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## **eScripta: A New Digital Platform for the Study of Historical Texts and Writing**

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# eScripta: A New Digital Platform for Historical Texts and Writing

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## What is Scripta-PSL?

*Scripta-PSL: The History and Practices of Writing* aims at integrating the fundamental sciences that deal with written artefacts (**palaeography, codicology, epigraphy, history of the book, etc.**), with other disciplines in the humanities and social sciences (**linguistics, history, anthropology, etc.**), together with **digital and computational humanities**, around the **study of writing** throughout the **whole of human history**. Languages and writing-systems include:

- Ancient Aramaic
- Medieval Armenian
- Elamite
- Middle Iranian
- Old Javanese
- Meroitic
- Pali
- Sogdian
- Classical Tamil
- Tocharian
- Ugaritic

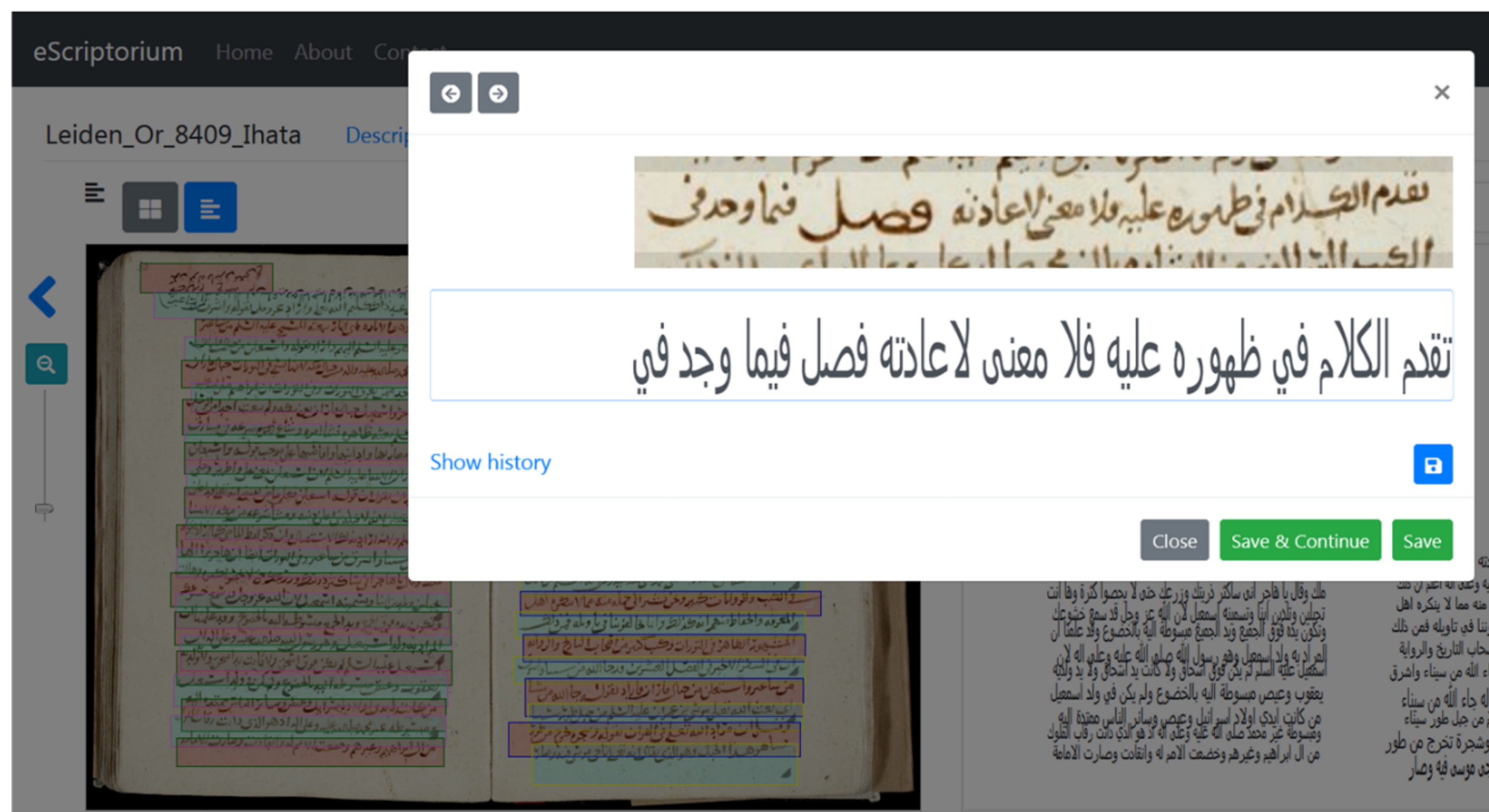
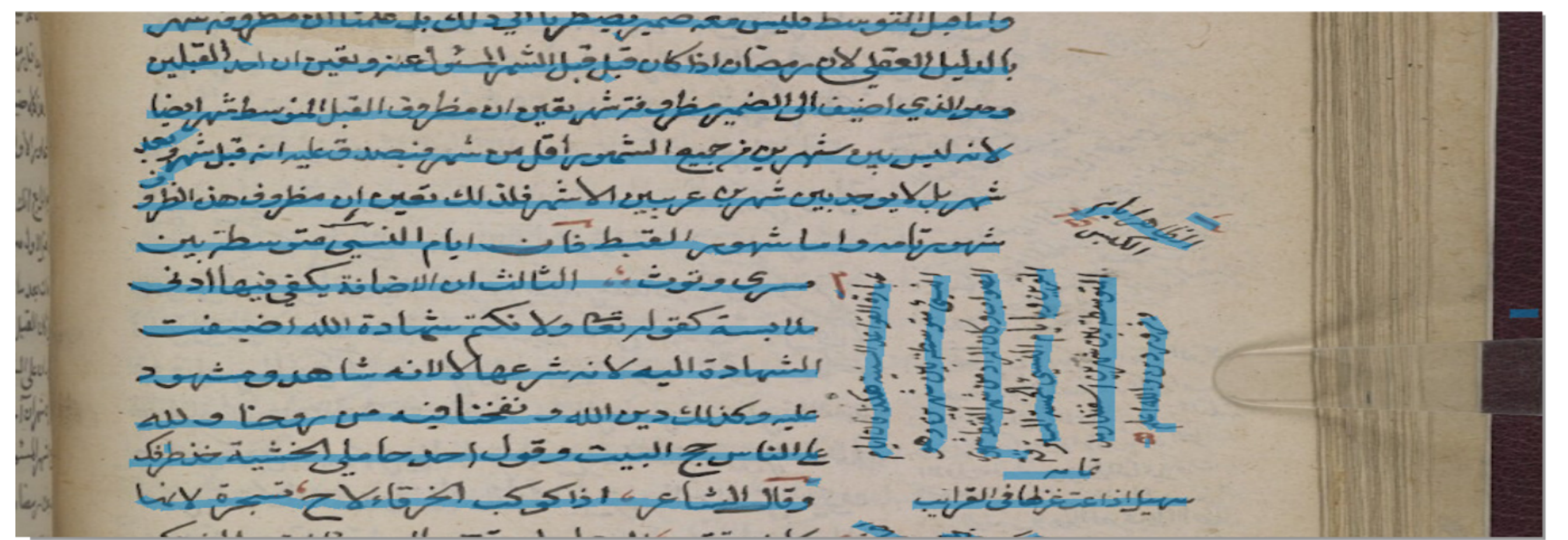
## What is eScripta?

eScripta is the **Digital Humanities component of the Scripta project**, which is developing a workflow for scholars of texts and manuscripts across **all the world's writing-systems**. Among its goals is to **reuse** components already developed in or associated with PSL and elsewhere, including **Kraken, Archetype, Pyrrha** and **TEI Publisher**. It must allow for LTR, RTL, top to bottom LTR, top to bottom RTL and beyond.



## Line Detection with CNNs

Automatic **line detection** of complex layouts is provided using **Convolutional Neural Networks**, and Ground Truth training data can be generated using the interface or separately. Straightforward layouts can be managed by a simpler system which does not require training.

