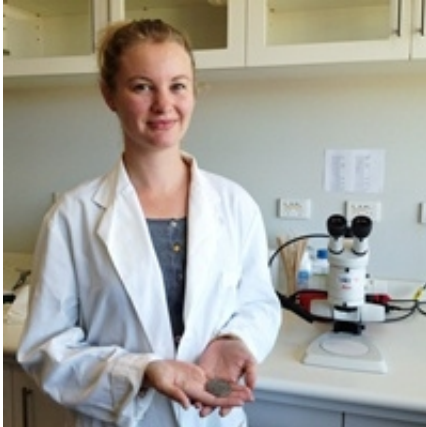


Haunting tales in ship-wrecked silver

September 25 2014, by David Stacey



In her work of analysing the silver coins recovered from six ships, wrecked off the WA coast over almost two centuries, PhD candidate Liesel Gentelli finds herself thinking of some of the wreck survivors.

"I can't help thinking of those people washed up on a beach, not knowing where they were, not knowing what might happen to them," she said.

Liesel (25) from The University of Western Australia's Centre for Forensic Science, is using [laser ablation](#) coupled with a mass spectrometer to analyse silver from the wrecks of the Batavia (1629), the Vergulde Draeck (1656), the Zuytdorp (1712), the Zeewijk (1727), the Rapid (1811) and the Correio da Azia (1816). The first four vessels were Dutch, the Rapid was from the United States and the Correio da Azia

was Portuguese.

Held at the WA Maritime Museum, about half the [silver coins](#) still have details of where they were minted stamped into them. But the other half are badly damaged or in fragments and these are the ones Liesel is hoping to identify.

Focussed laser light couples with the surface of each coin at a temperature of over 8,000oC and turns a small circle of silver, no wider than a human hair, into a vapour cloud. This vapour cloud is then analysed for more than 50 elements using a [mass spectrometer](#). By comparing the trace elements in these samples with the silver in the [coins](#) from known mints, Liesel can trace each fragment back to its mine of origin in the Americas.

"During the years these ships were wrecked, Spanish silver was like the American dollar today - it was a universal currency," Liesel said. "These ships carried a lot of it because they were supplying their colonies with currency. They also used it as ballast.

"When divers came across the Zuytdorp for the first time they described a 'carpet of silver on the sea floor'."

Together with coins, other [silver](#) articles recovered from the wrecks include the decorations on the bedposts used by the Batavia's captain, a spoon, a jacket button and an ornate belt buckle. "Working with these articles, I wonder about the people who once used them," Liesel said, "But I also think of the miners who worked in appalling conditions, and who often died on the job, only to have the precious metal they hauled out of the ground lost at the bottom of the ocean."

Provided by University of Western Australia

Citation: Haunting tales in ship-wrecked silver (2014, September 25) retrieved 25 April 2024 from <https://phys.org/news/2014-09-ales-ship-wrecked-silver.html>

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