Digital Critical Editions of Homer

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Table of contents

- Aims of the thesis and choice of Homer
- Printed and digital editions of Homer
- Scholia graeca in Odysseam
- Encoding the scholia: the critical apparatus
- Example of Euripides
- Proposal
- Conclusion
Aims of the thesis

Discuss whether, and how, a digital edition could answer the questions that arises during the process of making an edition, about the text and its history.

Describe the state of the art of printed and digital Homeric editions. Finally a prototype for a digital edition based on new scholarly grounds will be proposed and its contents will be evaluated, in order to discuss possible future developments.
An open source critical edition is a digital critical edition where the underlying code is made available under open licence.

An open source edition should have a free distribution not only of the software but also of the origin code of the software and it should be essential that there are no legal implications in the re-use of the material provided in the edition.

The source provided should be referred not only for the software, but also for the words and codes used in the apparatus criticus.
Origin of the Homeric text is not written but oral.

M.L. West: the Iliad [...] is a written text. And is only the completion of the writing down that marked the completion of the composition.

Dué and Ebbott: the Iliad and the Odyssey were not composed in writing [...] and there is no author’s original composition to attempt to recover. Every version could represent a difference performance possibility.
Why Homer

- Existence or non-existence of Homer as a real author.
  - Giambattista Vico *Discoverta del Vero Omero* 1744
  - Friedrich August Wolff *Prolegomena* 1795
- Concept of authorship:
  - Roland Barthes *The death of the author* 1968
  - Michel Foucault *What is an author?* 1969
Printed editions of Homer

Print editions
- Iliad M.L. West, 1998-2000
- Odyssey Van Thiel, 1991
- Nagy G., Homer the Classic, 2009 – Homer’s Text and Language, 2004 (This is not an edition)
1991, Helmut van Thiel Odyssey
1998, Martin L. West Iliad
Digital Editions of Homer

Digital Editions

Homer Multitext “seeks to present the textual transmission of the Homeric Iliad and Odyssey in a historical framework. Such a framework is needed to account for the full reality of a complex medium of oral performance that underwent many changes over a long period of time. These changes, as reflected in the many texts of Homer, need to be understood in their many different historical contexts. The Homer Multitext provides ways to view these contexts both synchronically and diachronically” (Homer Multitext home page).

Chicago Homer-Eumaios “is a multilingual database that uses the search and display capabilities of electronic texts to make the distinctive features of Early Greek epic accessible to readers with and without Greek” (Chicago Homer home page)
Tell me, Muse, about the wily man who wandered
long and far after he sacked the sacred citadel of Troy.
He saw the cities and knew the minds of many men.
but suffered at sea many sorrows in his heart.
struggling for his life and comrades’ return home.
But he didn’t save his comrades, much though he wanted to.
for by their own recklessness they perished,
childish fools, who devoured the cattle of the Sun, Hyperion,
who then deprived them of their homecoming day.

Grammar (OD.1.1, word 1)
Word form: doxoe
Lemma (G.SD): doxr-e
Description: noun, masc, acc, sg

Lemma Frequency
<table>
<thead>
<tr>
<th>Title</th>
<th>Count</th>
<th>N. Freq</th>
<th>Sp. Freq</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iliad</td>
<td>590</td>
<td>319.4</td>
<td>445.2</td>
</tr>
<tr>
<td>Odyssey</td>
<td>446</td>
<td>227.8</td>
<td>479.3</td>
</tr>
<tr>
<td>Hesiod</td>
<td>96</td>
<td>411.7</td>
<td>N/A</td>
</tr>
<tr>
<td>Four Hymns</td>
<td>35</td>
<td>117.9</td>
<td>246</td>
</tr>
<tr>
<td>Later Hymns</td>
<td>7</td>
<td>167.9</td>
<td>N/A</td>
</tr>
<tr>
<td>Corpus Total</td>
<td>1172</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Lemma frequency gives counts and frequencies per 10,000 lines of narrative or speech. ‘Four Hymns’ refers to Demeter, Apollo, Hermes, and Aphroditic Hymns. ‘Later Hymns’ refers to the other Hymns. Narrative and spoken frequencies are not separated for Hesiod or the Later Hymns.
Welcome to the Homer Multitext

The Homer Multitext seeks to present the textual transmission of the Homeric Iliad and Odyssey in a historical framework. Such a framework is needed to account for the full reality of a complex medium of oral performance that underwent many changes over a long period of time. These changes, as reflected in the many texts of Homer, need to be understood in their many different historical contexts. The Homer Multitext provides ways to view these contexts both synchronically and diachronically.

