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Fragmentary Texts and Digital Libraries

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Introduction

The aim of this paper is to describe a new model for representing fragmentary texts in a digital library of classical sources. A fragment is the surviving piece of something irremediably lost or never finished. In this sense the word is applied to a great variety of material remains of ancient evidence, such as monumental ruins, potsherds, scraps of papyri, or broken inscriptions. [1] The boundaries of these fragments are marked by margins, whose materiality draws our attention to the exteriority of the evidence, influencing our reconstruction of the wholeness to which the fragment belonged and our perception of the reasons of its fragmentation, usually due to an external violent event like destruction or consumption. If a fragment of this kind bears textual evidence, the materiality of the fragment extends also to the text, which becomes the surviving broken off piece of an ancient writing. [2]

As far as concerns textual evidence, there is also another category of fragments, which refers to a completely different phenomenon, because these excerpts are not portions of an original larger whole, but the result of a work of interpretation conducted by scholars, who extract and collect information pertaining to lost works embedded in other surviving texts. These fragments include a great variety of formats ranging from verbatim quotations to vague allusions, but they are only a more or less shadowy image of the original according to their major or minor distance from a literal citation. This use of the term fragment may be misleading, because the original text of the excerpt is usually covered by the context of transmission and distorted by the style and purpose of the author who has extracted and quoted it (usually called the ‘witness’ of the fragment). [3] In addition, literal quotations may be incorrect, and especially in the case of prose it can be very difficult to distinguish verbatim citations from paraphrases or summaries, since the original sense of the text may be altered by omissions, deformations, or polemical reasons. [4]

A print collection of fragments consists of textual excerpts drawn from many different sources and arranged according to various criteria, such as chronological order or thematic disposition. The length of these excerpts can be significantly different from one edition to

[1] For a definition of the term, see OED[2], VI, s.v. fragment. The main concepts expressing the meaning of the term fragment are also represented by synsets (sets of cognitive synonyms) in WordNet, which is a lexical database for the English language (http://wordnet.princeton.edu/).

[2] Gumbrecht 1997, 320. Among the many examples of this kind of ‘fragmented’ evidence, see the *Marmor Parium* and the *Hellenica Oxyrhynchia.*

[3] Schepens 1997a, 166; 2000, 4-13.

[4] Brunt 1980, 478, 482; Bowersock 1997, 174; Lenfant 2007a, 47, 53-63; Bamman-Crane 2008b, 2.

another and depends on the editor's choice: he can decide to publish a longer or shorter extract if he attributes a bigger or smaller portion of the embedding text to the fragment, or if he wants to provide the reader with the longest possible context in order to give him a better understanding of the quotation preserved in it. [5] In any case, when an extracted portion of text is printed, it immediately acquires a sort of materiality due to its typographical representation: it has very definite margins like a real fragment, but it is actually the result of a modern extraction and interpretation; it can give false illusions because the fragment in itself doesn't exist, and it is only like a shadow, whose shape is blurred and can lead to a distorted perception of reality. [6] Nevertheless, collecting fragments is a well-established tradition and the great enterprises of scholars from the Renaissance onward have permitted us to rediscover and preserve an inestimable cultural heritage otherwise lost and forgotten. [7] At the same time, looking for remains of lost works is a very useful methodological exercise for practicing reconstruction of ancient testimonies, and it is also a stimulus for interdisciplinarity, given that an editor has to face a lot of problems deriving from the great variety of subjects and many different kinds of texts that usually form a collection of fragments. [8]

One of the main concerns when raising evidence of lost works is reconstructing the complex relationship between the fragment and its source of transmission, which means weighing the level of interference played by the author who has reused and transformed the original context of the fragment, measuring therefore the distance between the source text and the derived text, and trying to perceive the degree of text reuse and its effects on the resulting target text. [9] This interpretative process is usually explained in the commentary of a fragment edition or in papers and monographs pertaining to various aspects of fragmentary authors and works, but it is completely lost in the print representation of the fragments, which are simply typographical reproductions of extracts of derived texts.

Our aim is to rethink the fundamental question of the relation between the fragment and its witness, providing a new model for representing ancient sources based on information technologies, which enable the building of digital collections designed not only to preserve but also to extend the ontologies that traditional scholarship has developed over generations, while also representing every element of print conventions in a more dynamic and interconnected way. Even if many different genres of fragmentary texts have been preserved, our observations will be focused on Greek fragmentary historians because they can be

[5] Compare, e.g., FHG I 54 fr. 73 with FGrH 323a F 14. For an explanation of these abbreviations, see note 10.
[6] Brunt 1980, 477.
[7] Dionisotti 1997. On the importance of fragmentary texts for our knowledge of ancient literature, see Strasburger 1977, 9-22; Schepens 1997a, 144-45. Cf. also Berti et al. 2009, 259.
[8] Dionisotti 1997, 27.
[9] Lee 2007, 472.

considered representative in many respects for building a digital collection of fragmentary authors. Moreover, the monumental collections of Greek historical fragments published in the last two centuries have established fundamental questions on gathering and editing fragments: the emerging digital libraries of classical sources challenge us to rethink these questions and the characteristics of textual fragments. [10]

Before addressing these questions, we would like to discuss a few points pertaining to the new possibilities that are being offered by digital technologies to create a new infrastructure for classical studies, where the goal is to provide a wide range of services for representing and studying ancient sources in a way never feasible in print culture. [11] These services are part of a Cyberinfrastructure in the Humanities and Social Sciences, which has been proposed by the American Council of Learned Societies, not only to diffuse technological innovations in the academic world, but to develop new models, tools, and standards for representing new digital editions of texts, and to build a "cumulative, collaborative, and synergistic" digital scholarship. [12]

Information technologies are making it possible to publish large amounts of resources pertaining to classical studies on the web. They are presented in a great variety of formats and include many kinds of sources, such as literary texts, epigraphs, papyri, and images of archaeological evidence, while also providing translations and transcriptions of texts, commentaries, papers, books, encyclopedias, atlases, bibliographical databases, as well as audio records of conferences and workshops concerning every aspect of the ancient world. The most impressive information phenomena, however, which are affecting the work of classicists are the mass digitization projects of Google Books and the Internet Archive, the Wikipedia project, and blogs for electronic discussion groups. Every day an increasing number of digitized texts appears on Google Books: even if most of them can be seen only in a snippet or limited preview, there are many texts out of copyright that are fully viewable. Huge

[10] The two fundamental reference works for all research on Greek fragmentary historiography are FHG (*Fragmenta Historicorum Graecorum* I-V, coll. K. and Th. Müller. Parisiis 1841-84) and FGrH (*Die Fragmente der Griechischen Historiker* I-III, v. F. Jacoby. Berlin - Leiden 1923-58). On the international project aiming at publishing the sections that Jacoby planned but never made public, see Schepens 1997a and 1998. For other recent projects that have been undertaken to update Jacoby's work and make it more usable and accessible, see Marincola 2000 and 2005; Worthington 2005; Lanzillotta 2006.

[11] For recent debate on the new perspectives offered in the fields of the so-called eClassics and ePhilology, see Crane-Bamman 2007; Crane et al. 1991; 2006; 2007; 2009a; 2009b; Crane-Seales-Terras 2009; Blackwell-Crane 2009; Bodard-Mahony 2010; Crane 2010; Numerico-Fiormonte-Tomasi 2010. For an overview of the history of computing in classics and a deep survey of multidisciplinary classical digital libraries and requirements for a cyberinfrastructure for digital classics, see Babeu 2010.

[12] Welshons 2006. For an example of applications of these principles to classical studies, see Pritchard 2008.

collections of these documents belong to the field of classical studies, and thus allow scholars to consult and download many critical editions published in the 19th and 20th centuries. Needless to say this is the first step toward an extraordinary contribution to the preservation of an inestimable patrimony of older scholarship, which is often neglected, not only because it is considered old and out-of-date, but also because in many cases it is difficult to locate and consult in traditional libraries. [13]

On the other hand, the increasing success of Wikipedia and blogs urges every scholar to question the future of the production and dissemination of knowledge. Classicists are facing a new world where their subjects of research are shared by many people, and they have the responsibility to pay attention to these phenomena in order to preserve the cultural heritage and provide the best possible sources of information and discussion. At the same time, free access to web resources presents an extraordinary chance for classicists to participate in the cultural debate and revitalize the role of classical studies in modern civilization. Conversely, the web is helping to create new models for scholarly collaboration, breaking down the strong individualism that characterizes research in the humanities, and contributing to a synergetic exchange among different specializations as regularly happens in the sciences. [14]

Nevertheless, even if the data published on the web are constantly increasing, our capacity to absorb and process them is relatively constant, and we face the risk of information overload, while also losing the ability to find and select useful and high-quality material for our work. Search engines have their limitations, because they allow us only to look for specific words in documents and not for relations among them and their contents. This problem has emerged since the birth of the web and has led to the evolution of the so-called Semantic Web: its goal is to develop methods and languages to describe the semantics of web documents and resources, in order to organize them and express their relationships; it aims at extending the syntactic and semantic capacities of the web, integrating and combining data drawn from different sources, which means sharing concepts not just keywords. [15]

These efforts are moving toward developing a new interdisciplinary field called Web Science: its goal is to gather experts from every branch of knowledge to study the web and deal with its technical and social challenges, and to then provide solutions for modelling the World

[13] In November 2008, the European Community launched a prototype of the project Europeana, which aims at gathering digital content available in Europe's museums, libraries, archives, and audio-visual collections: http://www.europeana.eu/

[14] Hardwick 2000; McManus-Rubino 2003; Rosenzweig 2006. For an early discussion on the role of the computer in classical research, see Ireland 1976; Bolter 1984 and 1991 (cf. also 2001[2]); Wright 1994. There is great debate regarding if scholarship should be openly accessible and free: Rosenzweig 2005; Willinsky 2005.

