

Exposition at
the Munich Mineral Show 2018

FOLLOW THE GOLD: NUGGETS FROM CAERHAYS CASTLE AND THE SKY DISC OF NEBRA

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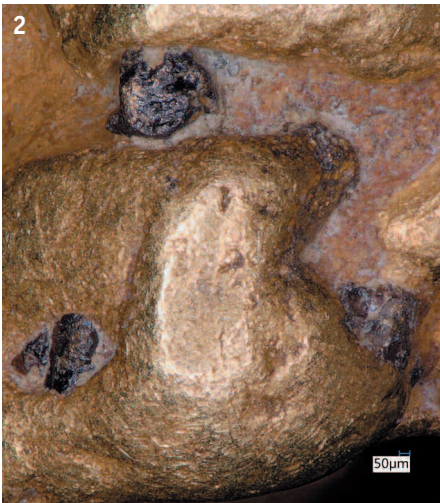
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1. Caerhays Castle (Cornwall, UK) in springtime, present-day residence of the former Williams family mining dynasty. Photo: Caerhays Estate.

2. **Gold** nugget (3.1 gram) with embedded **cassiterite** grains. Carnon Valley Tin Stream Works, Cornwall, UK. Specimen: Williams Caerhays Mineral Collection, # WCMC-09G. Photo: Gregor Borg & Simone Schiele.

3. Display at the Munich Mineral Show 2018 entitled 'Follow the Gold – From Cornish nuggets in Caerhays Castle to the Sky Disc of Nebra'. Photo: Courtenay V. Smale.



The rediscovery of the mineral collection at Caerhays Castle, having lain dormant and forgotten for over a century, was triggered by the appointment of Courtenay Smale in 2008 as its curator. The minerals had been secreted throughout the castle, and since 2008 have gradually come to light, resulting in the present-day display as part of the castle house tours.

In 2011 Smale discovered a cache of thirty gold nuggets secreted with Williams family oddments in the castle. A cursory examination indicated that there were grains of cassiterite embedded in many of the nuggets, which ranged in weight from 1 to 20 gram. This immediately suggested that they could be of Cornish origin.

The Williams family of Scorrier House was reported to have several large pieces of Cornish gold in their mineral collection in 1851 and a half century before that held a lease to work the Carnon Valley alluvials for tin. Gold was never the primary mineral in Cornish alluvials, but occasionally was won from tin streaming as a by-product. The Scorrier House mineral collection was moved to Caerhays Castle in the early 1860s.

In 2017 Smale became aware of the research being undertaken on the source of the gold in the Sky Disc of Nebra and made contact with Professor Gregor Borg. For a long time after the discovery of the Nebra hoard in the summer of 1999 by two metal detectorists, operating illegally in a site protected by Saxony-Anhalt treasure-trove law, it was assumed that the gold in the Nebra Disc originated from a mainland European source. When none of those gave a match to the Nebra Disc gold, the net was cast further afield, and eventually Cornwall became the focus of interest.



4. Sky Disc of Nebra and associated artifacts. Disc of Nebra loaned State Office for the Preservation of Monuments & Archaeology, Saxony-Anhalt, Germany; Deer Antler Pick (a 3,600 year old Bronze Age), discovered in the Carnon Valley Tin Stream Works, Cornwall, UK. Currently in the Collection of the Royal Cornwall Museum, Royal Institution of Cornwall, Truro, Cornwall, UK. Photo: Simon Timberlake.



5. **Gold** nuggets (total weight of 14 nuggets: 2.37 gram) from the Carnon Valley Tin Stream Works, Cornwall, United Kingdom. Specimen and photo: Williams Caerhays Mineral Collection.



Analyses of the Caerhays nuggets were carried out in 2011 and the results signified that the gold matched that of the Sky Disc. Furthermore, geochemical analyses of the nuggets recorded a high silver content, a significant copper and tin content, and above average levels of lead, zinc, nickel or cobalt. It was concluded that the geochemical fingerprint of the Caerhays nuggets matched that of the Carnon River Mining District. The source of the Carnon Valley alluvials was the rich polymetallic lodes which are located in the Gwennap and Kenwyn parishes to the north. Erosion of the lodes and subsequent rounding by water transportation is evident in the majority of the nuggets. The concentration of metalliferous mining in Gwennap parish in the early nineteenth century was frequently referred to as 'the richest square mile in the world'.

It is, perhaps, difficult to comprehend in this modern world that the mining, metallurgical, and cultural links between Cornwall and central Middle Europe have existed for more than 3,600 years. Not only has the Nebra Disc been dated to 1600 BC, but a deer antler pick discovered in 1790, and used by the tin streamers in the Carnon Valley has also been ascribed the same age – 1600 BC. It was found at a depth of 40 feet (12.2 m) in the alluvium from which the streamers won their tin – and gold!

The Sky Disc of Nebra was created as an astronomical instrument, which enabled the people in the area to monitor the seasons and calculate when to plant and harvest crops. It was set up using the constellation of Pleiades, whose disappearance in March and in October was interpreted as the beginning and the end of the farming year. The calibration of the Disc meant that it could only be used in the latitude of eastern Germany, critical measurements being sunrise and sunset at the summer and winter solstices. Throughout the ages, the Sky Disc lost its use as a calendar and with minor modifications became a cult object, possibly being used as a ceremonial standard.

The Munich Mineral Show 2018 was the first opportunity to make the link between the gold and tin from Cornwall and the Sky Disc of Nebra widely known to the mineral fraternity, and to publicly display the gold nuggets from Caerhays Castle.