The Homer Multitext is a long-term project emphasizing collaborative research (we are particularly interested in undergraduate research), openly licensed data, and innovative uses of technology.

The Homer Multitext welcomes collaboration in the form of diplomatic editions, images of historical documents, and translations. All material must be openly licensed and attribution will be given to the contributors. Please contact Casey Due (casey@chs.harvard.edu) and Mary Ebbott (ebbott@chs.harvard.edu).

Inventory of Homeric Scholia

The Homer Multitext is compiling a comprehensive inventory of the scholia on Byzantine manuscripts of the Iliad. See initial work from summer, 2010.

Diplomatic editions of manuscripts of the Iliad

The Homer Multitext is creating complete diplomatic editions of Byzantine manuscripts of the Iliad, and making them available both for downloading, and for interactive use, here.
Example scholia:
Harley MS 5674
Scholia Graeca in Odysseam


Text of the scholia: paragraphs numerated with alphabetical letters where each letter indicate separate scholia on the same line, not necessarily on different words, and not on every single word. The letters are followed by numbers if the editor thinks that the scholia have a different origin but came from the same root.

A colon separates the lemma, the words that the scholia comment, if they exist in the manuscript; if they do not exist, the lemma is supplemented between square brackets.

At the end of each single scholium appear the sigla of the manuscripts where the scholium is found.
Scholia Graeca in Odysseum α 1

Apparatus Testimoniørum

Apparatus Criticus

Sigla codicum

Citation of Homeric verses

Ordo Homeri verborum, quamvis differentis originis

Naturam aetatemque scholiorum glossarumque

grammatica, rhetorica, antiquaria, historica

Choerobosci

grammatica, rhetorica, antiquaria, historica

grammatica, rhetorica, antiquaria, historica
Encoding the scholia

XML-TEI Relax NG schema with Roma.

The text of the scholia:

- `<div type="scholia">
  <head>α 1</head>
  <div type="Hrd.">
    <p n="a">[…]</p>
  </div>
</div>`

The list of sigla, problem of tag abuse:

- `<listWit xml:id="mss.a1">
  <witness>M</witness><hi rend="suprascript">a</hi></listWit>`
Encoding the scholia

The apparatus testimoniorum:

- `<note n="d1">= Choer. epim. Ps. 6, 24-32 (fort.ex Oro; e Choer. EM 107, 40-45= α 1393 L.-L.); quinque vero significationes praeident Ap. Gl. Hom. 74, 220, 10 et TZ. in Hes. op.1 (p. 39, 19-21 Gaisf.; cf. Cf. Eust. in Od. 4,16)</note>

- A note element put at the end of a `<div>` element with an attribute `n` holding the letter that correspond to each paragraph and scholium.
The critical apparatus and the TEI:

The Location-referenced Method provides a convenient method for encoding printed apparatuses; with this method as in most printed editions, the apparatus is linked to the base text by indicating explicitly only the block of text on which there is a variant.
Encoding the scholia
The critical apparatus

The critical apparatus and the TEI:

- The **Double-End-Point attachment method** permits unambiguous matching of each variant reading against its lemma. This or the parallel-segmentation method should be used in all cases where this is desired, for example where the apparatus is intended to enable full reconstruction of the text, or of the substantives, of every witness.
The critical apparatus and the TEI:

- The Parallel Segmentation Method. In this method, no two variations can overlap, although they may nest. The texts compared are divided into matching segments all synchronized with one another. This permits direct comparison of any span of text in any witness with that in any other witness. It is also very easy with this method for an application to extract the full text of any one witness from the apparatus.
The choice:

The Parallel Segmentation Method:

