

The lifecycle of 3D Data in Cultural Heritage

WEBINAR SERIES

22 and 30 April 2026

14.30 - 16h CEST

Publishing 3D Data

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Photoconsortium



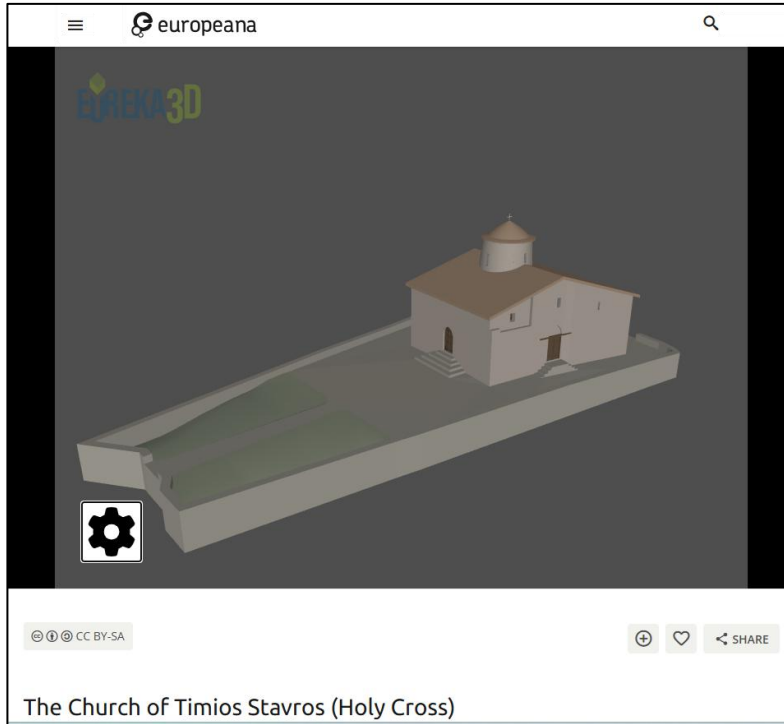
EUREKA3D^{XR} European Union's REKconstructed content
in 3D to produce XR experiences



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Overview of this presentation

- Introduction
 - About Photoconsortium
 - Publishing 3D data: a new frontier
- Use and reuse of 3D collections
- Providing access
 - The common European data space for cultural heritage, opportunities
 - Exchange of data: EDM
- Supporting the process
 - Aggregation
 - Discovering collections
 - Promoting collections



Introduction

PHOTOCONSORTIUM International Consortium for Photographic Heritage

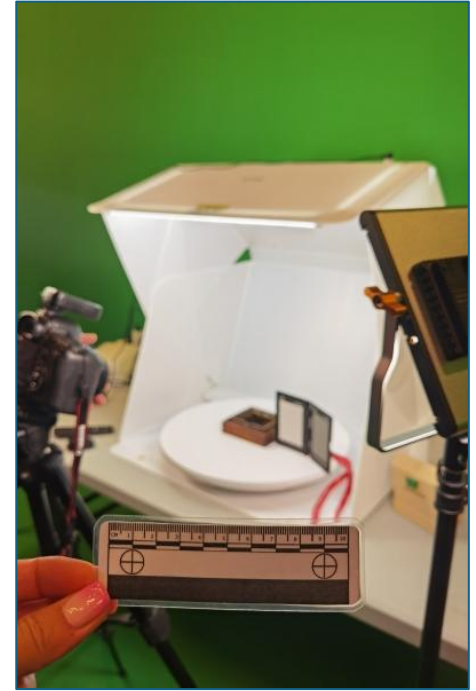
- Founded in 2014
- Spin off of «excellent» EC project Europeana Photography
- Since 2016 accredited aggregator of Europeana
- Thematic expert hub about (photographic) digital cultural heritage
- Coordinator of EUreka3D initiative
- Partner of common European data space for cultural heritage



Non for profit association devoted to the promotion and enhancement of the culture of photography and photographic heritage, and committed in the areas of digital cultural heritage, access and reuse of cultural content, citizens' engagement and education.

Publishing 3D data: a new frontier

- All CHIs started their digitisation journey with collections in 2D = mass of cultural data
- EC Recommendation to Member States 2021: digitise in 3D sites, monuments and collections and publish them in the common European data space for cultural heritage
- We know that 3D digitisation poses technical challenges in terms of:
 - Project planning, considering its complexity
 - Ensuring high quality of model
 - Documenting the digitisation process
 - Safe storage and sharing
- But what do we do with the 3D model once it is ready?





