

Fragments of Archaic Lyric Poems Survived in the Early Editions and the Widespread Manuscripts during the Italian Renaissance¹

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ABSTRACT: This article aims at organizing the information about the first printed edition (*Editio Princeps*) of works of various scholars, including fragments of ancient lyric poets. The great number of works and fragments, along with the multiplicity of their interconnections necessitated the creation of a digital environment, in which all the available information has been recorded. The selected data structure is a software ontology created and manipulated in the digital platform OWL Protégé. Protégé platform is equipped with valuable additional tools, such as the graphical application Ontograf and the SPARQL queries environment. In SPARQL one can write and run various sophisticated search queries mining the various parts of information concerning fragments, works, scholars, and ancient lyrical poets reappeared in the Renaissance. The created ontology is open to researchers either for consulting or for updating and editing.

KEYWORDS: Software ontology, SPARQL queries, *Editio princeps*, Greek lyric poetry, Italian Renaissance

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Anna Griva

annagriva@hotmail.com

University of the Peloponnese

Department of Philology

Kalamata, Greece

Markos Dendrinou

mdendr@gmail.com

ORCID: 0000-0001-5675-3069

University of West Attica

Department of Archival, Library

and Information Studies

Egaleo, Athens, Greece

1 Introduction

During Humanism and the Renaissance, poetry held a prominent position in shaping both theoretical reflection and literature. In particular, the first

1. Subtitle: A Detailed Recording and Advanced Searches in the Frame of a Software Ontology

appearances of poetic texts in Italy triggered, to a greater or lesser degree, the adoption of a new aspect of classical literature. Therefore, those modern researchers working on the reception of ancient literature during Humanism and the Renaissance need, at times, in order to confirm the existence of real influences of Antiquity on the Renaissance, to conduct research on the sources that were available to humanists, theorists or writers, through manuscripts and first editions. This research is a prerequisite to being able to grasp the actual relationships of the texts and the channels or networks through which each effect took place.

Certainly, this research of manuscript and printed sources is a time-consuming task, and the researchers can never be sure that a source has not escaped their study, as they may be unaware of it (such as a version that they did not take into account or a text whose traces cannot be found, or a manuscript which circulated in certain scholarly circles). Besides, the specific areas of research, through studies carried out in larger or smaller libraries as well as in private collections, are in constant development. Therefore, despite the changes and discoveries, which sometimes overturn existing knowledge, it would be of great profit for the researchers to create a contemporary recording, with the help of digital tools, of the reappearance of significant texts of classical literature within the more widespread manuscripts as well as in their first printed edition (*Editio Princeps*).

Such a recording can be attained in the frame of digital databases and ontologies, in which various relationships between information items are added, thus facilitating information searches with different criteria each time. These structures are more or less accessible to researchers, so that it can be secured that they are open to any adequate enrichment, update, or editing according to the current discoveries. This approach merges the seemingly separate disciplines of humanities and digital technologies, which constitutes the so-called field of digital humanities.

In this study, we'll focus on the recording of the archaic lyrical fragments reappeared during Humanism and the Renaissance. The importance of the organization of these data in an effective software environment for philologists and historians of ideas is great, since archaic lyricism is the basis and the starting point of the long thread that constitutes European poetry and in general literature and the history of ideas; thus the investigation of the direct or indirect reception of antiquity in modern times appears as a critical node in the total network of cultural resources.

In Section 2 we'll give a general survey of the features of the software ontology, while in Section 3 we'll describe the ontology configuration for the

recording and multi-faceted search of the various literary data. In Section 4 information about the selected lyric poets and the editions used is given, while certain paths of further research are suggested.