[15] On the evolution of the Semantic Web, see Berners-Lee-Hendler-Lassila 2001; Shadbolt et al. 2006.

Wide Web and understanding its social impact. [16] Scholars have a duty to take part in this debate, because they need to guarantee the building of a scholarly information environment that properly meets their requirements of producing and disseminating the results of research. Classicists can obtain durable benefits and make an effective contribution by participating in this initiative. Given the high specialization level required by many fields pertaining to classical studies, scholars cannot simply ignore interdisciplinarity and new technologies if they want to preserve the past. [17] At the same time, they can also contribute to the development of languages and methods for storing and organizing resources on the web, as shown, for example, by the fact that many logical concepts used in the Semantic Web derive from ancient thought and philosophical tradition. [18]

Representing Fragments

In the second half of the 20th century new technologies have increasingly produced computerized tools that have been customized for collecting and digitizing ancient texts, leading to the formation of digital collections of all major classical sources. [19] The development of these tools and the continuing expansion of comprehensive repositories allow classicists to deal with challenging textual cases like representing fragments in a digital library, laying the foundations not only for building a new generation of fragmentary collections that express the whole complexity of classical scholarship, but also offering a more accurate and dynamic visual representation of textual fragments, devising a structure and an interface completely different from collections produced in print culture. Print editions of fragments contain extracts from many different sources and are thus paper representations of hypertexts. [20] Now that the source editions from which fragments are extracted are becoming available in digital form, it is possible to construct editions that are truly hypertextual, including not only excerpts but links to the scholarly sources from which those excerpts are drawn. [21]

Building a digital corpus of fragmentary authors means addressing the problem of encoding and representing both the text and structure of a fragment. It is widely accepted that a digital representation of the internal and external characteristics of a text consists not

[16] Hendler et al. 2008.
[17] Epigraphy and papyrology are obtaining many benefits from new technologies: see Cayless et al. 2009; Bodard 2010.
[18] Parodi-Ferrara 2002; Benjamins et al. 2004.
[19] Over the last few decades research conducted by classicists has been focused on providing large corpora of ancient sources and on developing semantic markup of particular texts, such as TEI XML Greek and Latin sources in the Perseus Digital Library, and epigraphic documents encoded by EpiDoc, which is an extension of the TEI Guidelines (Burnard-Bauman 2009) for representing documentary texts preserved on stones, applicable also to other fields like papyrology and numismatics (see Cayless et al. 2009). Cf. also Ciotti 2005 and Albonico 2005.
[20] On the definition of hypertext in computing, see Landow 2006.
[21] On the impact of hypertext in classical scholarship, see Crane 1987.

simply of a mere reproductive and mechanical process, but of an interpretative act. [22] Accordingly, encoding fragments is first of all the result of interpreting them, developing a language appropriate for representing every element of their textual features, thus creating meta-information through an accurate and elaborate semantic markup. Editing fragments, therefore, signifies producing meta-editions that are different from printed ones because they consist not only of isolated quotations but also of pointers to the original contexts from which the fragments have been extracted. While editors should be able to define the precise chunks of text that they feel to be relevant and to be able to annotate these texts in various ways (e.g., distinguishing what they consider to be paraphrase from direct quotation), such fragments should also be dynamically linked to their original contexts and to up-to-date contextualizing information. On a broader level, the goal of a digital edition of fragments is to represent multiple transtextual relationships as they are defined in literary criticism, which include intertextuality (the presence of a text inside another text, such as quotations, allusions, and plagiarism), paratextuality (i.e., all those elements which are not part of the text, like titles, subtitles, prefaces, notes, etc.), metatextuality (critical relations among texts, i.e. commentaries and critical texts), architextuality (which means the generic quality and status of a text), and hypertextuality (i.e., the derivation of a text from a preexisting hypotext through a process of transformation or imitation). [23]

Designing a digital edition of fragments also means finding digital paradigms and solutions to express information about printed critical editions and their editorial and conventional features. Working on a digital edition means converting traditional tools and resources used by scholars such as canonical references, tables of concordances, and indexes into machine actionable contents.

In order to show how a fragment should be represented in a digital library, we are going to consider a complex example constituted by a series of fragmentary references embedded in a long section of the Plutarchean *Life of Theseus* (24-28), which pertains to the unification of Attica and the beginning of democracy, the annexation of the territory of Megara to Attica, the institution of the Isthmian games, and the war against the Amazons (see Appendix 1). In these chapters Plutarch mentions many different kinds of sources: 1) three oracles [24]; 2) the text of an inscription [25]; 3) preserved authors, such as Aristotle, Homer, Plutarch himself, and Pindar [26]; 4) a series of fragmentary historians, such as Hellanicus,

[22] Cf. Fiormonte 2003, 163-72; Ciotti 2005.
[23] For these concepts see Genette 1997, 1-7. On intertextuality see also Polacco 1998.
[24] Two oracles from Delphi (24.5 = Parke-Wormell 2.154; 26.4 = Parke-Wormell 2.411); one oracle of the Sibyl (24.5 = Hendess 23).
[25] The pillar on the Isthmus (25.3).
[26] Aristotle (25.2 = *Constitution of the Athenians* 41.2; F 384 Rose^3); Homer (25.2 = *Ilias* 2.547); Plutarch himself (27.6 = *Life of Demosthenes* 19.2); Pindar (28.2 = F 176 Sn.-Mae).

Andron of Halicarnassus, Philochorus, Pherecydes, Herodorus, Bion, Menecrates, Clidemus, and the author of the *Theseid*. [27]

These quotations have been gathered in many different collections of fragmentary texts. In particular the text of Plutarch has been split by the Müller brothers and by Jacoby into extracts scattered and repeated in the sections of their collections of Greek historical fragments corresponding to the authors mentioned by Plutarch. [28] Accordingly, the result of the print representation of these fragments is that the same text of the *Life of Theseus* is not only broken off in many excerpts, but also repeated as many times as are the authors quoted by Plutarch. Moreover, given that it is not possible to identify the boundaries of the Plutarchean quotations, the editors have adopted different criteria and the same fragments may have different lengths and divisions from one edition to the other. [29]

Digital technologies allow scholars to go beyond these limits, because standards, protocols, and tools now available permit us to express the hypertextual and hermeneutical nature of fragmentary texts, providing scholars with an interconnected corpus of primary and secondary sources of fragments that also includes critical apparatuses, commentaries, translations, and modern bibliography on ancient texts. The first requirement for building a digital collection of fragmentary texts then is to make the semantic contents of critical print editions machine readable, defining a general architecture for representing at least the following main elements pertaining to the domain of fragmentary texts in a digital library: [30]

1) Quotation as Machine Actionable Link. The fragments of the authors quoted by Plutarch in the example mentioned above should be linked to the whole text of the *Life of Theseus* (see Appendix 3). This is the first function for a proper representation of fragmentary texts: in this way it is possible to see the excerpt directly inside its context of transmission, avoiding the misleading idea of an independent material existence of fragmentary texts, which derives from typographical representation of excerpts that are actually the result of modern

[27] Hellanicus (25.5 = FHG I 55 fr. 76 = FGrH 4 F 165 = FGrH 323a F 15; 26.1 = FHG I 55 fr. 76 = FGrH 4 F 166 = FGrH 323a F 16a; 27.2 = FGrH 4 F167a = 323a F 17a); Andron (25.5 = FGrH 10 F 6); Philochorus (26.1 = FHG I 392 fr. 49 = FGrH 328 F 110;); Pherecydes (26.1 = FGrH 3 F 151); Herodorus (26.1 = FGrH 31 F 25a); Bion (26.2 = FHG II 19 fr. 1 = FGrH 14 F 2 = FGrH 332 F 2); Menecrates (26.2 = FHG II 345 fr. 8 = FGrH 701 F 1); Clidemus (27.3 = FHG I 360 fr. 6 = FGrH 323 F 18); the author of the *Theseid* (28.1 = EGF 217 Kinkel).

[28] For the references to these collections see previous notes.

[29] A different length and presentation of the same fragment are noticeable in the cases of Philochorus (FHG I 392 fr. 49 = FGrH 328 F 110), Bion (FHG II 19 fr. 1 = FGrH 14 F 2 = FGrH 332 F 2), and Clidemus (FHG I 360 fr. 6 = FGrH 323 F 18). There is also a case in which the same Hellanicus' fragment has two different lengths inside Jacoby's collection: FGrH 4 F 167a and FGrH 323a F 17a. Finally, Hellan. FHG I 55 fr. 76 corresponds to two different fragments in Jacoby (FGrH 4 F 165 = FGrH 323a F 15 and FGrH 4 F 166 = FGrH 323a F 16a).