Use and reuse of 3D collections

Use and reuse of 3D collections 1/3

3D digital objects provide more detail, scale and possibilities for **in depth interaction** than 2D equivalents. This has various impacts, but most of all 3D experiences can provide more immersive ways of exploring and researching cultural heritage content, and engaging visitors to cultural sites and institutions.

3D objects are useful resources in **learning, education and research**, in exploring, preserving and monitoring heritage sites and monuments, and in helping reconstruct lost heritage and its evolution in time.

If the geometric aspect of the object is also accompanied with records of the stories of the cultures and communities that the object represents, we achieve a holistic approach that enables the new concept of **Memory Twin**.

Use and reuse of 3D collections 2/3



3D models of museum objects, monuments and sites can be reused in Virtual Reality (VR) and Mixed / Extended Reality (MR, XR) or **Metaverse experiences**, such as virtual tours or remote training, and in Augmented Reality (AR) applications for education, tourism and city / museum tours.

In addition, from the 3D models it is possible to produce printed models (rapid prototyping), useful for children engagement, artefact handling and teaching, sensory and accessibility experiences to be offered to impaired visitors, and other creative reuses leveraging **3D printing**.

Use and reuse of 3D collections 3/3

3D digitisation allows for detailed analysis and **monitoring** of monuments and sites and of cultural heritage objects, either indoor, outdoor or underwater, including measuring, observing fine details not readily visible to the naked eye or in simple 2D recording, comparing the details of related objects of similar type, monitoring the impact of specific factors on objects over time (such as wind, pollution, erosion, visitor traffic).

Finally, the 3D scanning of objects is important in the **fight against illicit trafficking of cultural goods**: the presence of 3D models in the databases of stolen works used by the police and customs forces allows for a gain in speed and efficiency in the in-situ identification of these objects.



Providing access

Make users discover our collections

The various stakeholders and categories of re-users for the 3D models may have different needs and requirements; yet the very starting point to enable use and reuse of the 3D models is **access and discoverability**.

Next to publishing and disseminating the collections on the Institution's website, Europeana, now evolved into the common European data space for cultural heritage, is a pan-european **discovery platform** that offers opportunities to share and link datasets about 3D cultural heritage to a wider audience.

WELCOME TO THE

common European data space for cultural heritage

Bringing cultural heritage collections together

CONTRIBUTE YOUR COLLECTIONS >

BROUGHT TO YOU BY



Feedback

Visit the landing page: <https://www.dataspace-culturalheritage.eu/>

Discover Europe's digital cultural heritage

Search, save and share art, books, films and music
from thousands of cultural institutions

🔍 Search 60+ million items



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Start searching collections: <https://www.europeana.eu/>



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www.digitalmeetsculture.net

Opportunities

Participation in the common European data space for cultural heritage is valuable:

- Sharing your cultural collections in the EU flagship initiative for digital cultural heritage
- In good company with 4,000 content providers from all over Europe (museums, libraries, archives, galleries...)
- Reaching out to 6,000 members associated to the Europeana Network Association
- Promoting visibility of your institution/collections via editorials such as blogs and galleries
- Fostering reuse of collections and datasets in stakeholder communities
- Being part of the most advanced community promoting and driving the digital transformation of the cultural heritage sector (with EU projects, capacity building and learning, top-notch technologies, AI developments, networking...)

Exchange of data: EDM

The publication of cultural data in Europeana happens by the use of the EDM Europeana Data Model, that includes metadata and links pointing to digital objects published online.

- EDM is a metadata schema that provides information related to:
 - The cultural heritage object as such (edm:ProvidedCHO)
 - Its digital representation (edm:WebResource)
 - Technical aspects linked to the aggregation process (ore:Aggregation).
- Recently, the EDM has been extended to accommodate more information relating to a better representation of 3D cultural collections.
- Photoconsortium in its role of accredited aggregator participated and provided advice in the complex discussions taking place in the Europeana 3D Working Group, Europeana Data Quality Committee and others.

Most relevant EDM extensions (April 2026)

- **Viewer:** the 3D models must be visible directly in Europeana platform, by the use of an oEmbed compliant viewer, like the EUreka3D Viewer.
- **Direct download:** in the light of facilitating access and reuse of 3D models, a direct download link to the files of the model (e.g. GLB, OBJ, etc) can be provided.
- **Intended usage:** indicating what the 3D model is mainly meant for (e.g. preservation, documentation, education, reuse in tourism or gaming etc...). This is represented in the new edm:intendedUsage field, supported with a controlled vocabulary.
- **Paradata:** to provide insights into a 3D model's authenticity, usage conditions and copyright, and technical aspects linked to its creation process, e.g. new fields edm:polygonCount and edm:vertexCount. Content providers can also provide direct links to paradata reports and other detailed documentation.