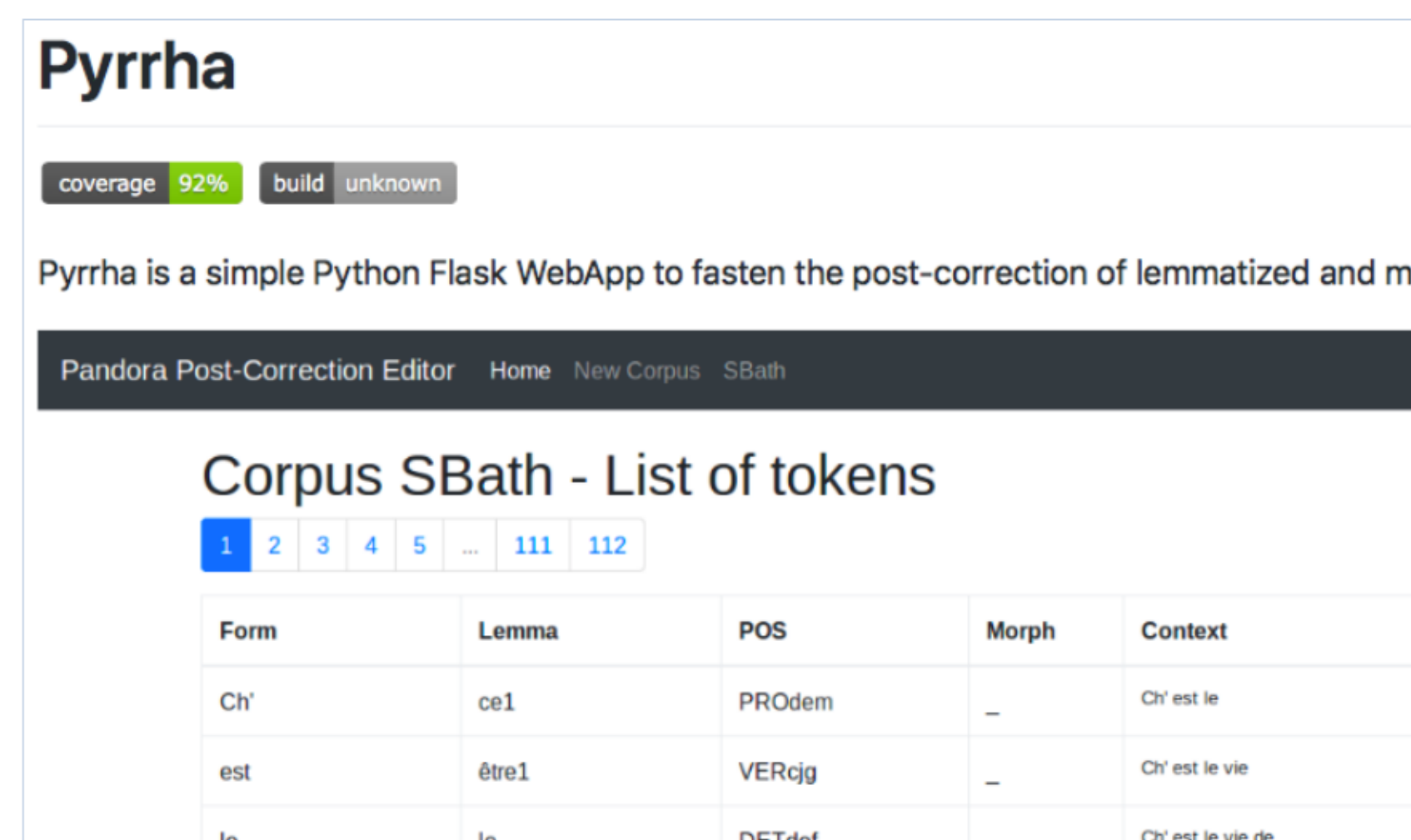