[30] On the technical aspects see Berti et al. 2009; Romanello et al. 2009a; 2009b.

reconstructions of lost works. This function has another important advantage in a digital library because it eliminates the problem of the repetition of the same text inside a collection, as happens, for example, in the TLG digital library. [31]

2) Start and End of a Fragment. Linking the fragment to its source means collocating it again in its original context. The next step is providing a mechanism for marking the beginning and the end of a fragment in this context according to the choices of different editors. The result is that the reader, while visualizing the excerpt inside its source of transmission, is able to see simultaneously the representation of different lengths of the same fragment based on editions that have adopted different textual criteria (see Appendix 3).

3) Numbering and Ordering Fragments. Numbering and ordering fragments may vary in a significant way from one edition to another. These differences depend on the choices of the editor, who can decide to order the fragments – and consequently number them – according to different internal or external characteristics of the fragments themselves or of their sources. [32] Differences may also be the result of different fragmentations of the same text, or of the need to add new texts to a collection of fragments. Our model provides the possibility of encoding this kind of information, which is usually registered in the table of concordances of a printed edition: aligning multiple references to the same textual object can help the reader visualize different numberings and orderings of fragments in different editions, and the model also permits including new data if new editions are added.

4) Representing Information on Fragmentary Authors and Works. Within the source transmitting the fragment, it is necessary to specify that a given segment of the text is the name of the author to which the fragment is attributed, and in some cases also the title of the work and the book number to which the fragment originally belonged. Attributing a fragment to an author and a work can be a difficult task, because we can have homonymous authors and also because managing titles of ancient works can be quite challenging: in most cases, witnesses do not cite the title of the work from which they have drawn the fragment; moreover, in ancient sources, the title of a work may be attested with more or less significant variants, and the result is that different editors may attribute the same fragment to different

[31] This aspect is particularly important when the texts of a digital library are used for computational statistical analysis, because the number of occurrences of a word resulting from textual search can be completely erroneous if the collection has duplicates of the same text. In the TLG, collections of fragmentary authors are presented separately from the editions of surviving authors, and this means that the same text can be repeated many times affecting the result of textual and keyword searches.

[32] In FHG Greek fragmentary historians are arranged chronologically, while in FGrH they have a number and are divided by genres. The fragments are grouped by works inside both collections.

authors and works. [33] The goal is to develop a comprehensive catalog of unique identifiers for every fragmentary author and work that will include multiple expressions of the same author and work and where each entry will have associated meta-data, providing the scholar with a sort of canon that simultaneously includes all available information on fragmentary authors and works, with pointers to primary and secondary sources. [34] This function, beside providing the scholar with an innovative tool, can be very helpful in enhancing one of the "theoretical questions" suggested by Glenn Most when collecting fragments, i.e. the relationship between fragmentary authors and the "shifting boundaries of canon formation over time." [35]

5) Classifying Fragments. Fragments are classifiable according to multiple criteria ranging from internal to external factors. The first classification is based on literary genre, which fragments cover almost entirely, from epic and poetry to oratory and historiography. Inside the same collection fragments are usually distinguished as *testimonia* (i.e., fragments providing biographical and bibliographical information about fragmentary authors) and *fragmenta* (i.e., fragments of lost works). [36] Other criteria for classifying fragments belonging to the same literary genre can also be applied, as it is shown by the monumental work of Jacoby in editing Greek historical fragments, which is one of the most important results achieved in the field of ancient historiography. [37] Nevertheless, the print representation of these categories has many limitations because it is impossible to draw a demarcation line among many different genres of fragmentary authors and works that can be inserted in different overlapping categories: the result is that the same fragment is often repeated in many different sections corresponding to different categories. [38] A digital collection in which every fragment is preserved in its original context and represented with multiple pieces of meta-data can express the complexity of modern classifications, while not scattering and repeating the same excerpt many different times. In this way it is possible to avoid the strictness of

[33] See, e.g., Harding 2008, 1, on the different ways in which ancient authors refer to the Atthidographers' works. For homonymous authors, see Crates of Athens and Crates of Mallus, who are both considered possible authors of a work on Attic glosses, attributed by ancient sources to a unspecified Crates: Broggiato 2000.

[34] Initial work on creating a catalog and authority records for fragmentary authors has been conducted by the Perseus Digital Library: see Babeu 2008. On named entity identification see Blackwell-Crane 2009, 44.

[35] Most 1997, vi.

[36] It is worthwhile mentioning the criterium adopted by Diels and Kranz in their collection of Presocratic philosophers (*Die Fragmente der Vorsokratiker*. I-III. Berlin 1951-1952[6]): A = Leben, Schriften, Lehre (i.e., *testimonia* on authors' life, works, and doctrines); B = Fragmente (i.e., quotations of authors' works) ; C = Imitationen (i.e., works which take the author as a model). It is not always easy to distinguish between *testimonia* and *fragmenta:* cf. Laks 1997. For an example pertaining to historical fragments see Schepens 1997b.

[37] Schepens 1997a; 1998.

[38] Schepens 1997a, 148-54; 1998, ix-x.

printed categories, allowing scholars to compare a fragment with many other excerpts and visualizing its belonging to different categories in a more dynamic and simultaneous way.

Representing Textual Variants and Conjectures

Print collections of fragments often include a critical apparatus, which is normally not based on a new examination of the original manuscripts that bear witness to the text, but on a selection of variants and conjectures drawn from the best critical editions of fragment sources. This choice is principally due to the fact that it would take too much time to examine every manuscript, and also because a work of this kind would go beyond the competencies and purposes of the editors of fragments, who are primarily interested in reconstructing content and characteristics of lost works. [39]

Reference digital collections of Greek and Latin sources, such as the TLG and the Packard Humanities Institute (PHI) CD-ROM, are based on the text of a single edition for every source, without including the critical apparatus: accordingly, they are partial reproductions of printed texts, and when looking for the textual transmission of a passage scholars need to go back to the original printed edition, comparing it with other editions and philological papers concerning specific variants and conjectures. [40]

Both the emerging cyberinfrastructure for the humanities and the research conducted in the field of ePhilology have devised a new concept of Greek and Latin textual corpora, where the aim is to provide scholarly services and methods for tracking and comparing multiple versions of the same text across time, affecting in a fundamental way as well future work on fragmentary texts: [41]

1) Multiple Editions and Alignment of Citation Schemes. The first step is to collect every edition of the sources preserving fragments as well as collections of fragmentary works, so that a particular passage can be visualized in different versions of the same text reconstructed

[39] Rich critical apparatuses are provided in the most recent collections of tragic and comic fragments (TrGF and PCG). As far as concerns Greek fragmentary historians, Jacoby opted for a brief critical apparatus, and the same criterium is followed by the editors of the continuation of his work: see Schepens 1998, xiii; 2000, 13-16.

[40] On the so-called "digital incunabula", which mean the first digital projects that maintain assumptions and limits of print culture, see Crane et al. 2006; Crane-Seales-Terras 2009, 35-37. A new collection with critical apparatuses is *Musisque Deoque* (http://www.mqdq.it), which is a digital archive of Latin poetry with variants, conjectures and other exegetical tools.

[41] See Blackwell-Crane 2009, 60-64 (with bibliography), where the three fundamental elements that must characterize a digital edition are presented: 1) inclusion of images of manuscripts, inscriptions, papyri, and other source materials transmitting the text; 2) representation of multiple editions produced by different editors; 3) inclusion of multiple machine actionable *apparatus critici*, which allow scholars to compare textual comments with readings from manuscripts and other source materials. Cf. also Kraus 2009.

by different editors. In the example mentioned above, the goal is to collect all digital editions of the *Life of Theseus* and the fragmentary authors quoted by Plutarch. When on-line editions are not available in a carefully transcribed format, texts generated through optical character recognition (OCR) will be used in order to produce links between a passage and the page image of multiple editions of the same passage. [42] Moreover, given that citation schemes may differ, the system can collate various editions in order to align multiple citation schemes. [43]

2) Dynamic Collation of Multiple Editions and Digital Criticism. Collecting multiple critical editions of the same text means building a "multitext," which is a "network of versions with a single, reconstructed root," so that scholars can compare different textual choices and conjectures produced by philologists. [44] This process involves a new way of conceiving literary criticism because it produces a representation and visualization of textual transmission completely different from print conventions, where the text that is reconstructed by the editor is separated from the critical apparatus that is printed at the bottom of the page. In addition, the inclusion of images of manuscripts, papyri, and other source materials allows the reader to have a dynamic visualization of the textual tradition and to perceive the different channels of both the transmission and philological production of the text that is usually hidden in the static, concise, and necessarily selective critical apparatuses of standard printed editions. [45] Producing a multitext, therefore, means producing multiple versions of the same text, which are the representation of the different steps of its transmission and reconstruction, from manuscript variants to philological conjectures. This process has fundamental consequences for the study of ancient sources in general and for fragmentary ones in particular, given that, while studying fragments and evaluating their distance from the original version, it is "imperative" to examine the manuscript variants of the source text, in order to see what can be attributed to the witness or to the transmission of the text across centuries. [46]

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[42] On OCR generated texts for classical Greek sources, see Stewart et al. 2007; Boschetti et al. 2009.

[43] A complex case of multiple citation schemes is provided by Athenaeus' *Deipnosophistae*, whose text can be quoted following either the Casaubon or Kaibel enumerations: see Lenfant 2007b, 384-85. A system for aligning citation schemes for Athenaeus' *Deipnosophistae* has been devised by the Perseus Digital Library, which has produced an experimental XML version of this work with both numerations by Casaubon and Kaibel: see Berti et al. 2009. On representing citations in a digital environment cf. Smith 2009.