2 The software ontology as a tool for exhaustive recording and customized searching

The ontology is an environment where one can define categories (called classes) of similar things (called individuals). The ontology is a hierarchical system of classes and subclasses. The innovative element of an ontology with respect to other data structures is the capacity given to the users to define any custom relation (called object property) between the individuals of the same or different classes, along with certain features (called data properties) of the individuals of a class of any type, such as strings of characters (text), extended text, notes including url links, numbers and dates. The ontologies are the evolutionary product of a series of various data structures, such as taxonomies, lexica, thesauri, and encyclopedias. Taxonomies are simple hierarchies, lexica and thesauri are structures with predefined relation types, such as synonyms, antonyms, and related terms, while encyclopedias are taxonomies enriched with the related-to connection between the lemmas.

For the creation of the ontology, the software “Protégé 4.3” (<https://protege.stanford.edu/>) was used². Web Protégé is an additional development environment of Protégé for the Web that makes it easy to create, upload, modify, and share ontologies for collaborative viewing and editing. Web Protégé fully supports the latest OWL 2 Web Ontology Language. The highly configurable user interface creates the perfect environment for beginners and experts alike. Collaboration features abound, including sharing and permissions, threaded notes and discussions, watches, and email notifications. RDF/XML, Turtle, OWL/XML, OBO, and other formats available for ontology upload and download³.

An exceptional feature of the OWL Protégé ontologies is the capability of applying inference mechanisms; reasoning engines can be activated and provide additional hierarchical relationships, apart from those initially defined.

Lastly, the most powerful feature of OWL Protégé is an effective search mechanism, SQL-like, which has adapted the basic SQL syntax into the

2. Protégé OWL Tutorial, accessed 28.10.2024.

3. Protégé, accessed 28.10.2024.

structure and the innovative elements of the ontologies. In this context, the user can develop sophisticated search commands through combining various classes, object properties, and data properties.

3 Analytical description of the Ancient Lyric Fragments Ontology – Examples of advanced searches

The configuration of our ontology (Figure 1) concerning the reappearance of the ancient lyric fragments in the various manuscripts and editions during Humanism and the Renaissance is as follows.

– Ontology classes

Class *Ancient_Author*

The individuals of this class are the ancient authors in whose works lyric fragments are located. The author is recorded through his name. Number of entries: 36.

Class *Fragment*

The individuals of this class are the fragments of the lyric poets. The fragment is recorded as: publisher name __ fragment number following the selected edition __ lyric poet's name. Number of entries: 350.

Class *Lyric_Poet*

The individuals of this class are the lyric poets. Number of entries: 25.

Class *Work*

The individuals of this class are works of the ancient authors, where the fragments are included. The work is recorded through its title. Number of entries: 56.

Total number of individuals (*Ancient_Author*, *Fragment*, *Lyric_Poet*, *Work*): 467.

– Ontology object properties

Object property *Fragment of*

In this relation the fragment is related to the lyric poet the fragment belongs.

Object property *Fragment in*

In this relation the fragment is related to the work where it is recorded.

Object property *Work of*

In this relation the work is related to the ancient author who has written the work, including one or more fragments.

– **Ontology data properties**

Data property *Editio Princeps*

This is a feature added to the work. It is the date of the first edition.

Data property *Description*

This is a feature added to the work. It is a text field including all the information about the first edition, such as place of publication, publisher, curator, translator, manuscript sources, as well as additional data, such as other early editions or widespread manuscripts which contributed to the reception of the fragments.

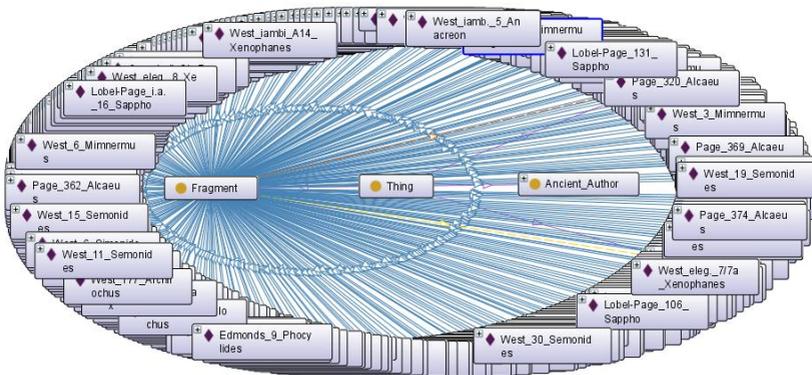


Figure 1. An overall graph of all the recorded data (Web Protégé, Ontograf)

