European Mineralogical Conference
Vol. 1, EMC2012-587, 2012
European Mineralogical Conference 2012

Neolithic pottery from southern Spain – locating the raw materials

H. Müller-Sigmund (1), I. Medved (2), J. Linstädter (2), G.-Ch. Weniger (3), and M. Harmath (1)

(1) Institute for Geosciences (Mineralogy-Geochemistry), University of Freiburg, Freiburg, Germany (hiltrud@uni-freiburg.de), (2) Institute of Prehistoric Archaeology, University of Cologne, Köln, Germany, (3) Neanderthal Museum, Mettmann, Germany

Due to frequently rather coarse grained temper material, mineralogical investigations of Neolithic pottery often reveal instructive references to characteristic local rocks and minerals. This aids in the understanding of manufacturing, transport, and use of pottery in this period. Twelve pottery fragments from the Neolithic site of Cabecicos Negros (Vera, Almería, Spain) were investigated by polarization microscopy and electron microprobe. Specific associations of mineral and rock fragments were distinguished, which can be correlated with local geological units. These comprise the metamorphic basement of the Betic Cordillera as well as sedimentary cover rocks and rather unique K-rich calc-alkaline, shoshonitic and lamproitic volcanics, which were produced during the Neogene. Characteristic mineral compositions of biotites, pyroxenes, garnets, and volcanic glass fragments as well as typical zoning patterns of plagioclases allow for a pretty precise allocation of raw material used.