[44] Blackwell-Crane 2009, 60. Cf. above note 41. The concept of multitext is the result of work conducted by the Homer Multitext Project of the Center for Hellenic Studies, which aims at producing a new digital representation of the textual tradition of the Homeric poems: see Dué-Ebbott 2009 and Smith 2010. On the technical aspects of the alignment of variants and conjectures to the text, see Boschetti 2007a and 2007b.

[45] Dué-Abbott 2009, 1 and 13-18. Cf. also Mordenti 2001, 42.

[46] Cf. Lenfant 2007a, 45.

The Fragment and its Embedding Context

When looking for fragments, it is possible to distinguish two main quotation schemes: 1) fragments of surviving texts; 2) fragments of not surviving texts. These schemes include various kinds of textual reproduction resulting from different witnesses' attitude to citations, and also on the fact that Greek sources date from a time where no quotation standard existed. In addition, we can also consider two other broad categories pertaining to the domain of textual reuse in ancient sources: 3) passages where the witness does not quote the source and the source does or does not survive; [47] 4) passages where quotations and paraphrases are not marked or are hard to find. [48]

In order to check the reliability of ancient citations and draw at least a shadowy spectrum of the quoting habits of classical authors, the starting point is to analyze quotations of surviving texts. As far as concerns Greek literature, one of the most representative works is Athenaeus' *Deipnosophistae*, which includes a huge collection of fragments of lost and preserved authors. Various studies have been devoted to collecting and comparing Athenaeus' quotations of surviving historians, such as Herodotus, Thucydides, and Xenophon (see Appendix 2-3). [49] Even if it is not possible to give a final and exhaustive judgment of his behaviour towards citations, these analyses allowed scholars to enumerate a series of patterns recurring in Athenaeus' quotations, including a wide typology of textual reproductions and linguistic features that can be helpful in identifying and classifying quotations of lost historians. [50] The collection of Xenophon's fragments has shown that Athenaeus' citations can be more or less reliable according to different subjects, while Pelling focused his research on Athenaeus' "transitional habits" of moving from one topic to the other while quoting different sources, and on the possibility of individuating in the *Deipnosophistae* "fragmentary clusters," which mean groups of quotations of particular authors collected together and arranged in the same topical framework of a section of the learned banquet. [51]

New technologies such as quotation identification are also helping to find citations in large digital libraries, such as Google Books and the Internet Archive, where many documents do not follow the conventions of academic publications and contain more or less accurate quotations without mentioning the source, or where citations cannot be automatically

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[47] See, e.g., the problem of the identification of lost works, both literary and documentary, used in the Aristotelian *Constitution of the Athenians*: see Rhodes 1981, 15-30. Cf. also Strasburger 1977, 27-30, on "das *anonyme* historische Gut in der Sekundärtradition."
[48] As, e.g., quotations and paraphrases of Plato in later literature: for a project aiming at investigating this kind of information, see below note 56.
[49] Ambaglio 1990; Pelling 2000; Lenfant 2007a; Maisonneuve 2007. On the importance of these "control studies," see Strasburger 1977, 22-24; Brunt 1980, 480-81; Schepens 1997a, 167 n. 66.
[50] Lenfant 2007a. On typographical conventions used to mark verbatim excerpts, paraphrases, and doubtful fragments in FGrH Continued, see Schepens 1998, xiii.
[51] Pelling 2000. On Xenophon see Maisonneuve 2007.

recognized as often happens in ancient sources. The aim of these methods is to provide links to primary materials that are fundamental to understanding secondary works, given that every quotation is only a far shadow of the original text. [52] These techniques have also begun to be applied to reference works on classical antiquity, providing initial methods for the automatic identification of quotations in secondary literature that have different structures due to their alteration from the original source, such as changed word order, omission, insertion, or substitution of terms, and term differences depending on case insensitivity, accent characters, changing punctuation, or spelling and data entry errors. [53]

Similar research has also been conducted on applying techniques already developed in other fields such as automatic plagiarism detection, text similarity searching in different documents, text reuse through paraphrase or indirect reference, and automatic allusion detection to classical literature. [54] In particular, the Perseus Digital Library has devised methods for discovering imitative textual allusions in a collection of classical Latin poetry and multilingual text reuse in literary texts. [55] At the same time, a new project called eAQUA is currently being developed by the University of Leipzig and aims at applying text-mining techniques to ancient texts, in order to provide a semantic reconstruction of lost works of the Atthidographers and Plato's quotations in later literature. [56]

The development of these techniques present challenging perspectives for identifying and representing quotations in ancient literature, enlarging our possibilities and capabilities of individuating quotation schemes that may in turn also be useful for identifying quotations of lost works and support more sophisticated interactions between scholars and digitized texts.

Secondary and Tertiary Sources

Collecting fragments also means looking for many other kinds of information directly or indirectly connected to fragmentary authors. These data are usually labelled as "secondary" and "tertiary sources," and may be summarized into the following fundamental categories: 1) *Loci Paralleli*, i.e. secondary ancient sources parallel to the witness of a fragment. Even if the relationship of a locus parallelus to the main quoter of a fragmentary text may involve many

[52] Kolak-Schilit 2008; Schilit-Kolak 2008.
[53] Ernst-Gerlach-Crane 2008.
[54] Ernst-Gerlach-Crane 2008, 79. For a survey of the most significant data pertaining to textual plagiarism in Greek historical fragments, see Ambaglio 2009.
[55] Bamman-Crane 2008b. Other work has also been done at the Perseus Project on searching for allusions between John Milton's *Paradise Lost* and Vergil's *Aeneid*, ranging from the most similar ones, such as translations, to the most oblique, like literary allusions: Bamman, D., and Crane, G. "Discovering Multilingual Text Reuse in Literary Texts" (whitepaper). For a computational model of text reuse of the gospels in the Greek New Testament, see Lee 2007.
[56] On the eAQUA (Extraktion von strukturiertem Wissen aus Antiken Quellen für die Altertumswissenschaft) project, see Büchler-Heyer-Gründer 2008.

aspects, loci paralleli form two principal groups: a) sources quoting or paraphrasing the same fragment (in most cases these sources are chronologically later than the witness); b) sources treating the same subject of the fragment. 2) Tertiary Sources, i.e. modern bibliography consisting of monographs, papers, encyclopedia, grammars, translations, and other bibliographical tools giving information and commentaries on a wide range of materials pertaining to the fragment, its author, and its source of transmission.

A digital representation of fragmentary texts should provide links to secondary and tertiary sources, identifying passages in articles and monographs related to the fragment and the context from which the fragment has been drawn. [57] As stated above, mass digitization projects are providing many collections of secondary and tertiary sources useful to classicists. Moreover, repositories like JSTOR and Project MUSE offer access to the titles of leading academic journals within a variety of disciplines, as well as monographs and other materials fundamental for scholarly activities: these archives are full-text searchable and offer many possibilities of interdisciplinary research, including high-quality images and interlinked citations and references. [58]

In addition to these resources, there are other projects and electronic publications for digital classicists developed by organizations such as The Stoa Consortium and founded on the principle of open access. One of the most significant Stoa projects is the Suda On Line (SOL), which is particularly important for those interested in building a digital collection of Greek fragmentary authors, because the Suda preserves a lot of fragments of classical authors, which in most cases can be classified as *loci paralleli*. The aim of the project is to create an on-line version of this encyclopedic lexicon, providing, for the first time, a translation and interpretive apparatus for each entry thanks to the international cooperative efforts of many scholars. [59] All of these resources represent the types of sources that should be included when devising a digital representation of fragmentary texts, in order to build a dynamic and interconnected corpus of primary, secondary, and tertiary sources.

Translation and Commentary

Two other fundamental elements of modern collections of fragmentary works that may receive a great improvement in digital libraries are translations and commentaries. [60] Translating texts means not only providing a service for those who do not have a good knowledge of ancient languages, but it is first of all an essential part of the scholarly

[57] Berti et al. 2009, 260.
[58] JSTOR: http://www.jstor.org. Project MUSE: http://muse.jhu.edu.
[59] On the project see Mahoney 2009.
[60] Old collections of fragments usually did not include translations and commentaries. One noteworthy exception is FHG, which includes a translation of the fragments into Latin, but without commentary. The first fragment edition including a commentary was devised by Jacoby, even if it lacks translations: see Schepens 1997a, 168; 1998, xiv; 2000, 16-17.

interpretation produced by the editor. Through the collection of multiple editions of the same work, a digital library will allow scholars to also consult multiple translations into multiple languages, comparing different interpretations and linguistic restitutions of the same passage. At a deeper level, aligning multiple editions enables us to create machine actionable dictionaries and dynamic lexica of Greek and Latin words and their corresponding terms in modern languages, providing an inestimable tool for scholars and for a wide range of linguistic, grammatical, and syntactic analyses. [61]

As far as concerns fragments, the commentary to the text is constituted by two fundamental tasks: the first is the effort to "deconstruct" the context that preserves the quotation in order to find the original characteristics of the fragment, and the second one is to try to "reconstruct" the fragment and the lost work to which it belonged. [62] As for textual variants, conjectures and translations, a digital library should provide every passage with links to multiple commentaries drawn from the editions of fragments and source texts. A true digital commentary, however, can be conceived as something broader than that, because it can include every possible annotation identifying every phenomenon pertaining to the text, thus providing traditional commentaries with a wide series of services, ranging from morphological and syntactic analysis to named entity identification and different explanations or disputes on every aspect of the textual content. [63]

