Messy Myths: Applying Linked Open Data to Study Mythological Narratives

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The aim of this paper is to present an example of applying DH tools to a topic that includes complexities on various levels. The project in question is devoted to the figure of Zeus, the head of the Greek pantheon and deity connected with thunder, in comparison with gods of other cultures (such as the Hittite, Ugaritic or Mesopotamian traditions) and other media alongside the text, such as art. The work analyses different versions of material produced in different languages and on different media. This mess of mythological sources requires a suitable tool that enables one to look past the superficial differences of these circumstances. We use a digital approach to the framework of hylistics [1] to overcome those difficulties and provide a reflection on the new angles that the introduction of such tools brings to a 'traditional' research perspective.

To treat the figure of Zeus in this cross-linguistic and cross-material perspective, this project applies the methods from hylistics, a recent theoretical framework developed in Zgoll [1]. Zgoll's work is devoted to the definition of what a 'myth' is and a suggestion of a standardised way to work with myths in an interdisciplinary and multimedial fashion. The quest for the nature of myth leads Zgoll to note that a myth is not a specific type of text, but a specific type of content, for which he uses the terminology 'narrative material' or Stoff (Greek 'ὕλη'). Consequently, the right tool for treating myths must be one dealing with narrative material, for which the archaising neologism 'hylistics' is coined.

As a first step, the narrative material has to be extracted from the medium. This is done by converting all actions present within the material into 'hylemes', or minimal units of action made up of a subject, a predicate and an object. A linguistic representation might then be e.g. 'Zeus kills Erechtheus'. Any narrative material is made up of _sequences_ of such hylemes, ordered according to the logical chronology of the material, not the source. These sequences then form the basis for further analysis, and are in themselves a standardised form in which a myth can be displayed regardless of the medium or language of the source. The application of hylistics makes it possible to compare sources that treat a myth in different languages, and even to add artistic material such as vase painting: all of these sources can be translated into a hylemic structure. The decisive step in the analysis of the material is the comparison of hyleme sequences, which allows seeing agreement between them that might have been obscured in the original form.

The high level of structuring employed within the hylistic framework naturally invites a digital approach to the creation, storage, and manipulation of the converted material. A comparable project and database, MANTO – a digital dataset of Greek myth, has a similar goal and has collected a lot of linked data from the textual material.[2] However, in their approach, they took the practical decision to eliminate some crucial aspects of Greek myth that are relevant to the project on Zeus with its focus on the narrative. Most importantly,

MANTO disregards the details of individual myths and passages, reducing the sequence of events to one statement describing it. In addition to that, in the MANTO dataset, it is not possible to compare the treatment of the same story in different sources, as they are registered as independent instances, only linked by the shared entities, but not by the plot. These qualities should not be viewed as shortcomings of the project, but they make an additional level of considerations necessary to use its data for a hylistics-based study.

This paper will explore the possibilities and limitations of adopting a system that would allow building on the previous work, such as that of the MANTO project, but at the same time accommodate the needs of the project at hand. In particular, it will comment on the potential ways to reconcile the need for recording a structured narrative, which is an ordered sequence of units of action, with the LOD model. Additionally, we will reflect on the subjectivity of the mythological analysis and the possibility of making it explicit within the workflow. Ultimately, the question of subjectivity lies at the heart of the attempts to fit the flexible interpretation of myth into a rigid data format, and its importance grows as the research proceeds. While the decisions made at the first stage of encoding the material already present a level of subjectivity, this subjectivity can be accounted for by keeping track of decisions and having a consistently documented approach to annotation. The situation is different at the next stage, where the researcher starts comparing hyleme sequences and drawing conclusions about their similarity. We will introduce a tentative similarity metric to tackle this issue, as well as a vision for a digital research environment that would support further hylistic studies into mythological material.

[1] Zgoll, Christian. Tractatus Mythologicus. MythoS. Berlin; Boston: de Gruyter, 2019.
[2] https://www.manto-myth.org/manto