<app><lem>ύπόθεσις Ὀδυσσείας α Ὀμήρου ραψῳδίας</lem><rdg wit="#f">Ὀδυσσείας ἀ υπόθεσις</rdg><rdg wit="#d">ὑπόθεσις Ὀδυσσείας</rdg><rdg wit="#b.1">ὑπόθεσις τῆς α Ὀδυσσείας Ὀμήρου</rdg><note>(Ὅμ. om. P)</note><rdg><rdg wit="#c #e #g">ἂλλη</rdg><note>hypothesi subiungens</note></rdg></app>
Encoding the scholia
The critical apparatus

Problems:

- the encoding of the sigla of the manuscripts in the wit attribute of the <rdg> element:
  
  \[
  \text{<rdg wit="#b.1"} > \text{ύπόθεσις τῆς α Ὀδυσσείας Ὀμήρου}\n  \text{<note>(Ὀμ. om. P)</note>}</rdg>
  
- encode all the manuscripts inside a <listWit> element in the <sourceDesc> element of the TeiHeader:
  
  \[
  \text{<sourceDesc><listWit><witness xml:id="b.1"} > M<hi rend="suprascript">1</hi></witness></listWit></sourceDesc>
  \]
Professor Mastronarde’s choice in the Digital edition of the scholia of Euripides.

He says that “for practical reasons” he decided to have the least possible number of items displayed as superscripts. He decided that, instead of listing a sequence of witnesses as $X^sXa^sXb^sTs^sY^sGr^sZ^sZa^sZm^s$, he will list it as $XXaXbTYGrZZaZm$ and enters the note ‘s.l.’ in the position segment.

To handle the cases where the superscript is unavoidable, he uses a “seg with @type of ‘witMod’, and such a segment can occur within the witness list, in remarks about lemma or position, in the apparatus criticus and in other div4 elements except the translation and keywords”.

```
<seg type="witnesses">MBOVACFGKPrRSSa, XXaXbYGZaZbZcZu; 1–2 τολμη[ and 10 ω]υτοίϲ–13 Ρ. Oxy. 2455 = Π<seg type="witMod">1</seg></seg>
```
Encoding the scholia
The critical apparatus

Problems:

- the abbreviation used by the editor:
  - om. which means omittit, omittunt or similar:
    - ἦν ἡ Ἀθηνᾶ εἰς Ἰθάκην, and in the apparatus there is ἥ om. 
      HM1Z εἰς Ἰθάκην om. Ἱ
    - <app><lem>ἐπίθετα</lem><rdg wit="#a">ἐπίθετα</rdg></app>

- add.
  - μόνα s.l. post ἐπίθετα add D
  - <app><lem>ἐπίθετα</lem><rdg wit="#b.1">ἐπίθετα μόνα</rdg></app>
Encoding the scholia
The critical apparatus

- Citation of some Homeric verses inside the text of the scholia, both from the Iliad and from the Odyssey.
- ὡς τὸ "ὅς που νῦν γε μετ᾽ ἀνδρῶν ἱζει ἄριθμῷ" [λ449]
- Possibility of encoding them as verses and linking them to Homeric texts at the Perseus Project.

- Abbreviation mss., manuscripts, in the apparatus.
- Which xml:id to use in order to connect the mss. abbreviation with the list of manuscripts specific for that scholia?
Encoding the scholia
The critical apparatus

- Abbreviation mss., manuscripts, in the apparatus. Problem: each single scholium has a different list of manuscripts. How to encode this list?
  - <wit>: contains a list of one or more sigla of witnesses attesting a given reading, in a textual variation. Good semantically, not structurally.
  - <listWit>(witness list): definitions for all the witnesses referred to by a critical apparatus, optionally grouped hierarchically. It is a tag abuse because it does not define new witnesses, only reference them.
  - <seg>: represents any segmentation of the text. Too generic.
Inventory of scholia: Venetus A: Marcianus Graecus Z. 454 (= 822), folio 42r

Inventory of scholia edited by Melissa Browne. Images of individual scholia are linked to zoomable images showing their location on the folio.

