

# Neutron imaging for archaeometry

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## Abstract

Both archaeologists and conservators can benefit from the investigations of Cultural Heritage objects carried out by neutrons. Inner morphology, dating, provenance, manufacturing techniques, workshop affinities, as well as fake identification, conservation or preservation are usually the main questions. Neutrons are perfect tools of archaeometrical studies due to their deep penetration capability into the matter, and the non-destructive and non-invasive nature of the probes. Various kinds of neutron techniques can be used to explore the compositional or structural features of the objects. Among them classical neutron imaging techniques (tomography/radiography) play an important role in the exploration of the deep bulk topology or inside-content of artefacts. Moreover, the parallel application of neutron and X-ray imaging, as two complementary techniques, is very fruitful. These two methods are available at Budapest Neutron Centre, and their relevance to the investigation of Cultural Heritage objects will be presented through case studies.