Devising such a digital edition of fragmentary texts may also have important consequences for representing modern collections of ancient sources, i.e. source books that have been published for many years and provide scholars and students with reference texts on many different subjects concerning the classical world. The main problem to be faced with these kinds of collections is the arrangement of the sources. One significant example is represented by the collection of sources pertaining to the so-called Pentekontaetia, which was originally published by George Hill in 1897: in this text the editor arranged extracts of Greek historical sources by topic (without translation). [64] Fifty years later Russell Meiggs and Anthony Andrewes decided to published a revised edition of Hill's book, not only to add new epigraphical sources, but also to provide a new arrangement of the sources. In this new edition the extracts are presented according to the alphabetical order of their authors, and the book is supplied with full indexes dealing with many historical subject-matters concerning the Pentekontaetia, and also personal, geographical, and other types of proper names. [65]

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[61] Blackwell-Crane 2009, 46-47, 50, 65-71; Bamman-Crane 2008a and 2009. See also now Bamman-Babeu-Crane 2010.
[62] Schepens 1997a, 168.
[63] Blackwell-Crane 2009, 77.
[64] Hill 1897, vi. Space and cost reasons compelled the editor not to include passages from main sources, as Herodotus, Thucydides, and the Aristotelian *Constitution of the Athenians.*
[65] Hill 1951.

Even if these collections are inestimable tools for scholars and students, they depend on the limits imposed by printed editions, which compel an editor to choose only one criterion for arranging the texts and to select a number of sources extracted from their contexts. [66] A digital representation of such collections of primary ancient sources would allow scholars to go beyond these limits and provide a series of fundamental functions: immediate access to full texts in both original ancient languages and modern translations; multiple entry points into the information such as sources, events, names, and geography; items interrelated in different sources; a graphical synoptic representation of sources according to chronological order of events, geography, and category of information; models for collecting and arranging the ancient evidence for other periods, or subjects, or approaches; links to background information about the sources; and finally, images of inscriptions, coins, and manuscripts, plus maps, and other drawings. [67]

Conclusion

Devising a model and an architecture for representing fragmentary texts in a digital library is a fundamental contribution toward a systematic and structural analysis of the multiple layers of production and interpretation that constitute a textual fragment. In particular, the two most important goals of such a work are: 1) Representing a textual fragment as a hypertext, i.e. as a text derived from another text and interconnected to many other different typologies of texts: this means envisioning and building an expansible set of links that express multiple relations of the text of the fragment with the text that embeds and transmits it, and with a wide range of secondary and tertiary sources (i.e., ancient evidence, commentaries, and many other kinds of bibliographical tools). 2) Representing a textual fragment as a multitext, i.e. as the result of a work of stratification of manuscript variants and scholarly conjectures that form the path through which the fragment has survived and without which it wouldn't exist as evidence.

Bibliography

Albonico, S. 2005. "Sull'utilizzo della codifica TEI in filologia." In *Il manuale TEI Lite. Introduzione alla codifica elettronica dei testi letterari*, ed. F. Ciotti, 239-56. Milano: Edizioni Sylvestre Bonnard.

Ambaglio, D. 1990. "I Deipnosofisti di Ateneo e la tradizione storica frammentaria." Athenaeum 78(1):51-64.

[66] Another example is provided by a recent collection of Atthidographers' fragments published by Harding 2008. In this case the author presents the fragments only in English, ordering them not by author (as in FGrH), but by topic and date.

[67] See Martin 2009 for a project aiming at representing fragmentary sources on the Pentekontaetia in a digital library.

_. 2009. “Nelle pieghe dei frammenti degli storici greci, tra falsificazioni e plagi.” In *Tradizione e trasmissione degli storici greci frammentari*, ed. E. Lanzillotta, and V. Costa, and G. Ottone, 543-62. Tivoli: Edizioni Tored.

Babeu, A. 2008. *Building a “FRBR-Inspired” Catalog: the Perseus Digital Library Experience*. The Perseus Digital Library.
Available at http://www.perseus.tufts.edu/publications/PerseusFRBRExperiment.pdf

_.2010. *“Rome Wasn’t Digitized in a Day”: Building a Cyberinfrastructure for Digital Classicists*. CLIR Report.
Available at http://www.clir.org/activities/details/infrastructure.html

Bamman, D., and Crane, G. 2008a. “Building a Dynamic Lexicon from a Digital Library.” *In Proceedings of the 2008 Joint International Conference on Digital libraries (JCDL ‘08). Pittsburgh, PA, 11-20.* New York, NY: ACM Digital Library.
Available at http://dl.tufts.edu/view_pdf.jsp?pid=tufts:PB.001.002.00003

_. 2008b. “The Logic and Discovery of Textual Allusion.” In *Proceedings of the Second Workshop on Language Technology for Cultural Heritage Data (LaTeCH 2008). Marrakech, Morocco*. Marrakech: ELRA.
Available at http://dl.tufts.edu/view_pdf.jsp?pid=tufts:PB.001.002.00004

_. 2009. “Computational Linguistics and Classical Lexicography.” Digital Humanities Quarterly 3(1).
Available at http://www.digitalhumanities.org/dhq/vol/3/1/000033/000033.html

Bamman, D., and Babeu, A., and Crane, G. 2010. “Transferring Structural Markup Across Translations Using Multilingual Alignment and Projection”. In *Proceedings of the 10th Annual Joint Conference on Digital libraries (JCDL ‘10). Gold Coast, Queensland, Australia*, 11-20. New York, NY: ACM Digital Library.
Available at http://www.perseus.tufts.edu/publications/jcdl27-bamman.pdf

Benjamins, V. R. et al. 2004. “Cultural Heritage and the Semantic Web.” In *The Semantic Web: Research and Applications. First European Semantic Web Symposium, ESWS 2004, Heraklion, Crete, Greece. Proceedings*, 433-44. Berlin - Heidelberg: Springer Verlag.
Available at http://www.springerlink.com/content/nqbe4me9rvtwfwf4/

Berners-Lee, T., and Hendler, J., and Lassila, O. 2001. “The Semantic Web.” Scientific American 284(5):34-43.
Available at http://www.scientificamerican.com/article.cfm?id=the-semantic-web

Berti, M. et al. 2009. “Collecting Fragmentary Authors in a Digital Library.” In *Proceedings of the*

2009 Joint International Conference on Digital libraries (JCDL '09). Austin, TX, 259-62. New York, NY: ACM Digital Library.
Available at http://www.perseus.tufts.edu/publications/JCDL09_sp.pdf

Blackwell, C., and Crane, G. 2009. "Cyberinfrastructure, the Scaife Digital Library and Classics in a Digital Age." Digital Humanities Quarterly 3(1).
Available at http://www.digitalhumanities.org/dhq/vol/3/1/000035/000035.html

Bodard, G. 2010. "EpiDoc: Epigraphic Documents in XML for Publication and Interchange". In *Epigraphy on Stone. Epigraphic Research and Electronic Archives*, ed. by F. Feraudi-Gruénais, 101-18. Lanham: Lexongton Books.

Bodard, G., and Mahony, S. 2010. *Digital Research in the Study of Classical Antiquity*. Farnham: Ashgate.

Bolter, J. D. 1984. *Turing's Man. Western Culture in the Computer Age*. Chapel Hill: The University of North Carolina Press.

_. 1991. "The Computer, Hypertext, and Classical Studies." AJP 112(4):541-45.

_. 2001[2]. *Writing Space. Computers, Hypertext, and the Remediation of Print*. Mahwah, NJ and London: Lawrence Erlbaum Associates, Publishers.

Boschetti, F. 2007a. "Alignment of Variant Readings for Linkage of Multiple Annotations." In *Chatreššar 2007. Electronic Corpora of Ancient Languages. Proceedings of the International Conference. Prague*, ed. P. Zemánek et al., 11-24. Prague: Charles University.

_. 2007b. "Methods to Extend Greek and Latin Corpora with Variants and Conjectures. Mapping Critical Apparatuses onto Reference Text." In *Proceedings of the Corpus Linguistics Conference (CL 2007). University of Birmingham, UK*, 1-11. University of Birmingham.
Available at http://ucrel.lancs.ac.uk/publications/CL2007/paper/150_Paper.pdf

Boschetti, F. et al. 2009. "Improving OCR Accuracy for Classical Critical Editions." In *Proceedings of the 13th European Conference on Research and Advanced Technology for Digital Libraries (ECDL 2009). Corfu, September 27 – October 2, 2009*, 156-67. Berlin - Heidelberg: Springer Verlag.
Available at http://www.springerlink.com/content/v47r4148730271m8/

Bowersock, G. W. 1997. "Jacoby's Fragments and Two Greek Historians of Pre-Islamic Arabia." In Most 1997, 173-85.

Broggiato, M. 2000. "Athenaeus, Crates and Attic Glosses. A Problem of Attribution." In *Athenaeus and his World. Reading Greek Culture in the Roman Empire*, ed. D. Braund and J.

Wilkins, 364-70. Exeter: University of Exeter Press.

Brunt, P. A. 1980. "On Historical Fragments and Epitomes". CQ 30(2):477-94.

