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Provenance inquiry of Inka Period ceramics: a petrographic study

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Our archaeometrical research deals with the determination of the provenance of the Inka Period (A.C. 1450—1535) pottery from Paria, an Inka administrative centre in Department of Oruro, Western Bolivia. Since this settlement was found at the intersection of two important imperial road it can be stated that Paria could play a significant role in the Inka Empire.

During the field excavations different archaeological types of pottery were found. There could be distinguished a classical Inka imperial type, a lower-quality type and an outsider type of ceramics with different appearance.

The question was that it is possible or not to catch this difference in the material of the ceramics. It was an interesting point too to separate the local and non-local raw materials of pottery and to find some potential sources in the vicinity of the archaeological site.

To get answers to our questions we collected samples from the archaeological finds (more than 300 pieces of pottery) and from the local alluvial sediments and hard rocks. The method of the comparison was the microscopic petrographic investigation.

On the basis of the petrographic observation of the Inka Period ceramics we could create four main petrographic group of pottery: the (1) "mineral fragment" type (quartz, feldspar, biotite – volcanic origin), the (2) "volcanic lithofragments" type (acidicneutral volcanic and volcanoclastic rocks), the (3) "siltstone" type and the (4) "metamorphic lithofragment" type (micaceous talcose schist). The (1) and (2) types cover the Inka imperial type ceramics, while the (3) group shows identity with the lowerquantity type and the (4) group with the outsider type ceramics.

During the field work we could collect samples from the Quarternary alluvial siltysandy sediments of the (intermittent) rivers of the Paria basin, and the older Cenozoic hard rocks of the outcrops of the near mountains (Eastern Cordilleras). This hard rock collection contains Palaeozoic siltstone-sandstone samples and Miocene-Pliocene volcanic and volcanoclastic rock samples. The petrographic investigation of these materials will give answers about the local or non-local origin of the materials used to make the four petrographic groups of ceramics of Paria. It is probable that the sedimentary rocks have local origin, the volcanic-volcanoclastic rocks derive from the wider vicinity of the archaeological site while the metamorphic rocks are non-local.

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