicate that the intensity of using this metal deposit had decreased after the Polonnaruwa period.

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