

## **Viking wealth in the Irish Sea zone: new evidence from lead isotope analysis**

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A concentration of Viking-Age precious metal hoards in north-west England and south-west Scotland indicates that the region around the Irish Sea was awash with silver. The acquisition of this silver was a prime motivator for the Viking expansion, and provided the underlying wealth that made extensive travel and settlement possible. But from where did it originate?

While the sources of Viking silver wealth are known in outline - the Vikings acquired silver from the Islamic Caliphate but also from Continental Europe and Britain - the specific sources of silver entering the Irish Sea region remain obscure, in large part due to the melting down of coin to fashion rings and ingots. In such cases, the only means of identifying potential silver sources is through archaeometric analyses.

In this paper, I report on the results of recent lead isotope and trace element analysis of Hiberno-Scandinavian artefacts (including broad-band arm-rings and penannular brooches) found in the Irish Sea zone, undertaken as part of an ERC project. The results reveal the relative contribution to these products of Carolingian, Anglo-Saxon and Islamic silver, revealing separate waves of silver entering the region, as well as the mixing of different silver stocks. Unexpectedly, the analyses also shed light of the likely contexts from which silver was acquired (most likely, looted). It thus leads to new understanding not only of the wealth networks of Vikings operating across the Irish Sea, but also of the places they targeted in their quest for silver.