After the exhaustive recording of the aforementioned data, the ontology is ready for advanced searches concerning any combination of the available data. The query language used was the SPARQL environment incorporated in the OWL Protégé platform. Query examples will be presented below. The list of the results is given in tabular form. Our lyric fragments ontology is uploaded in the web version of Protégé (Web Protégé), so that researchers can access the ontology/database and/or can contribute by adding additional data to this ontology.

Access will be made after the author's permission through the following procedure:

- Creation of an account by the interested researcher on the Web Protégé platform.

- Request for sharing permission by the interested researcher by contacting the email of the creator of the database (annagriva@hotmail.com).
- Grant of a sharing license by the creator of the database to the account created by the researcher.

After the sharing license is granted, the interested researchers will be able to view the ontology and/or “download” it locally to their computer and edit it in the way they want. To open and edit the file, they need to download the free open source OWL Protégé application version 4.3.

In case of a publication that uses elements of the ontology, reference should be made to the elements of the original author (Creative Commons policy - CC BY-NC-SA). Accordingly, the contribution of any researcher to the enrichment of the existing database will be mentioned by the original creator of the ontology therein. You can see below some of the informative windows of the ontology, along with the results in tabular form of some indicative queries.

In Figure 2, the data about a certain work (Stromateis of Clement of Alexandria) reappeared in the Renaissance is presented. Through query 1 we search for the fragments included in this work, and the results are given in tabular form (Figure 3).

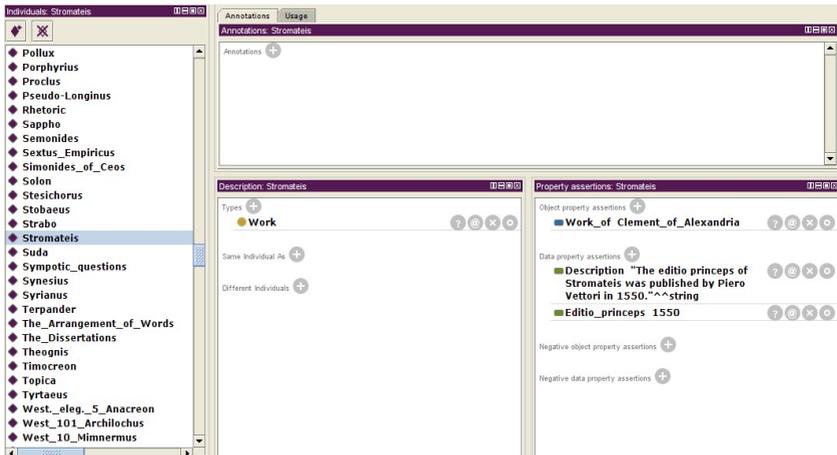


Figure 2. Recorded data about a certain work (*Stromateis* of Clement of Alexandria) as it reappeared in the Renaissance (*Editio Princeps*).

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PREFIX rdf: <http://www.w3.org/1999/02/22-rdf-syntax-ns#>
PREFIX owl: <http://www.w3.org/2002/07/owl#>
PREFIX xsd: <http://www.w3.org/2001/XMLSchema#>
PREFIX rdfs: <http://www.w3.org/2000/01/rdf-schema#>

