

GILDED MEDIEVAL ISLAMIC GLAZED CERAMICS : PRODUCTION PROCESS AND EVOLUTION IN THE IRANIAN WORLD (12TH-13TH C.) AND THE TIMURID EMPIRE (14TH-15TH C.)

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Timurid architecture is characterised by façades entirely covered with glazed ceramics. Some of them present a specific decoration made of gold leaves. This technique seems to have been imported from the Iranian World with the potters Tamerlane deported to Samarkand and Kesh – his hometown – during his military conquests.

The first aim of this paper is to determine the main steps of the production process of such a decoration. To reach the information, non destructive analyses have been privileged such as SEM-EDS and PIXE so as to determine whether the gold used was alloyed or not. RBS estimates the width of the gold leaf and determinates the nature of the different layers as well as the roughness of the interface. The surface roughness of the virgin glaze, the gold leaf decoration and the glaze that used to be gilded is studied by white light interferometry. Surface XRD pole figures are of very high interest as they give information not only on the mechanical treatment but also on the thermal treatment the gold leaf underwent in the past.

Then, another issue of the study is to compare the data obtained on gold leaf decoration coming from Timurid tiles (14th-15th c.) with Iranian sherds dating from 12th-13th c. showing the same kind of decoration. This will enable to conclude whether it is the same production process, and if so, what its evolution in its well-defined geo-chronological context is.