_Homeric_ text: 3.1–3.25

Main scholia

tlg5026.msA:3.5 (comments on _Iliad_ 3.1)
tlg5026.msA:3.1 (comments on _Iliad_ 3.1)
tlg5026.msA:3.671 (comments on _Iliad_ 3.1)
tlg5026.msA:3.8 (comments on _Iliad_ 3.2)
tlg5026.msA:3.10 (comments on _Iliad_ 3.3)
tlg5026.msA:3.12 (comments on _Iliad_ 3.4)
tlg5026.msA:3.15 (comments on _Iliad_ 3.5)
tlg5026.msA:3.16 (comments on _Iliad_ 3.6)
tlg5026.msA:3.23 (comments on _Iliad_ 3.10)
Digital edition of the scholia of Euripides


- Goals: “a digital format is variable, updatable, allows for sharing of interim stages of the work, is expandable, is searchable in a way that a printed volume is not and it is highly probable that a digital format will be able to be transformed fairly efficiently in the future into another digital format”.

- Not to use the TEI mechanisms for the apparatus criticus, the readings and the variants, it “would involve an unjustifiably large overhead of markup. I believe the information familiar to those who know how to read the apparatus criticus of a classical text can be provided in textual segments”. would “require more personnel and a much larger budget, and I don’t think the benefit would be worth the cost”.
Euripides Scholia

Euripides Scholia

Prefatory material (argumenta/hypothesis) for Orestes

Arg. 1: Ancient epitome: ύποθεσεις Οἰκήτηρ

'Ορεστής τον φύσιν τον πατρός μεταπορευμονός ἀνέλειψεν Αἴγυπτος καὶ Κλασταίςκωνοι; Ἰακώβους δὲ τοῦ πατρὸς τῆς ἀνδρομείον καταγορίσατο καὶ αὐτοῦ ἑλλῆνικον κοινὴν Ἀργείων χίλια χιλιάδες ἀρκεῖο ἀκολούθησαν. Κατὰ τὴν τέλειον Ὁρεστὴν ἡ Ἕλληνικὴ ἐποδήλωσε τὸν Ἐλεύθερον ἐξ ἀιώνων ἀποτέλεσται, ἐμφάνισεται ἐπὶ τῷ δραματικῷ τοῦ Οἰκήτηρος ὁ Οἰκήτηρ. Καὶ τις καταλάβει τῆς Ἑλληνικῆς ἀρχαίας παραδοσίας τῆς Ἑλληνικῆς ἑθικῆς νομοθεσίας, τῷ Ἐλευθερίῳ ἐπιτέθεσαν ἐξ οὗ ἐξήραντος, ἔφεσαν ἀποθέλησαν τοῦ Ἐλευθερίου τὸν Ἐλευθερίου τῇ Ἑλληνικῇ ἑθικῇ νομοθεσίᾳ. Οἱ δὲ ἐπιθυμοῦσιν τοῦ Ἐλευθερίου τῷ Ἐλευθερίῳ διατίμησαν τὸν Ἐλευθερίου τῷ Ἐλευθερίῳ. Οἱ δὲ ἐπιθυμοῦσιν τοῦ Ἐλευθερίου τῷ Ἐλευθερίῳ διατίμησαν τὸν Ἐλευθερίου τῷ Ἐλευθερίῳ. Οἱ δὲ ἐπιθυμοῦσιν τοῦ Ἐλευθερίου τῷ Ἐλευθερίῳ διατίμησαν τὸν Ἐλευθερίου τῷ Ἐλευθερίῳ. Οἱ δὲ ἐπιθυμοῦσιν τοῦ Ἐλευθερίου τῷ Ἐλευθερίῳ διατίμησαν τὸν Ἐλευθερίου τῷ Ἐλευθερίου.

Arg. 2a: Hypothesis of Aristophanes of Byzantium: Αριστοφάνους γερμακομετέρου ύποθεσεις

'Ορεστής διὰ τῆς μητρώς σφαγῆς ἡμᾶς καὶ ὑπὸ τῶν Ἐλευθερίων δειματοσύνος καὶ ὑπὸ τῶν Ἀργείων κατακρίνεις βασιλέα, ἰδίως φιλοκεφαλῆς Ἐλευθερός καὶ Ἐλευθερός αὐτῆς τῶν Σωματικῶν παρῶν οὐκ ἔβαλεν, διεκδικήσα τῷ Ἀτταλίσσιον. τὸ παραδίδοντος γενικοῦ τῆς Ἐλευθερίου.