PREFIX ns: <http://www.semanticweb.org/user/ontologies/2023/5/untitled-ontology-35#>
SELECT ?fragn
WHERE { ?fragn ns:Fragment_in ns:Stromateis }

```

fragn
West_110_Archilochus
Page_697_Terpander
Campbell_23_Bacchylides
West_16_Solon
Campbell_25_Bacchylides
West_jambi_B14_Xenophanes
West_127_Archilochus
Edmonds_15_Phocylides
West_6_Semonides
West_17_Solon
West_177_Archilochus

Figure 3. Syntax of the query-1: locate all the fragments included in *Stromateis*. List of results given in tabular form.

In Fig 4, we can see the identity of the work (Enchiridion de Metris) where a certain fragment (Lobel-Page_102_Sappho) is included, while in Figure 5 we can see all the information recorded about this work, such as its author, date, and place of the *Editio Princeps*.

Through the composite Query 2, we search for all the works including a fragment of a certain lyric poet (Mimnermus), and the results (fragment, work, date of *Editio Princeps*) are given in tabular form (Figure 6). Then we select one of the listed works (Geographica) in order to see in Figure 7 all the information recorded about this work, such as its author, date, and place of the *Editio Princeps*.

In Figure 8 we can see the analytical description of a certain work (*Commentaries on Homer's Iliad and Odyssey*). Here, the researcher can find useful information about widespread manuscripts related to the *Editio Princeps* of the selected work.

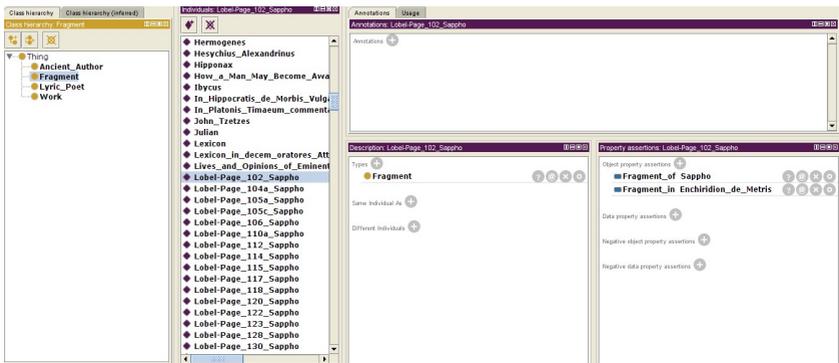


Figure 4. Location of the work (*Enchiridion de Metris*) where a certain fragment (Lobel-Page_102_Sappho) is included.

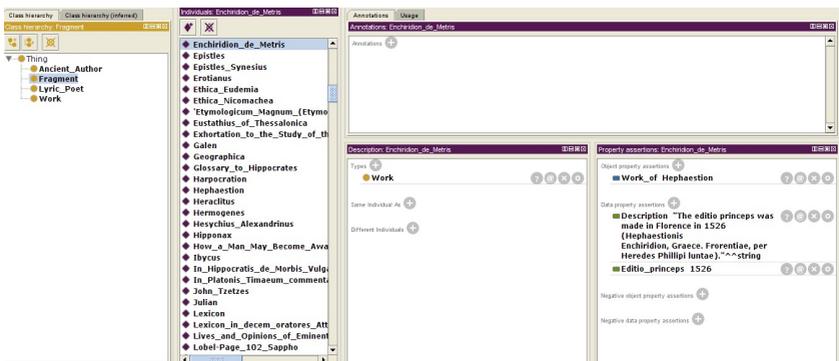


Figure 5. Recorded data about the work *Enchiridion de Metris* (containing the aforementioned fragment Lobel-Page_102_Sappho) of Hephæstion as it reappeared in the Renaissance (*Editio Princeps*).

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SPARQL query
PREFIX rdf: <http://www.w3.org/1999/02/22-rdf-syntax-ns#>
PREFIX owl: <http://www.w3.org/2002/07/owl#>
PREFIX xsd: <http://www.w3.org/2001/XMLSchema#>
PREFIX rdfs: <http://www.w3.org/2000/01/rdf-schema#>

PREFIX ns: <http://www.semanticweb.org/user/ontologies/2023/5/urited-ontology-35#>
SELECT ?fragn ?work ?date ?author
WHERE { ?fragn ns:Fragment_of ns:Minnermus ?work ns:Editio_princeps ?date }
ORDER BY (?work)
    
```