Supporting the process

Photoconsortium, accredited aggregator

Aggregators operate to help cultural heritage institutions to take part in the common European data space for cultural heritage.

In specific Photoconsortium is best positioned to:

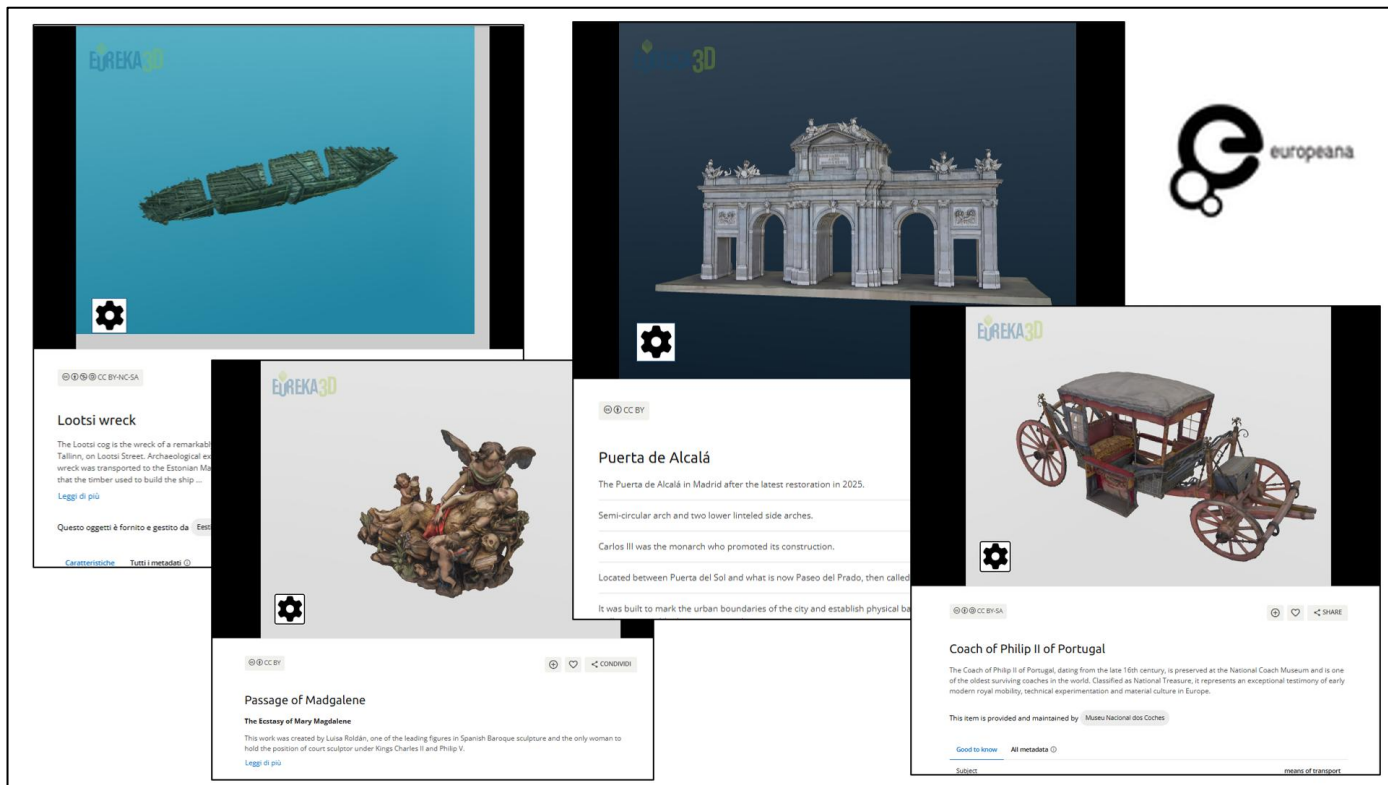
- Support the creation of high quality 2D and 3D cultural collections via individual advice, technical support, capacity building resources and one-to-one assistance.
- Help with 3D storage and viewer challenges, via the EUreka3D Data Hub.
- Enable mapping of content provider's metadata to the Europeana Data Model.
- Provide quality and compliance checks on the dataset, to meet the requirements of EDM and the Europeana Publishing Framework.
- Foster collection's visibility by creating and publishing editorials, blogs, galleries and other types of publications.

