

Scaling the Detection of Historiolae in the Papyri Graecae Magicae: A Corpus Annotation Project Using LLMs and Model Context Protocols

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This project develops a reproducible workflow for identifying and tagging *historiolae*, brief narrative precedents deployed to authorize ritual outcomes, across the *Papyri Graecae Magicae* (PGM). The PGM is a corpus of Greek magical papyri from Roman Egypt, dating primarily from the 2nd to 5th centuries CE. It reflects the cross-cultural ritual practices of the eastern Mediterranean. *Historiolae* occupy an ambiguous textual and translational category: they are neither simple divine names nor full mythological narratives, and their boundaries blur with cosmological invocations, epithets, and natural analogies. This ambiguity is compounded by the fragmentary, multilingual nature of the corpus, where Greek syntax carries Egyptian cosmology and Jewish precedent. The project asks whether LLMs can be trained to navigate this interpretive uncertainty and what their behavior reveals about the limits of computational interpretation in culturally hybrid, ritually encoded texts.

A manual analysis of a dense *historiola* cluster in *Sefer ha-Razim*'s sixth firmament established clear parameters of *historiolae*: narrative precedent versus divine names, cosmological hierarchy, epithets, or natural analogies. These parameters are used as an anthology for a manually tagged sample of PGM spells, creating a training set. This manual phase exposes the interpretive difficulty inherent in the task: a single phrase may function as *historiola* in one ritual context and as cosmological invocation in another. Translation itself becomes an interpretive act - does "as Helios bound the serpent" authorize through precedent, or does it invoke cosmic order? It raises the question whether LLMs, guided by structured prompts, can learn to make such distinctions, or whether they default to surface-level pattern matching that flattens the ritual cultural logic embedded in the text.

The workflow has three phases. First, the digitized PGM corpus (available in HTML) is converted into a structured CSV format, which aligns with EpiDoc standards, ensuring compatibility with the linked data standards of Classics and papyrology and enabling systematic annotation. Second, a small manually tagged sample of PGM spells provides the ground truth for identifying *historiolae* according to the working definition (see Appendix: Decision Tree for *Historiola* Identification). Third, Model Context Protocols (MCPs) guide the LLM through iterative tagging. This dataset will be publicly accessible for reuse by scholars working on comparative magic, late antique religion, and computational text analysis. The project also tests the hypothesis that theurgic operations privilege cosmological invocation, whereas applied operations (those that require visible, material outcomes) favor narrative precedent.

The project will track how the model handles interpretive ambiguity: does it over-identify narrative elements in passages that function cosmologically? Does it under-tag implicit precedents that lack explicit agents or verbs of action? These questions reflect a broader

challenge in AI-assisted interpretation of ancient texts: models trained on modern linguistic corpora may struggle with the compressed, allusive, and culturally layered syntax of ritual language. By analyzing error patterns and refining prompts accordingly, the project will assess whether prompt engineering can guide the model toward more contextually informed readings or whether certain categories of ambiguity resist computational resolution.

Selected Readings

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Appendix: Decision Tree for Historiola Identification

