

CUNE-IIIF-ORM

Towards an Internationally Interoperable Corpus of Cuneiform Tablets

DURATION
01/09/2021 - 31/08/2026

BUDGET
957.037 €

PROJECT DESCRIPTION

CUNE-IIIF-ORM: Towards an Internationally Image Interoperable Corpus of Cuneiform Tablets brings together an **interdisciplinary consortium** of philologists, museum curators, digital humanities and heritage experts, digitisation specialists and computer scientists to open up the **access to diverse federal cultural, scientific and historical heritage** collections of the Royal Museums of Art and History (RMAH) for **scientific exploitation and social valorisation**.

By applying methodological approaches from diverse humanities, sciences and engineering disciplines, the multidisciplinary CUNE-IIIF-ORM team will **1) sustainably integrate the International Image Interoperability Framework (IIIF)** into the RMAH's data infrastructure, **2) open up the RMAH collection of Old Babylonian clay tablets for scientific exploitation through the linking, enriching and semi-automatic analysis** with other digitised Cuneiform Tablets from internationally renowned museums worldwide, **3) publish the International CUNE-IIIF-ORM Old Babylonian Documentary Text Corpus, as a traditional scientific publication in *Akkadica*** within an accompanying **digital scholarly edition**, and **4) valorise the International CUNE-IIIF-ORM Old Babylonian Documentary Text Corpus as a virtual exhibition, linked with a traveling physical "pop-up" exhibition** for a range of non-scientific audiences.

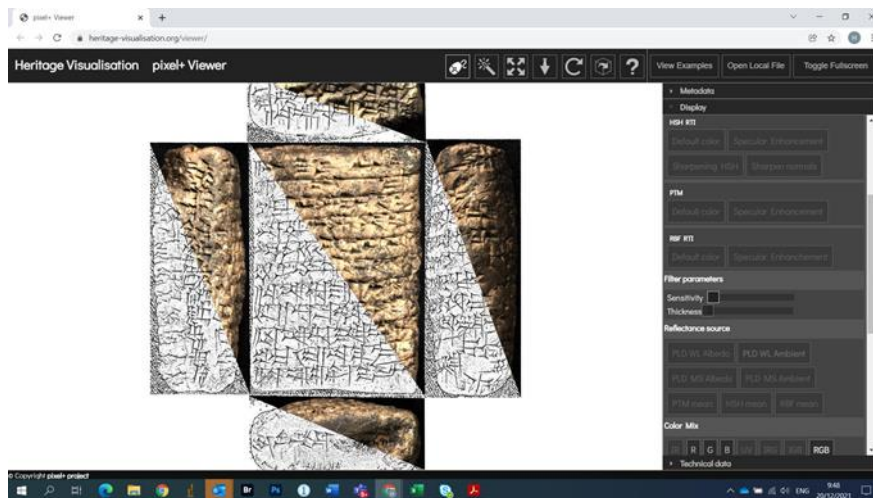


Image: Old Babylonian cuneiform tablet (letter) of the RMAH visualized in the pixel+ viewer with two different enhancement shaders ([O.4988](#))

The project will start from a sub-collection of ca. 65 clay tablets from the Old Babylonian (OB) Period (ca. 2000-1500 BCE) inscribed in the ancient language Akkadian using cuneiform script. Originating from Mesopotamia, approximately present day Iraq and Syria. The data about selected tablets has been identified in the Museums' collections infrastructure (e.g. on the basis of the [Inventory Number](#)). It will include **multilingual descriptive metadata** (NL, FR, EN) (from MuseumPlus) and the **digitized objects** in the Museums' Digital Asset Management System (DAMS) including rights and licensing information. Central stand existing digital visual interactive data of these tablets, so-called **2D+** or **Multi-Light Reflectance** scans. They were made as part of the Greater Mesopotamia: Reconstruction of its Environment and History project, 2012-2017, examples: [Pixel+ Heritage Visualisation Viewer](#). These digitized objects will be used to prepare multi-layered datasets (KU Leuven) to be published (RMAH/UGent) using the [International Image Interoperability Framework](#) (IIIF) and used for OCR and machine learning experiments (UGent).

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The **International Image Interoperability Framework (IIIF)**, led by a growing community of the world's leading cultural heritage institutions provides an open framework and standardised method for providing access (zoom in etc), to publish image-based resources, to be viewed, cited, and annotated by any IIIF-compatible application. CUNE-IIIF-ORM would provide the opportunity **to sustainably embed IIIF into the KMKG/MRAH's data infrastructures and digitisation workflows**. This work will draw on expertise from the [IIIF Museums Community](#).

From a **scientific perspective**, the Old Babylonian texts inscribed on clay tablets are widely dispersed in museums (and private collections) across the world. The implementation of IIIF provides the opportunity to digitally-reunite these dispersed museum objects into a for both **scientific exploitation** using advanced digital humanities methods. This sub-corpus will be further enriched and contextualised with cuneiform tablets from other Old Babylonian collections worldwide (e.g. Cuneiform Digital Library Initiative ([CDLI](#)), [Ashmolean Museum](#), [British Museum](#), [Louvre](#), [Penn Museum Babylonian Section](#), [Pergamonmuseum](#), [Yale University Babylonian Collection](#) etc.) on the basis of **prosopographical research and literature search** (UGent), when needed, new imaging will be done by KU Leuven.

For the **emerging field of Digital Assyriology**, a number of research questions are pertinent: **a) IIIF**: How can tablets scattered across museums and collections worldwide and thus sometimes difficult to access for study be made available to the scientific community in an efficient and high-quality way?, **b) OCR**: How can we contribute to a more efficient way in transliterating and translating cuneiform tablets in order to enable Assyriologists to process more relevant data in their research?, **c) NLP**: Old Babylonian documentary texts record the administrative procedures of everyday life in Babylonia 4000 years ago. How can we process these data in a meaningful way?

With respect to **scientific exploitation activities**, the CUNE-IIIF-ORM team will publish a number of academic articles, the Doctoral Thesis of the CUNE-IIIF-ORM PhD Student and give presentations at relevant conferences. Two specific scientific events will be organised during the project: a **workshop/hackathon** aimed at the exploitation of the data created in the project and an **interdisciplinary scientific conference**. **Conference proceedings or a special issue of an academic journal** will be produced as a result of the conference.

CUNE-IIIF-ORM's core **social valorisation activity** will be to create a **IIIF Virtual Exhibition**, based on a selection of the best documented tablets. Such tablets which until now are scattered among museum collections worldwide will be brought together in order to (re)contextualize them in their original historical setting. This will enable us to bring the stories of everyday life in Babylonia 4000 years ago behind these otherwise isolated artefacts alive.

The expected outcomes of CUNE-IIIF-ORM are outlined as follows:

Outcome 1: Sustainable integration of the International Image Interoperability Framework (IIIF) into the RMAH's data infrastructure.

Outcome 2: RMAH collection of Old Babylonian clay tablets are published as IIIF

Outcome 3: International CUNE-IIIF-ORM Old Babylonian Documentary Text Corpus

Outcome 4: An International CUNE-IIIF-ORM Old Babylonian Documentary Text Corpus as a virtual exhibition, linked with a traveling physical "pop-up" exhibition for a range of non-scientific audiences.

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LINKS

<https://www.kmg-mrah.be/en/scientific-research/cune-iiif-orm>