Twint! Campaign 2026

The EUreka3D Data Hub was chosen by several Member States in the context of the EC Twint! campaign, which invited Member States to publish in Europeana one or more 3D models, representative of local heritage.

12 May: Ministerial celebration in Brussels

27-28 May: HackIt!4EU event in Limassol



Discover them all: <https://eureka3d.eu/twinit/>

Discovering collections in Europeana

5,538 RESULTS WITHIN ORGANISATION UNESCO Chair on Digital Cultural Heritage X

UNESCO Chair on Digital Cultural Heritage

LEARN MORE WEBSITE SHARE



Castle of Paphos in 3D HBIM

Digital Heritage Research Lab
Cyprus University of Technology

UNESCO Chair on Digital Cultural Heritage



Englestra of St Neophytos - 3D Digitisation

Neophytos of Cyprus

UNESCO Chair on Digital Cultural Heritage



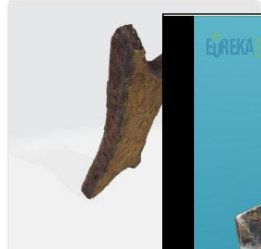
The Church of Timios Stavros (Holy Cross)

UNESCO Chair on Digital Cultural Heritage



SHM 17946:0097 :: Sculpture, Figurine

The Museum of Mediterranean and Near Eastern Antiquities

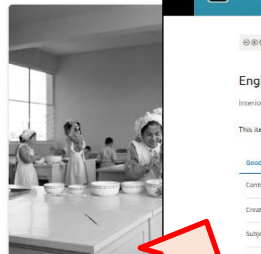


MM Acc 0072 :: Metal Ingot

The Museum of Mediterranean and Near Eastern Antiquities



Ο Αρχιεπίσκοπος Ηλίας επισκέπτεται την ΤΟΥΡΑΤΗ



UNESCO Chair on Digital Cultural Heritage

Englestra of St Neophytos - 3D Digitisation

Interior of the Englestra of St Neophytos, Paphos, Cyprus. 2025/05/13

This item is provided and maintained by UNESCO Chair on Digital Cultural Heritage

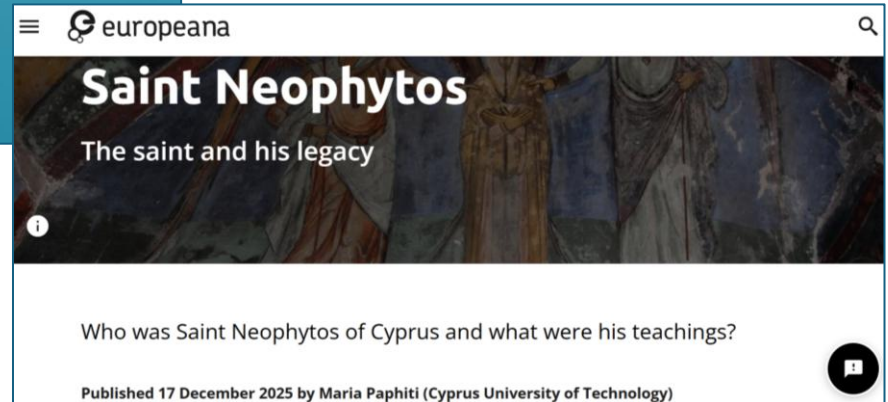
Good to know All metadata Location

Contributors	Theodoros Apevlis
Creator	Neophytos of Cyprus
Subject	heritages (religious structures)
Type of item	heritages (religious structures)
Medium	limestone : plaster (composite coating) : paint (coating) : Paint : Plaster

View this item in another language



Promoting collections



- Collections published and maintained online
- Stories about the object, collection etc
- Thematic galleries
- Case studies, educational resources etc

Thank you for your attention!

Valentina Bachi
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www.photoconsortium.net

International Consortium for
Photographic Heritage

**PHOTO
CONSORTIUM**



International association to promote and
enhance photographic heritage

A novel access point to photographic culture

A centre of expertise and knowledge on digitisation,
digital archives, and metadata standards

A network for the research on the use and reuse
of photography within virtual exhibitions, virtual
museums, virtual reality applications

An aggregator for photography to Europeana

A travelling international exhibition "All Our
Yesterdays (1839 - 1939): Life Through the Lens
of Europe's First Photographers"



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