

# SHARE: Synchrotron x-ray analysis of Heritage Accessible to and Reusable by Everyone



Synchrotron X-ray analytical techniques are increasingly used in heritage science to characterise the composition of ancient and artistic objects, but access to the data collected during experiments remains very limited. The SHARE project will set up an easily searchable database that will provide information on art objects and model samples analysed through the Historical Materials Block Allocation Group (BAG), providing easy access to raw and processed data, and metadata.



**PaNOSC**  
Photon and Neutron Science



**SSHOC**  
Social Sciences and Humanities

## Challenge

Access to synchrotron x-ray techniques remains limited to expert users through a competitive selection process. Moreover, synchrotron data is still largely inaccessible and difficult to reuse in line with FAIR data principles.

## Solution

SHARE will develop an easily searchable database of over 1,600 datasets from synchrotron analysis on art objects and model samples, collected and analysed since 2020 through the Historical Materials BAG. This database will provide easy access to raw and processed data, and metadata.

## Scientific Impact

By preserving and making heritage data reusable, the project ensures that researchers from the global heritage science community can continue to study and safeguard cultural treasures.

## Partners

ESRF, Laboratoire de Photophysique et Photochimie Supramoléculaires et Macromoléculaires - CNRS, CNR-Istituto di Scienze e Tecnologia Chimiche "Giulio Natta", Rijksmuseum