Arg. 2b: Anonymous comment

' Ἡ μὲν σκηνή τοῦ Ὄραστρος ὑπόκειται ἐν Αἴγυπτῳ: ὡς ἐν χρόνος συνετάτοις ἐν γυναικῶν Ἀργείων, ἡ λυκεύτων Ἡλέκτρας, αἱ καὶ παραγωγοῦσαν ύπήρ τῆς τοῦ Ὅραστρος παθηθηκόντος συμφοράς, τὰ προλογία ἤπειρον Ἡλέκτρας.

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MBVCGRFPRSSa, ΞXaXbYGrZbZbZa 1-2 τόμων [and 10 αιτητικής 13 P. Οὔη. 2455 = ΠΙ]
Conclusion on the Euripides scholia edition

The user/reader does not have a choice; everything is already decided by the editor. There is only the possibility of choosing which version to see on screen, a version already created by the editor in its complete form. It is also possible to access the source files and modify them, but the visualization provided by the editor is fixed.
To Theo van Gogh. London, between Tuesday, 13 and Sunday, 18 April 1875.

London April 1875

Waardev Theo,
Hierbij stuur ik U eene kleine teekening. Ik maakte die verl. Zondag, den morgen waarop een dochtertje (12 jaar) van mijne landlady stierf.

‘t Is een gezicht op Streatham Common, een groote met gras begroeide vlakte met eikebomen & brem. ‘t Had s nachts geregend & de grond was hier & daar druistig & ‘t jonge lentegroen frisch & groen.

Zooals ge ziet is het gekrabbel op het titelblad van de “Poesies d’Edmond Roche” —

Daar zijn mooie bij, ernstig & droevig. a.a. één dat begint & eindigt

J'ai cru triste & seul, la dune triste & nue,
Où la mer fait gémir sa plainte continue,
La dune où vient mourir la vague aux larges plis
Monotone sentier aux tortueux replis.

en een ander, “Calais”

Que j'aime à te revoir, o ma ville natale,
Chère nymphe marine assise au bord des eaux!
J'aime de ton bœuf la fileuse qui s'élançe,
Belle de hardiesse & belle d'élégance,
Et sa coupole à jour qui laisse voir les cleux.

Je zult waarschijnlijk nieuwsgierig zijn naar dat wat bij de ets van Corot hoort & daarmee schrijf ik dat ook over.

L'étang à Corot

Nous regardons l'étang d'une eau mornre & plombée
Lentement sous la brise assemblée pli sur pli,
Et la vase cerné d'un contour assoupli
La proue & les flèches noirs d'une barque embrouillé;
<table>
<thead>
<tr>
<th>Scholia</th>
<th>Manuscripts</th>
<th>Critical apparatus</th>
<th>Papyri</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Text of the Odyssey</td>
<td></td>
</tr>
<tr>
<td>By clicking on the names the content will appear on the left or right. Every time something is chosen, more possibilities will appear in the menu, each referred to the content chosen. The text of the Odyssey will always be at the center of the page.</td>
<td>Between the various possibilities: pictures of manuscripts, apparatus criticus, apparatus testimoniorum for the scholia, digitization of the manuscripts when available.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Text of the Odyssey
The words and verses can have links and by clicking on a link a window can pop up. Problems: too many windows can cover the text and the scholia have their own apparatus and notes and images, where can their windows go?

Scholia and their apparatus

Critical apparatus

Manuscripts Images or links, digitization

Papyri Images or links, digitization
Conclusion

- Is this idea good or was the idea of digital edition misunderstood?
- Can a paper edition be the base for an encoding or should a digital edition be born digital?
- How can the characteristics of a paper edition be transferred into digital without being too bound to the paper edition, with the risk of encoding a book following the form of a book, not exploiting the digital format.