

## **A scientific study of the Sri Lankan Anuradhapura period bronze images**

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Trace element analysis and stable lead isotope analysis made on Sri Lankan historical bronze images belonging to the Anuradhapura period have revealed the use of copper from the local Seruwila copper magnetite deposit for their production. The results have important implications for resource utilizations in bronze industry of the country during the Anuradhapura period. It shows mainly copper from two different copper sources (i.e. local Seruwila copper and copper from an unknown source local or foreign) had been utilized during this period. But the results indicate the intensity of the use of local Seruwila copper source during that period is very high compare to the other. In addition to this, interestingly the stable lead isotope results revealed two distinct lead sources had been utilized for the production of the above two series of bronze images which have made with the copper from the local Seruwila source and the copper from an unknown source. Further it has been found that these two series of images have shown compositional and technological differences perhaps indicating two schools of image productions that had been existed during the Anuradhapura period.

**Key words:** Bronze images, Archaeology, Isotope analysis, Copper, Anuradhapura period - Sri Lanka.

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