fragn	work	date	author
West_12_Minimermus	Deipnosophts	"1514"^^<http://www.w3.org/2001/XMLSchema#int>Athenaeus	
West_6_Minimermus	Lives_and_Opinions_of_Eminent_Philosophers	"1533"^^<http://www.w3.org/2001/XMLSchema#int>Diogenes_Laertius	
West_14_Minimermus	Anthology	"1532"^^<http://www.w3.org/2001/XMLSchema#int>Stobaeus	
West_5_Minimermus	Anthology	"1532"^^<http://www.w3.org/2001/XMLSchema#int>Stobaeus	
West_8_Minimermus	Anthology	"1532"^^<http://www.w3.org/2001/XMLSchema#int>Stobaeus	
West_1_Minimermus	Anthology	"1532"^^<http://www.w3.org/2001/XMLSchema#int>Stobaeus	
West_3_Minimermus	Anthology	"1532"^^<http://www.w3.org/2001/XMLSchema#int>Stobaeus	
West_2_Minimermus	Anthology	"1532"^^<http://www.w3.org/2001/XMLSchema#int>Stobaeus	
West_4_Minimermus	Anthology	"1532"^^<http://www.w3.org/2001/XMLSchema#int>Stobaeus	
West_9_Minimermus	Geographica	"1516"^^<http://www.w3.org/2001/XMLSchema#int>Strabo	
West_11_Minimermus	Geographica	"1516"^^<http://www.w3.org/2001/XMLSchema#int>Strabo	
West_10_Minimermus	Geographica	"1516"^^<http://www.w3.org/2001/XMLSchema#int>Strabo	

Figure 6. Syntax of the composite Query 2: locate all the works including a fragment of a certain lyric poet (Minnermus). List of the results (fragment, work, date of *Editio Princeps*) is given in tabular form.

The screenshot shows a SPARQL query result viewer. On the left, a 'Class hierarchy' tree is visible, with 'Geographica' selected. The main area displays a list of individuals under the 'Geographica' class, including 'Erotianus', 'Ethica_Eudemia', 'Ethica_Nicomachea', 'Etymologicum_Magnum_Etymo', 'Eustathius_of_Thessalonica', 'Exhortation_to_the_Study_of_th', 'Calen', 'Geographica', 'Glossary_to_Hippocrates', 'Harpecraton', 'Hephaestion', 'Heracitus', 'Hermogenes', 'Hesychius_Alexandrinus', 'Hipponax', 'Hov_3_Man_May_Become_Awa', 'Ibycus', 'In_Hippocratis_de_Morbis_Vulg', 'In_Platonis_Timaeum_comment', 'John_Textes', 'Julian', 'Lexicon', 'Lexicon_in_decom_aratoris_Alt', 'Lives_and_Opinions_of_Eminent', 'Lobel-Page_102_Sappho', 'Lobel-Page_104a_Sappho', 'Lobel-Page_105a_Sappho', and 'Lobel-Page_105c_Sappho'. On the right, a detailed view of the 'Work' type is shown, with 'Editio princeps 1516' selected. The 'Description' field contains the text: 'The work Geographica was printed at Venice by Aldus Manutius in 1516.'

Figure 7. Information recorded about one of the works located through Query 2 (see Figure 6 – selected work: *Geographica*), such as its author, date, and place of the *Editio Princeps*.

