

Towards a chronology for non-ferrous mining in southern Africa: A perspective from Rooiberg and Phalaborwa

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Today southern Africa supplies huge volumes of copper, cobalt and other minerals required for modern technologies, usually with little benefit to communities living near these deposits. Mining in this region began by AD 300-400 but most precolonial mines have been destroyed since 1920 by industrial mining. Geologists and mining engineers documented mines in operation during the late 19th and early 20th centuries but evidence for earlier mining continues to be destroyed without being recorded, as few countries have laws which mandate archaeological survey and mitigation. Since 2019 Killick and Stephens have reconstructed aspects of the early history of mining in southern Africa through the isotopic and chemical analysis of archaeological copper and tin artifacts. These data help match dated archaeological samples with their parent ore deposit, thus allowing for chronological reconstructions of mining. This presentation focuses on two such deposits in South Africa – the Rooiberg tin deposits in the Bushveld Large Igneous Complex and the Phalaborwa Igneous Complex on the border of South Africa and Mozambique. Previous rescue and archaeological excavations around these two locations dated the mining of tin at Rooiberg to cal. AD 1400, and mining for copper or iron at Phalaborwa to cal. AD 1000. We can now show that tin from Rooiberg was extracted by cal. AD 1200, in conjunction with the rise of Mapungubwe (southern Africa's first state), and that copper from Phalaborwa was mined by at least cal. AD 700. Our aim in this talk is to highlight alternative pathways for documenting the early history of mining, particularly for places which have not received the same documentation and heritage preservation initiatives.