Büchler, M., and Heyer, G., and Gründer, S. 2008. "eAQUA - Bringing Modern Text Mining Approaches to Two Thousand Years Old Ancient Texts." In *e-Humanities - An Emerging Discipline: Workshop in the 4th IEEE International Conference on e-Science.* Indianapolis, IN. Available at http://www.clarin.eu/system/files/2008-09-05-IEEE2008-eAQUA-project.pdf

Bünte, M. "Text Mining with the Atthidographers." In *Das Portal eAQUA – Neue Methoden in der geisteswissenschaftlichen Forschung I*, ed. C. Schubert, and G. Heyer, 10-25. Leizpig: Universität Leipzig.
Available at http://www.eaqua.net/public.php

Burnard, L., and Bauman, S. 2009. TEI P5: *Guidelines for Electronic Text Encoding and Interchange*. Oxford - Providence - Charlottesville - Nancy: The TEI Consortium.
Available at http://www.tei-c.org/release/doc/tei-p5-doc/en/Guidelines.pdf

Cayless, H. et al. 2009. "Epigraphy in 2017." Digital Humanities Quarterly 3(1).
Available at http://www.digitalhumanities.org/dhq/vol/3/1/000030/000030.html

Ciotti, F. 2005. "La codifica del testo, XML e la Text Encoding Initiative." In *Il manuale TEI Lite. Introduzione alla codifica elettronica dei testi letterari*, ed. F. Ciotti, 9-42. Milano: Edizioni Sylvestre Bonnard.
Available at http://www.tei-c.org/Guidelines/Customization/Lite/teiu5_it.xml

Crane, G. 1987. "From the Old to the New: Integrating Hypertext into Traditional Scholarship." In *Proceedings of the ACM Hypertext 87 Conference. Chapel Hill, NC*, 51-55. New York, NY: ACM Digital Library.
Available at http://doi.acm.org/10.1145/317426.317432

_. 2010. "Give us editors! Re-inventing the edition and re-thinking the humanities". In *Online Humanities Scholarship: The Shape of Things to Come. Proceedings of the Mellon Foundation Online Humanities Conference at the University of Virginia, March 26-28, 2010*, ed. J. McGann, 137-170. Houston: Rice University Press.
Available at http://rup.rice.edu/cnx_content/shape/m34316.html

Crane, G., and Bamman, D. 2007. "Cyberinfrastructure and the Next Generation of Ancient Corpora." In *Chatreššar 2007. Electronic Corpora of Ancient Languages. Proceedings of the International Conference. Prague*, ed. P. Zemánek et al., 43-57. Prague: Charles University.

Crane, G., and Seales, B., and Terras, M. 2009. "Cyberinfrastructure for Classical Philology."

Digital Humanities Quarterly 3(1).
Available at http://www.digitalhumanities.org/dhq/vol/3/1/000023/000023.html

Crane, G. et al. 1991. "Composing Culture: the Authority of an Electronic Text." Current Anthropology 32(3):293-311.

_. 2006. "Beyond Digital Incunabula: Modeling the Next Generation of Digital Libraries." In *Proceedings of the 10th European Conference on Research and Advanced Technology for Digital Libraries (ECDL 2006). Alicante, Spain*, 341-52. Berlin - Heidelberg: Springer Verlag.
Available at http://dl.tufts.edu/view_pdf.jsp?pid=tufts:gcrane-2006.00002

_. 2007. "ePhilology: When the Books Talk to their Readers." In *A Companion to Digital Literary Studies*, ed. R. Siemens and S. Schreibman, 29-64. Malden: Blackwell Publishing.
Available at http://www.digitalhumanities.org/companionDLS/

_. 2009a. "Tools for Thinking: ePhilology and Cyberinfrastructure." In *Working Together or Apart: Promoting the Next Genereation of Digital Scholarship: Report of a Workshop Cosponsored by the Council on Library and Information Resources and The National Endowment for the Humanities*, 16-26. Washington, D.C.: Council on Library and Information Resources.
Available at http://www.clir.org/activities/digitalscholar2/crane11_11.pdf

_. 2009b. "Classics in the Million Book Library." Digital Humanities Quarterly 3(1).
Available at http://www.digitalhumanities.org/dhq/vol/3/1/000034/000034.html

Dionisotti, A. C. 1997. "On Fragments in Classical Scholarship." In Most 1997, 1-33.

Dué, C., and Ebbott, M. 2009. "Digital Criticism: Editorial Standards for the Homer Multitext." In Digital Humanities Quarterly 3(1).
Available at http://www.digitalhumanities.org/dhq/vol/3/1/000029/000029.html

Ernst-Gerlach, A., and Crane, G. 2008. "Identifying Quotations in Reference Works and Primary Materials." In *Proceedings of the 12th European Conference on Research and Advanced Technology for Digital Libraries (ECDL 2008). Århus, Denmark*, 78-87. Berlin - Heidelberg: Springer Verlag.
Available at http://www.springerlink.com/index/7626500277722t16.pdf

Fiormonte, D. 2003. Scrittura e filologia nell'era digitale. Torino: Bollati Boringhieri.

Genette, G. 1997. *Palimpsests. Literature in the Second Degree*. Lincoln - London: University of Nebraska Press. [original edition G. Genette, *Palimpsestes. La littérature au second degré.* 1987. Paris: Éditions du Seuil].

Gumbrecht, H. U. 1997. "Eat Your Fragment! About Imagination and the Restitution of Texts."

In Most 1997, 315-27.

Harding, P. H. 2008. *The Story of Athens. The Fragments of the Local Chronicle of Attica*. New York: Routledge.

Hardwick, L. 2000. "Electrifying the Canon: The Impact of Computing on Classical Studies." Computers and the Humanities 34:279-95.
Available at http://www.springerlink.com/index/P3532154W30M541T.pdf

Hendler, J. et al. 2008. "Web Science: An Interdisciplinary Approach to Understanding the Web." Communications of the ACM 51(7):60-69.
Available at http://portal.acm.org/citation.cfm?id=1364782.1364798

Hill, G. F. 1897. *Sources for Greek History Between the Persian and the Peloponnesian Wars*. Oxford: The Clarendon Press.
Available at http://www.archive.org/details/sourcesforgreek01hillgoog

Hill, G. F. 1951. *Sources for Greek History Between the Persian and Peloponnesian Wars*. Collected and Arranged by G. F. Hill. A New Edition by R. Meiggs and A. Andrewes. Oxford: The Clarendon Press.

Ireland, S. 1976. "The Computer and Its Role in Classical Research." G&R 23(1):40-54.

Kolak, O., and Schilit, B. N. 2008. "Generating Links by Mining Quotations." In *Proceedings of the nineteenth ACM conference on Hypertext and hypermedia (HT 2008). Pittsburgh, Pennsylvania*, 117-26. New York, NY: ACM Digital Library.
Available at http://portal.acm.org/citation.cfm?id=1379117

Kraus, K. 2009. "Conjectural Criticism: Computing Past and Future Texts." In Digital Humanities Quarterly 3(4).
Available at http://www.digitalhumanities.org/dhq/vol/3/4/000069/000069.html

Laks, A. 1997. "Du témoignage comme fragment." In Most 1997, 237-72.

Landow, G. P. 2006. *Hypertext 3.0. Critical Theory and New Media in an Era of Globalization*. Baltimore: John Hopkins University Press.

Lanzillotta, E. 2006. "La nuova collana «I Frammenti degli Storici Greci»." In *Aspetti dell'opera di Felix Jacoby*, ed. C. Ampolo, 287-92. Pisa: Scuola Normale Superiore.

Lee, J. 2007. "A Computational Model of Text Reuse in Ancient Literary Texts." In *Proceedings of the 45th Annual Meeting of the Association of Computational Linguistics (June 2007). Prague*, 472-79. Association for Computational Linguistics.

Available at http://groups.csail.mit.edu/sls//publications/2007/P07-1060.pdf

Lenfant, D. 2007a. "Les «fragments» d'Hérodote dans le Deipnosophistes." In *Athénée et les fragments d'historiens. Actes du colloque de Strasbourg (16-18 juin 2005)*, ed. D. Lenfant, 43-72. Paris: De Boccard.

Lenfant, D. 2007b. "Athénée: texte et systèmes de référence." In *Athénée et les fragments d'historiens. Actes du colloque de Strasbourg (16-18 juin 2005)*, ed. D. Lenfant, 383-85. Paris: De Boccard.

Mahoney, A. 2009. "Tachypaedia Byzantina: The Suda On Line as Collaborative Encyclopedia." Digital Humanities Quarterly 3(1).
Available at http://www.digitalhumanities.org/dhq/vol/3/1/000025/000025.html

Maisonneuve, C. 2007. Les «fragments» de Xénophon dans les Deipnosophistes. In *Athénée et les fragments d'historiens. Actes du colloque de Strasbourg (16-18 juin 2005)*, ed. D. Lenfant, 73-106. Paris: De Boccard.

Marincola, J. 2000. "Bonnechère, P. Die Fragmente der griechischen Historiker. Indexes of Part I, II, and III. Indexes of Ancient Authors. Leiden, Brill, 1999." BMCR 2000.01.09.
Available at http://bmcr.brynmawr.edu/2000/2000-01-09.html

_. 2005. "F. Jacoby, Die Fragmente der griechischen Historiker. CD-ROM Edition. Leiden, Brill, 2004." BMCR 2005.08.37.
Available at http://bmcr.brynmawr.edu/2005/2005-08-37.html

Martin, Th. R. 2009. "The Challenges for Education and Research of the Fragmentary State of the Primary Sources for the Golden Age of Ancient Greek History." In *Proceedings of the International Symposium on the Scaife Digital Library, Lexington, KY, March 13, 2009*. (forthcoming).

