A history of mining activity in Celtic Aeduan territory, and its environmental impact (Morvan - France)

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Introduction: Described by Caesar in “De Bello Gallico” in 56 BC as one of the greatest and most fortified towns of Gaul, Bibracte was the lead mining workshop in the entire Aeduan territory. Geochronological analyses, such as 206Pb and 207Pb, have recently been discovered on site, and interpreted by archaeologists as being mining activities. However, they have assumed that the mining activity started around the 1st century AD, due to the abundance of mineral resources. However, this assumption is not yet well defined and cannot be correlated with the results of early Lead mining exploration. The lead was used for many different activities in the area, including the making of tools and weapons, and as a corrosion inhibitor in the construction of ancient buildings.

Mount Bourey is located in the Morvan, a Hercynian massif (550 m, a.s.l.), and is strongly composed of volcano-tectonic rocks and intercalated sedimentary terrain with abundant polymetallic ore deposits (Fig. 3). Textual and field evidence indicates exploitation of fluorine, barite and lead from the late 18th century. The Port-des-lamberts peat bog is almost ombrotrophic, which makes it an ideal site for the preservation of plant macrofossils. The intense exploitation of the area by the Aeduans led to the collapse of the Roman Empire in the late 4th century. However, the presence of lead contamination in the area is still visible today, with the presence of lead mining activity in the area.

Mount Bourey was used as a mining centre, with the extraction of lead and other minerals. The Roman administration probably led to a reduction in local mining operations. Later, the entire population of Bibracte was transferred to found Augustodunum, 25 km away and local exploitation collapsed.

After the fall of the Roman Empire, the Morvan was used as a mining centre, with the extraction of lead and other minerals. However, the presence of lead contamination in the area is still visible today, with the presence of lead mining activity in the area.

Conclusion: The results of this study suggest the presence of intense mining activity which could have created at least in part, their wealth.