

Characterization of ancient harappan faience bangles

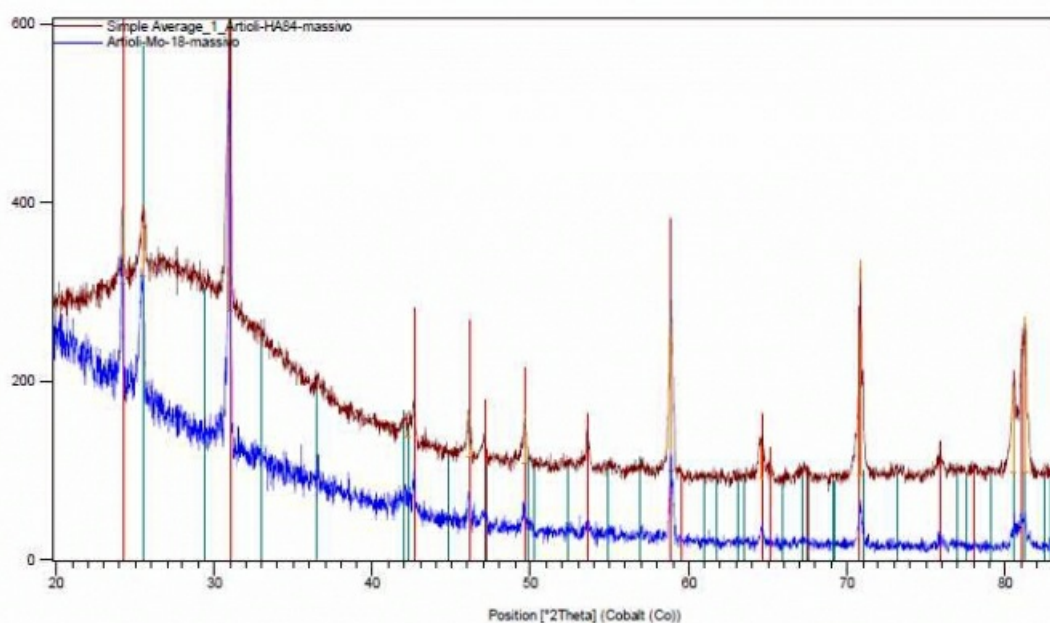
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Several types of faience were produced by the Indus Valley civilizations during the Early (3300-2600 BC), Middle (2600-1900 BC), and Late Harappan (1900-1300 BC) periods [1], including faience, glassy faience, and glazed terra-cottas. A special kind of high-strength faience was manufactured by multiple-step grinding and fritting procedures [2] to produce wear-resistant bangles. Several fragments of such high-strength faience from Harappa and Moenjodaro were analysed by XRPD, SEM-EDS, and Raman spectroscopy in order to check for similar production techniques and starting raw materials between the two archaeological sites, and compare them to previous characterization [2]. The phase purity, the observed high amount of cristobalite, and the textural homogeneity of the samples agree with the proposed multiple fritting preparation procedure.

[1] Keynoyer, J.M. (1994) *Ornament*, 17, 36-39.

[2] McCarthy, B. & Vandiver, P. (1991) *MRS Symposium Proceedings*, 185, 495-510.



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