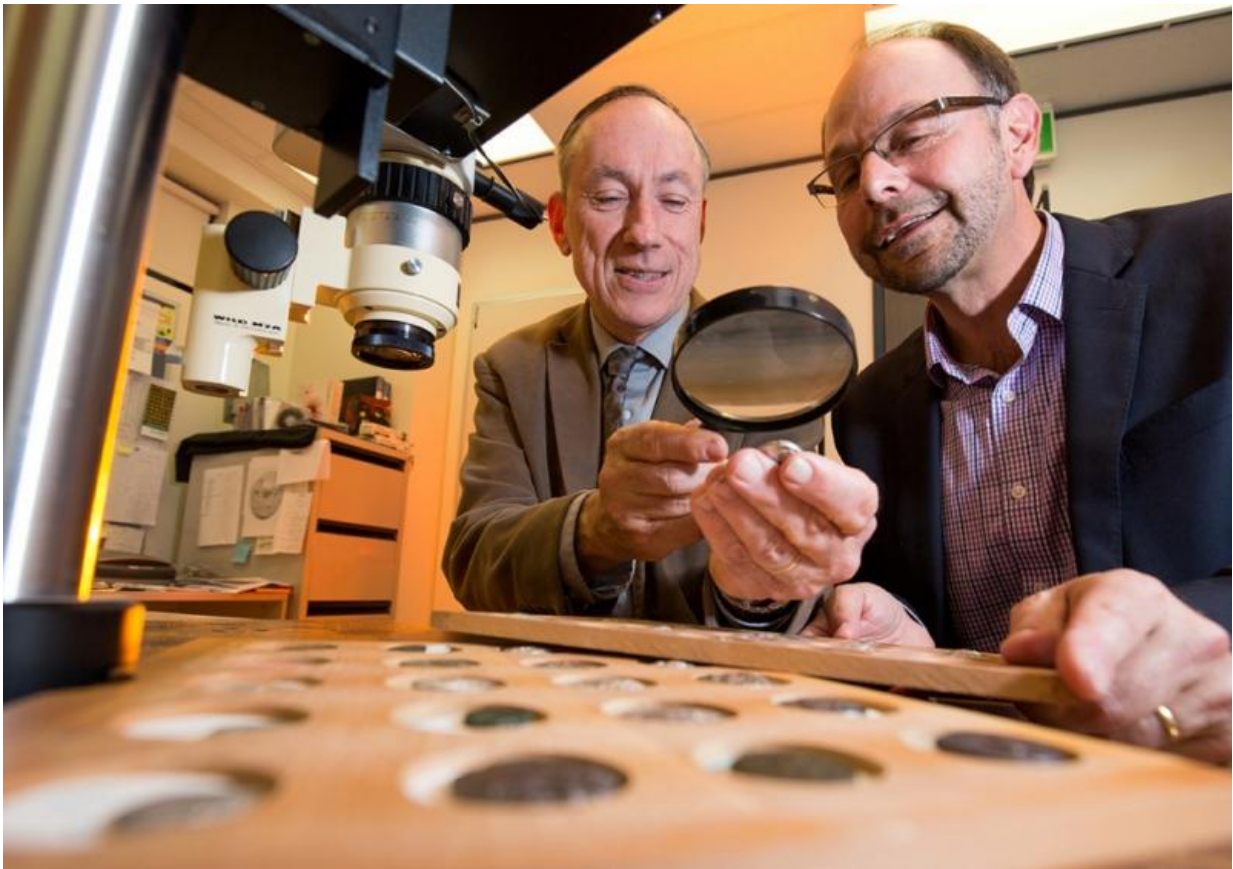


Pioneering technology gives new insight into ancient Greece

September 8 2015



Associate Professor Kenneth Sheedy and Dr Gil Davis examine ancient coins.

A team of researchers from Macquarie University recently brought science and ancient history together by using new non-destructive

technology to analyse artefacts from ancient Greece.

As part of a project funded by an Australian Research Council (ARC) discovery grant, Associate Professor Kenneth Sheedy, director of the Australian Centre for Ancient Numismatic Studies at Macquarie University (ACANS); Professor Damian Gore; and Dr Gil Davis used Energy Dispersive X-ray Fluorescence (EDXRF) Spectroscopy to evaluate the composition of approximately 1000 coins from archaic Athens (550 BC – 480 BC).

The study was the first to employ a high-power, transportable instrument for XRF spectrometry in a statistically broad-based study of the coin output of one of the most important mints in antiquity.

"The use of this transportable machinery and on-the-spot analysis is revolutionary in the study of ancient history," Sheedy said. "We hope that eventually our research will enable us to learn more about the role money played in the development of Athenian society as it moved to democracy."

The team spent three years (2012-14) doing fieldwork around the world, including in some of the main archaeological museums in the United States, England, Germany, France and Greece.

"Through our evaluation, we gained valuable knowledge about a variety of factors that have influenced the present condition of the coins such as corrosion, historical preservation methods and environmental conditions," Davis said.

Using this data, the team now plans to determine the degree to which archaic Athenian coinage was produced using silver from the local mints in the Laurion district, located in the south-eastern countryside of Attica.

A video presentation of the team's work, together with an important selection of archaic Athenian coins and artefacts related to the mining and smelting of silver ores in the Laurion, are on display at the Athens Numismatic Museum in Greece until 31 October 2015 as part of the "When Silver was born..." exhibition open to the public.

Valuable material for the displays, including some unique archaeological finds which are being exhibited for the first time, was provided by the Athens Epigraphic & Numismatic Museum, the National Archaeological Museum of Greece, and the Alpha Bank Numismatic Collection.

The team also presented their preliminary fieldwork results at an international conference in Athens in April. The conference titled "Mines, Metals and Money in Attica and the Ancient World," was jointly organised by ACANS.

Provided by Macquarie University

Citation: Pioneering technology gives new insight into ancient Greece (2015, September 8) retrieved 12 May 2024 from <https://phys.org/news/2015-09-technology-insight-ancient-greece.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.