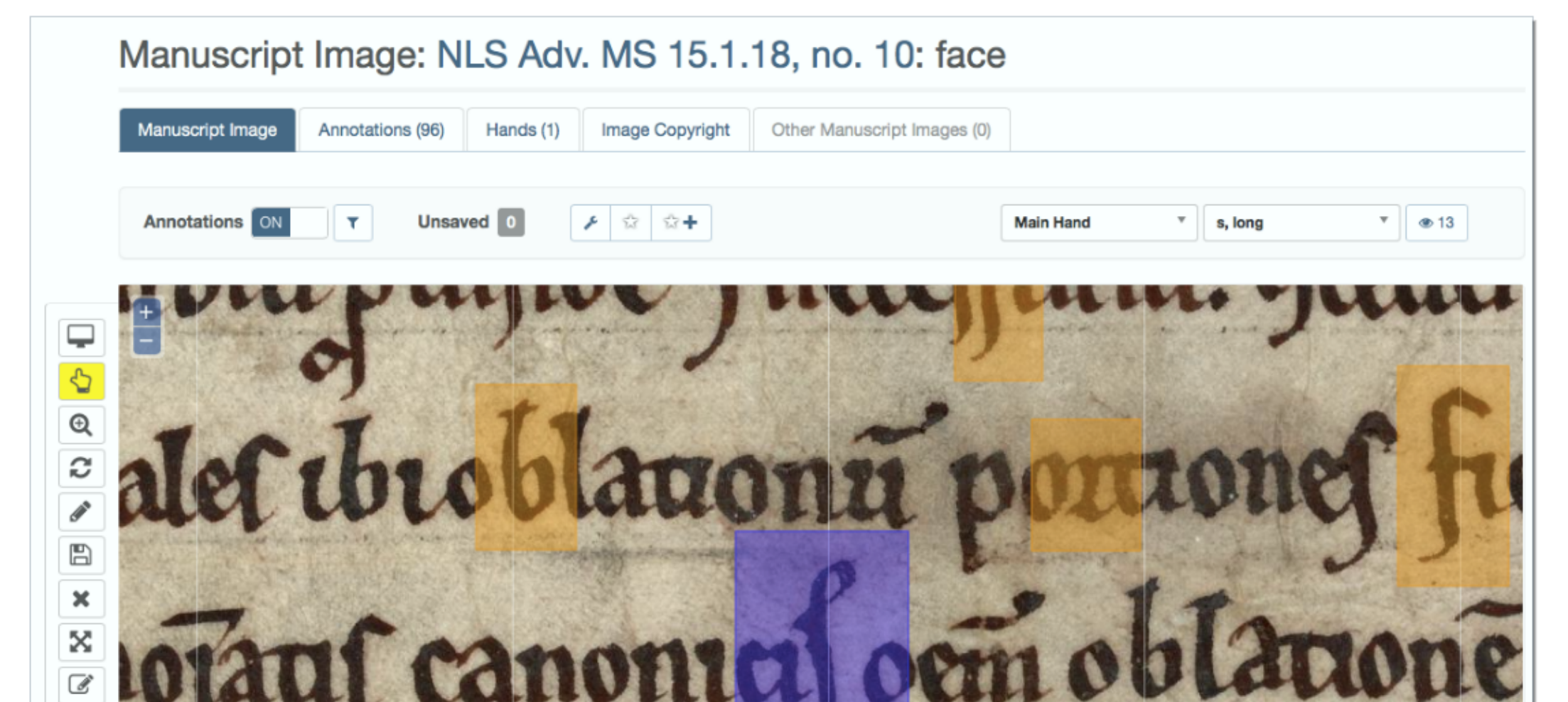