McManus, B. F., and Rubino, C. A. 2003. "Classics and Internet Technology." AJP 124(4): 601-08.

Mordenti, R. 2001. *Informatica e critica dei testi*. Roma: Bulzoni Editore.

Most, G. W. 1997. *Collecting Fragments - Fragmente sammeln*. Göttingen: Vandenhoeck & Ruprecht.

Numerico, T., and Fiormonte, D., and Tomasi. 2010. F., *L'umanista digitale*. Bologna: Il Mulino.

OED^2 = *The Oxford English Dictionary*, by J. A. Simpson and E. S. C. Weiner, I-XX, Oxford 1989^2.

Parodi, M., and Ferrara, A. 2002. "XML, semantic web e rappresentazione della conoscenza."

Mondo Digitale 3:42-51.
Available at http://www.mondodigitale.net/Rivista/motore/parodi_p.42-51.pdf

Pelling, C. 2000. "Fun with Fragments. Athenaeus and the Historians." In *Athenaeus and his World. Reading Greek Culture in the Roman Empire*, ed. D. Braund and J. Wilkins, 171-90. Exeter: University of Exeter Press.

Polacco, M. 1998. *L'intertestualità*. Roma-Bari: Editori Laterza.

Pritchard, D. 2008. "Working Papers, Open Access, and Cyber-infrastructure in Classical Studies." Literary and Linguistic Computing 23(2):149-62.
Available at http://llc.oxfordjournals.org/cgi/content/abstract/23/2/149

Rhodes, P. J. 1981. *A Commentary on the Aristotelian Athenaion Politeia*. Oxford: Oxford University Press.

Romanello, M. "The Digital Critical Edition of Fragments. Theoretical Problems and Technical Solutions". In Proceeding Verona 2010 (forthcoming).

Romanello, M. et al. 2009a. "When Printed Hypertexts Go Digital: Information Extraction from the Parsing of Indices." In *Hypertext 2009: Proceedings of the 20th ACM Conference on Hypertext and Hypermedia, Turin, Italy*, 357-58. New York, NY: ACM Digital Library.
Available at http://www.perseus.tufts.edu/publications/ht159-romanello.pdf

_. 2009b. "Rethinking Critical Editions of Fragmentary Texts by Ontologies." In *ELPUB 2009: 13th International Conference on Electronic Publishing: Rethinking Electronic Publishing: Innovation in Communication Paradigms and Technologies, Milan, Italy*, 155-74.
Available at http://www.perseus.tufts.edu/publications/elpub2009.pdf

Rosenzweig, R. 2005. "Should Historical Scholarship Be Free?" AHA Perspectives 43.
Available at http://www.historians.org/perspectives/issues/2005/0504/0504vic1.cfm

_. 2006. "Can History Be Open Source? Wikipedia and the Future of the Past". The Journal of American History 93:117-46.

Schepens, G. 1997a. "Jacoby's FGrHist: Problems, Methods, Prospects." In Most 1997, 144-72.

_. 1997b. "Timaeus FGrHist 566 F28 Revisited: Fragmenta or Testimonia?" Simblos 2:71-83.

_. 1998. "Prolegomena." In *Die Fragmente der Griechischen Historiker Continued, Part IV, IVA1, VII-XXI*. Leiden - Boston - Köln: Brill.

_. 2000. "Probleme der Fragmentedition. (Fragmente der griechischen Historiker)." In *Vom Text*

zum Buch, ed. C. Reitz, 1-29. St. Katharinen: Scripta Mercaturae Verlag.

Schilit, B. N., and Kolak, O. 2008. "Exploring a Digital Library through Key Ideas." In *Proceedings of the 2008 Joint Conference on Digital Libraries (JCDL '08). Pittsburgh, PA*, 177-86. New York, NY: ACM Digital Library.
Available at http://portal.acm.org/citation.cfm?id=1378920

Schubert, C. 2010. "Zitationsprofile, Suchstrategien und Forschungsrichtungen." In *Das Portal eAQUA – Neue Methoden in der geisteswissenschaftlichen Forschung I*, ed. C. Schubert, and G. Heyer, 42-55. Leizpig: Universität Leipzig.
Available at http://www.eaqua.net/public.php

Shadbolt, N., et al. 2006. "The Semantic Web Revisited." IEEE Intelligent Systems 21(3):96-101.
Available at http://portal.acm.org/citation.cfm?id=1155373

Smith, N. 2009. "Citation in Classical Studies." Digital Humanities Quarterly 3(1).
Available at http://www.digitalhumanities.org/dhq/vol/3/1/000028/000028.html

Smith, N. 2010. "Digital Infrastructure and the Homer Multitext Project". In *Digital Research in the Study of Classical Antiquity*, ed. G. Bodard and S. Mahony, 121-37. Farnham: Ashgate.

Stewart, G. et al. 2007. "A New Generation of Textual Corpora. Mining Corpora from Very Large Collections." In *Proceedings of the 2007 Joint Conference on Digital Libraries (JCDL '07). Vancouver, BC*, 356-65. New York, NY: ACM Digital Library.
Available at http://portal.acm.org/citation.cfm?id=1255175.1255247

Strasburger, H. 1977. "Umblick im Trümmerfeld der griechischen Geschichtsschreibung." In *Historiographia Antiqua. Commentationes Lovanienses in honorem W. Peremans septuagenarii editae*, 3-52. Leuven: Leuven University Press.

Trillini, R. H., and Quassdorf, S. 2010. "A 'key to all quotations'? A corpus-based parameter model of intertextuality". Literary and Linguistic Computing 25(3):269-286.

Welshons, M. 2006. *Our Cultural Commonwealth. The Report of the American Council of Learned Societies Commission on Cyberinfrastructure for the Humanities and Social Sciences*. American Council of Learned Societies.
Available at www.acls.org/cyberinfrastructure/ourculturalcommonwealth.pdf

Willinsky, J. 2005. *The Access Principle. The Case for Open Access to Research and Scholarhip*. Cambridge, MA: MIT Press.

Worthington, I. 2005. "Worthington on Marincola on Jacoby's FGrH." BMCR 2005.09.24.
Available at http://bmcr.brynmawr.edu/2005/2005-09-24.html

Wright, L. 1994. “Classicists on the Via Electronica.” TAPA 124:337-40.

Appendix 1

In this appendix we publish the text of Plutarch, *Life of Theseus* 24-28 according to the edition of Perrin: *Plutarch's Lives*, I, ed. B. Perrin. Cambridge, MA: Harvard University Press. 1959.

Plutarch, *Theseus* 24–28 (Perrin)

24 (1) Μετὰ δὲ τὴν Αἰγέως τελευτὴν μέγα καὶ θαυμαστὸν ἔργον εἰς νοῦν βαλόμενος συνῴκισε τοὺς τὴν Ἀττικὴν κατοικοῦντας εἰς ἓν ἄστυ, καὶ μιᾶς πόλεως ἕνα δῆμον ἀπέφηνε, τέως σποράδας ὄντας καὶ δυσανακλήτους πρὸς τὸ κοινὸν πάντων συμφέρον, ἔστι δ' ὅτε καὶ διαφερομένους ἀλλήλοις καὶ πολεμοῦντας. **(2)** ἐπιὼν οὖν ἀνέπειθε κατὰ δήμους καὶ γένη, τῶν μὲν ἰδιωτῶν καὶ πενήτων ἐνδεχομένων ταχὺ τὴν παράκλησιν αὐτοῦ, τοῖς δὲ δυνατοῖς ἀβασίλευτον πολιτείαν προτείνων καὶ δημοκρατίαν αὐτῷ μόνον ἄρχοντι πολέμου καὶ νόμων φύλακι χρησομένην, τῶν δὲ ἄλλων παρέξουσαν ἅπασιν ἰσομοιρίαν. **(3)** τοὺς μὲν ταῦτα ἔπειθεν, οἱ δὲ τὴν δύναμιν αὐτοῦ δεδιότες μεγάλην οὖσαν ἤδη καὶ τὴν τόλμαν, ἐβούλοντο πειθόμενοι μᾶλλον ἢ βιαζόμενοι ταῦτα συγχωρεῖν. καταλύσας οὖν τὰ παρ' ἑκάστοις πρυτανεῖα καὶ βουλευτήρια καὶ ἀρχάς, ἓν δὲ ποιήσας ἅπασι κοινὸν ἐνταῦθα πρυτανεῖον καὶ βουλευτήριον ὅπου νῦν ἵδρυται τὸ ἄστυ, τήν τε πόλιν Ἀθήνας προσηγόρευσε καὶ Παναθήναια θυσίαν ἐποίησε κοινήν. **(4)** ἔθυσε δὲ καὶ Μετοίκια τῇ ἕκτῃ ἐπὶ δέκα τοῦ Ἑκατομβαιῶνος, ἣν ἔτι νῦν θύουσι. καὶ τὴν βασιλείαν ἀφεὶς, ὥσπερ ὡμολόγησε, διεκόσμει τὴν πολιτείαν ἀπὸ θεῶν ἀρχόμενος· ἦκε γὰρ αὐτῷ χρησμὸς ἐκ Δελφῶν (Parke-Wormell 2.154) μαντευομένῳ περὶ τῆς πόλεως·

(5) Αἰγείδη Θησεῦ, Πιτθηΐδος ἔκγονε κούρης,
πολλαῖς τοι πολίεσσι πατὴρ ἐμὸς ἐγκατέθηκε
τέρματα καὶ κλωστῆρας ἐν ὑμετέρῳ πτολιέθρῳ.
ἀλλὰ σὺ μή τι λίην πεπονημένος ἔνδοθι θυμὸν
βουλεύειν· ἀσκὸς γὰρ ἐν οἴδματι ποντοπορεύσεις.

