

MINERALOGICAL AND GEOCHEMICAL CHARACTERIZATION OF GLASS LINED CERAMIC GLAZES FROM ARCHAEOLOGICAL SITE IN ILE-IFE, SOUTHWESTERN NIGERIA

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Recent investigation shows that glass and glass beads found in 10th Century excavation sites in Ife area south western Nigeria possess distinctive composition. There is the existence of low sodium, low magnesian high-lime, high-alumina glasses, with both lime and alumina greater than 10 wt% (now referred to as HLHA). The association of these glass and beads with glass-lined mullite crucibles recovered in excavation sites in Ife shows that they were manufactured in or near Ile-Ife. Chemical investigation of the 35 crucible fragments shows that the fabric is characterized by a very high alumina content (25-35%), less than 3 – 3.5% K₂O, 1.5- 2% Fe₂O₃ and about 0.3 % each of CaO, Na₂O and TiO₂ identifying this as a particularly refractory material based on a very rich kaolinitic clay derived from a tourmaline bearing pegmatite widespread in the area. The data provides the first empirical evidence for the existence of a glass bead technology in Africa during the Classical period.