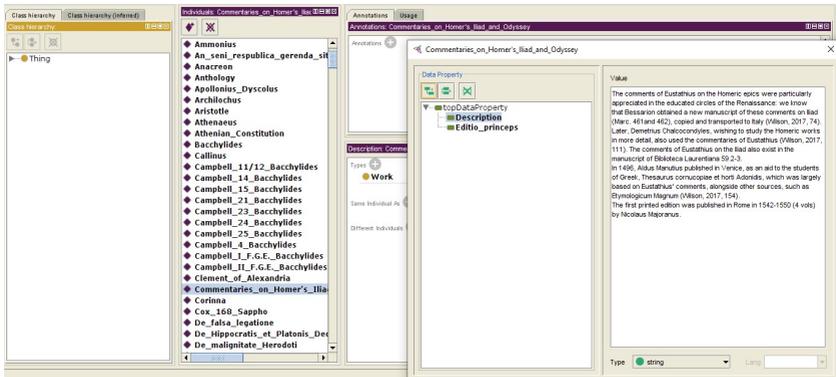


Figure 8. Analytical description of a certain work (*Commentaries on Homer's Iliad and Odyssey*) of Eustathius of Thessalonica. Here, we can find useful information about widespread manuscripts related to the *Editio Princeps* of the selected work.

4 About selected poets and editions – Further research

The lyric poets selected for the recording of their fragments and who reappeared in Humanism and the Renaissance are those who fall into the archaic period (c. 750-480) and more specifically: Alcaeus, Alcman, Anacreon, Archilochus, Theognis, Callinus, Corinna, Ibycus, Hipponax, Mimnermus, Xenophanes, Sappho, Simonides of Amorginus, Simonides of Ceos, Solon, Stesichorus, Terpandrus, Timocreon, Tyrtaeus, Phocylides. We also added two important lyric poets, Bacchylides (518-451) and Pindar (522-443), who are on the borders between the archaic and the classical period, taking into account that the borders in historical dating are set to a certain extent conventionally. These two poets formed their poetics and lived their youth within the archaic period, and in fact their work is formally part of the creation of this period.

The data concerning the manuscripts and the first editions were drawn both from cited authoritative bibliography⁴ and from field research in some of the most important libraries in Italy (Marcian Library in Venice, Ambrosian Library of Milan, Laurentian Library of Florence).

4. The recording of the lyrical fragments was done according to the following editions: (Campbell 1992; Cox 1925a; Diehl 1936; Cox 1925b; Lobel and Page 1955; Page 1968; West 1980)

We hope that the current study will prove to be an important step in the specific field of the history of literature, based mainly on the organization of various connections of the related terms. Certainly, the offered structure will be available for further enrichment of the included information based on new research data that will arise.

We deem that, within the developing science of the reception of texts and especially the reception of ancient literature during Humanism and the Renaissance, researches such as the present one, which exploit, beyond the classical methods of the humanities (textual study, archival research, etc.), the means provided by digital technology (digital humanities), not only constitute an important tool in the hands of the researcher, but also open a field for further development of knowledge and its organization.

Two extensions of the current research could be:

1. inclusion of other manuscripts that contain preserved lyric fragments,
2. inclusion of additional first editions of works by ancient authors, saving fragments, which, so far, we have not been able to locate or confirm.

The present work can be considered a “work in progress”, since the database of the ontology will continue to be enriched by findings and information that will arise through further research, as well as contact and interaction with other researchers, who are invited to communicate with us and cooperate in the frame of the available web form of the current ontology.

References

- Campabell, David A., ed. 1992. *Greek Lyric, Volume IV: Bacchylides, Corinna, and Others*. Harvard University Press.
- Cox, Edwin Marion, ed. 1925a. *The poems of Sapphewith historical and critical Notes, Translations and a Bibliography*. Williams / Norgate / Charles Scribner's Sons.
- Cox, Edwin Marion, ed. 1925b. *The poems of Sapphewith historical and critical Notes, Translations and a Bibliography*. Williams / Norgate / Charles Scribner's Sons.
- Diehl, Ernst, ed. 1936. *Anthologia Lyrica Graeca*.
- Lobel, E., and Denys L. Page, eds. 1955. *Poetarum Lesbiorum Fragmenta*. Oxford University Press.

Page, Denys L., ed. 1968. *Lyrice Graeca selecta*. Clarendon Press.

West, L., ed. 1980. *Delectus ex iambis et elegis Graecis*. Clarendon Press.