PROVENANCE AND TECHNOLOGY OF GALLOROMAN TERRA SIGILLATA IMITATIONS FROM WESTERN SWITZERLAND: PRELIMINARY RESULTS.

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In this work about one hundred sherds of Galloroman Terra Sigillata Imitations (TSI) (1st–3rd C. AD) from three different sites of Western Switzerland (Lausanne, Yverdon, Avenches) have been analyzed to investigate their provenance and technology. Preliminary results are presented here.

The material is being studied with the collaboration of the Archeologists interested to solve the question if the TSI-potters, which names are stamped under the base of the sherds, produced each one in his own, distinct pottery workshop or if the potters worked at different places, using different clays. Another purpose of this work is to know if there is any chemical and technological time-depending evolution of the pottery manufacturing at different sites.
The sherds have been studied by Optical Microscopy, X-Ray Diffraction (XRD) and Chemical Analysis (XRF) of major and trace elements.

Petrographical observations on the Lausanne samples allow to distinguish the use of two kinds of clays, the first one rich in coarse-grained temper with a siliceous matrix and the second poor in fine-grained temper with a carbonatic-siliceous matrix. XRD show the presence of primary minerals such as Quartz, Illite and of firing ones such as K-feldspar, Gehlenite, Pyroxene and Hematite. Wairakite and Calcite are secondary phases. The firing temperatures are estimated between 850°–950° resp. > 950°C.

Samples from Yverdon are chemically very homogeneous with high CaO (mean 12 wt%), and a fine-grained temper-poor matrix. Aboundant secondary Calcite is present in pores. The firing temperatures, deduced from the phase analyses, were probably for one group about 850°C, for the second between 850°–950°C, and for the third > 950°C.

Ceramics excavated at Avenches are chemically homogeneous, and the sherd matrix is fine-grained, with few temper fragments, and a lot of clay pellets and secondary calcite. Five sherds show a siliceous and temper rich matrix. Their CaO content is lower (< 5% wt) than the major group, and the firing temperature is estimated to > 950°C. In addition other two samples of this group show an abnormal behaviour in their chemical and petrographical composition, indicating therefore a probable foreign origin.

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