## OCR/HTR with Kraken

Kraken is used for handwritten **text recognition (HTR)** to allow the automatic analysis and transcription of manuscripts as well as printed books. It is designed to accommodate **multi-lingual documents and non-Latin scripts** including non-alphabetic writing-systems and RTL, top to bottom, bottom to top and bidirectional writing. Manual transcription can be entered directly or imported, as a final text or for Ground Truth, and trained models can be imported or exported for sharing and reuse.

## Deep Annotations

The immediate next step is '**deep**' **structured annotations** of images and text. Based on the **Archetype model**, these are not unstructured labels but are instead linked directly **structured project-specific models** of the objects being annotated. This enables scholars to perform powerful **searching**, such as queries for all graphs with ascenders.

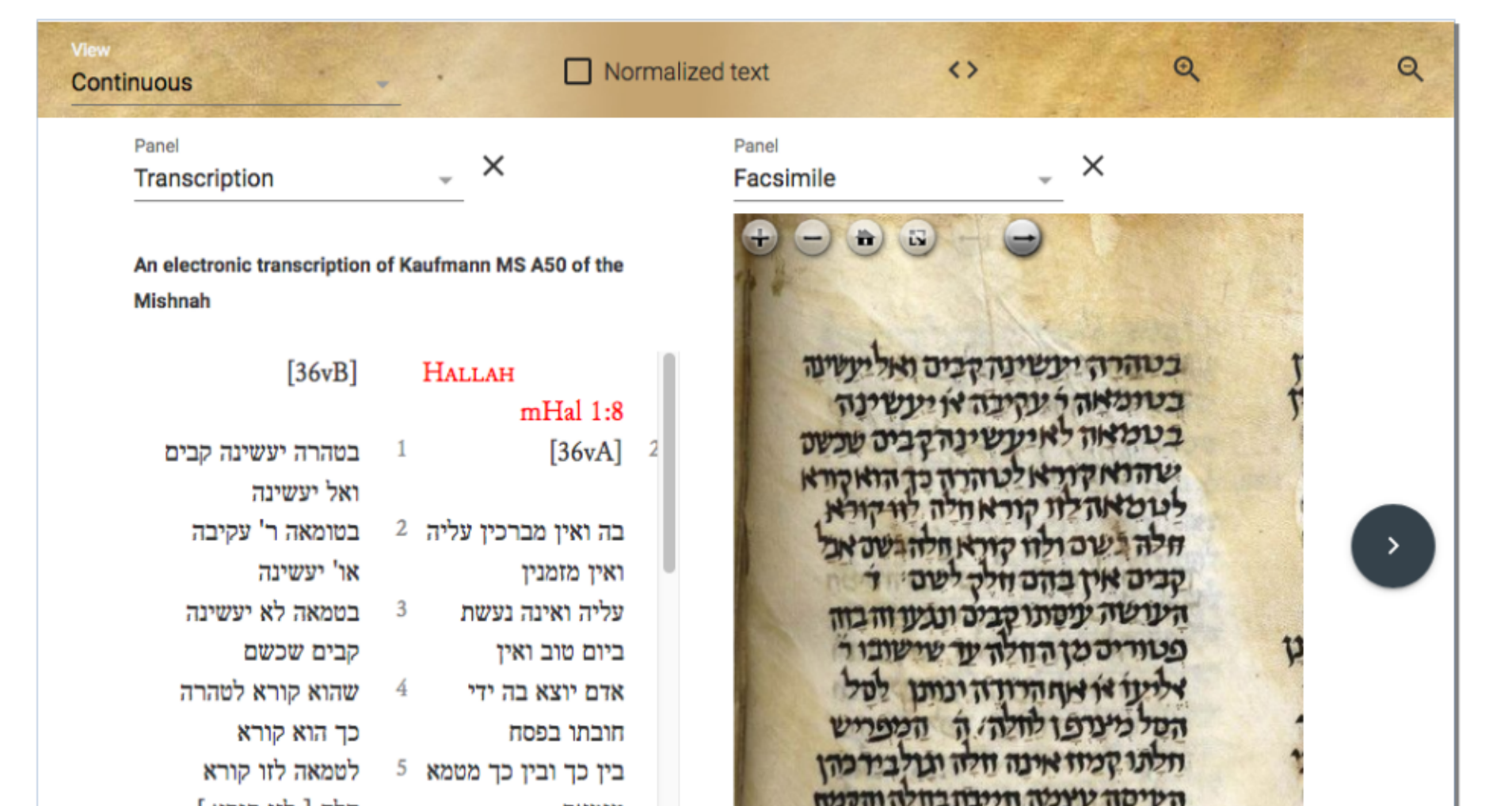


## Post-Correction

Correcting Linguistic Markup with Pyrrha

## Publication

Presenting Texts with TEI Publisher



For updates, visit our blog at [escripta.hypotheses.org](https://escripta.hypotheses.org), or see the code at [gitlab.inria.fr/scripta](https://gitlab.inria.fr/scripta) (MIT Licence)

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