τοῦτο δὲ καὶ Σίβυλλαν (Hendess 23) ὕστερον ἀποστοματίσαι πρὸς τὴν πόλιν ἱστοροῦσιν, ἀναφθεγξαμένην·

Ἀσκὸς βαπτίζῃ· δῦναι δέ τοι οὐ θέμις ἐστίν.

25 (1) Ἔτι δὲ μᾶλλον αὐξῆσαι τὴν πόλιν βουλόμενος ἐκάλει πάντας ἐπὶ τοῖς ἴσοις, καὶ τὸ "Δεῦρ' ἴτε πάντες λεῴ" κήρυγμα Θησέως γενέσθαι φασὶ πανδημίαν τινὰ καθιστάντος. οὐ μὴν ἄτακτον οὐδὲ μεμιγμένην περιεῖδεν ὑπὸ πλήθους ἐπιχυθέντος ἀκρίτου γενομένην τὴν δημοκρατίαν, ἀλλὰ πρῶτος ἀποκρίνας χωρὶς εὐπατρίδας καὶ γεωμόρους καὶ δημιουργούς, **(2)** εὐπατρίδαις δὲ γινώσκειν τὰ θεῖα καὶ παρέχειν ἄρχοντας ἀποδοὺς καὶ νόμων διδασκάλους εἶναι

καὶ ὁσίων καὶ ἱερῶν ἐξηγητάς, τοῖς ἄλλοις πολίταις ὥσπερ εἰς ἴσον κατέστησε, δόξῃ μὲν εὐπατριδῶν, χρείᾳ δὲ γεωμόρων, πλήθει δὲ δημιουργῶν ὑπερέχειν δοκούντων. ὅτι δὲ πρῶτος ἀπέκλινε πρὸς τὸν ὄχλον, ὡς Ἀριστοτέλης (*Ath.Pol.* 41.2; F 384 Rose[3]) φησί, καὶ ἀφῆκε τὸ μοναρχεῖν, ἔοικε μαρτυρεῖν καὶ Ὅμηρος (*Ilias* 2.547) ἐν νεῶν καταλόγῳ μόνους Ἀθηναίους δῆμον προσαγορεύσας. **(3)** Ἔκοψε δὲ καὶ νόμισμα, βοῦν ἐγχαράξας, ἢ διὰ τὸν Μαραθώνιον ταῦρον, ἢ διὰ τὸν Μίνω στρατηγόν, ἢ πρὸς γεωργίαν τοὺς πολίτας παρακαλῶν. ἀπ' ἐκείνου δέ φασι τὸ ἑκατόμβοιον καὶ τὸ δεκάβοιον ὀνομασθῆναι. προσκτησάμενος δὲ τῇ Ἀττικῇ τὴν Μεγαρικὴν βεβαίως, τὴν θρυλουμένην ἐν Ἰσθμῷ στήλην ἔστησεν, ἐπιγράψας τὸ διορίζον ἐπίγραμμα τὴν χώραν δυσὶ τριμέτροις, ὧν ἔφραζε τὸ μὲν πρὸς ἕω

Τάδ' οὐχὶ Πελοπόννησος, ἀλλ' Ἰωνία·

τὸ δὲ πρὸς ἑσπέραν

Τάδ' ἐστὶ Πελοπόννησος, οὐκ Ἰωνία.

(4) καὶ τὸν ἀγῶνα πρῶτος ἔθηκε κατὰ ζῆλον Ἡρακλέους, ὡς δι' ἐκεῖνον Ὀλύμπια τῷ Διΐ, καὶ δι' αὐτὸν Ἴσθμια τῷ Ποσειδῶνι φιλοτιμηθεὶς ἄγειν τοὺς Ἕλληνας. ὁ γὰρ ἐπὶ Μελικέρτῃ τεθεὶς αὐτόθι νυκτὸς ἐδρᾶτο, τελετῆς ἔχων μᾶλλον ἢ θέας καὶ πανηγυρισμοῦ τάξιν. ἔνιοι δέ φασιν ἐπὶ Σκείρωνι τὰ Ἴσθμια τεθῆναι, τοῦ Θησέως ἀφοσιουμένου τὸν φόνον διὰ τὴν συγγένειαν· Σκείρωνα γὰρ υἱὸν εἶναι Κανήθου καὶ Ἡνιόχης τῆς Πιτθέως. **(5)** οἱ δὲ Σίνιν, οὐ Σκείρωνα, καὶ τὸν ἀγῶνα τεθῆναι διὰ τοῦτον ὑπὸ Θησέως, οὐ δι' ἐκεῖνον. ἔταξεν οὖν καὶ διωρίσατο πρὸς τοὺς Κορινθίους Ἀθηναίων τοῖς ἀφικνουμένοις ἐπὶ τὰ Ἴσθμια παρέχειν προεδρίαν ὅσον ἂν τόπον ἐπίσχῃ καταπετασθὲν τὸ τῆς θεωρίδος νεὼς ἱστίον, ὡς Ἑλλάνικος (FHG I 55 fr. 76 = FGrH 4 F 165 = FGrH 323a F 15) καὶ Ἄνδρων ὁ Ἁλικαρνασεὺς (FGrH 10 F 6) ἱστορήκασιν.

26 (1) Εἰς δὲ τὸν πόντον ἔπλευσε τὸν Εὔξεινον, ὡς μὲν Φιλόχορος (FHG I 392 fr. 49 = FGrH 328 F 110) καί τινες ἄλλοι λέγουσι, μεθ' Ἡρακλέους ἐπὶ τὰς Ἀμαζόνας συστρατεύσας, καὶ γέρας Ἀντιόπην ἔλαβεν· οἱ δὲ πλείους, ὧν ἐστὶ καὶ Φερεκύδης (FGrH 3 F 151) καὶ Ἑλλάνικος (FHG I 55 fr. 76 = FGrH 4 F 166 = FGrH 323a F 16a) καὶ Ἡρόδωρος (FGrH 31 F 25a), ὕστερόν φασιν Ἡρακλέους ἰδιόστολον πλεῦσαι τὸν Θησέα καὶ τὴν Ἀμαζόνα λαβεῖν αἰχμάλωτον, πιθανώτερα λέγοντες. οὐδεὶς γὰρ ἄλλος ἱστόρηται τῶν μετ' αὐτοῦ στρατευσάντων Ἀμαζόνα λαβεῖν αἰχμάλωτον. **(2)** Βίων (FHG II 19 fr. 1 = FGrH 14 F 2 = FGrH 332 F 2) δὲ καὶ ταύτην παρακρουσάμενον οἴχεσθαι λαβόντα· φύσει γὰρ οὔσας τὰς Ἀμαζόνας φιλάνδρους οὐτε φυγεῖν τὸν Θησέα προσβάλλοντα τῇ χώρᾳ, ἀλλὰ καὶ ξένια πέμπειν· τὸν δὲ τὴν κομίζουσαν ἐμβῆναι παρακαλεῖν εἰς τὸ πλοῖον· ἐμβάσης δ' ἀναχθῆναι. Μενεκράτης (FHG II 345 fr. 8 = FGrH 701 F 1) δέ τις, ἱστορίαν περὶ Νικαίας τῆς ἐν Βιθυνίᾳ πόλεως ἐκδεδωκώς, Θησέα φησὶ τὴν Ἀντιόπην ἔχοντα διατρῖψαι περὶ τούτους τοὺς τόπους· **(3)** τυγχάνειν δὲ συστρατεύοντας αὐτῷ τρεῖς νεανίσκους ἐξ Ἀθηνῶν ἀδελφοὺς ἀλλήλων, Εὔνεων καὶ Θόαντα καὶ Σολόεντα. τοῦτον οὖν

ἐρῶντα τῆς Ἀντιόπης καὶ λανθάνοντα τοὺς ἄλλους, ἐξειπεῖν πρὸς ἕνα τῶν συνήθων· ἐκείνου δὲ περὶ τούτων ἐντυχόντος τῇ Ἀντιόπῃ, τὴν μὲν πεῖραν ἰσχυρῶς ἀποτρίψασθαι, τὸ δὲ πρᾶγμα σωφρόνως ἅμα καὶ πρᾴως ἐνεγκεῖν καὶ πρὸς τὸν Θησέα μὴ κατηγορῆσαι. **(4)** τοῦ δὲ Σολόεντος ὡς ἀπέγνω ῥίψαντος ἑαυτὸν εἰς ποταμόν τινα καὶ διαφθαρέντος, ᾐσθημένον τότε τὴν αἰτίαν καὶ τὸ πάθος τοῦ νεανίσκου τὸν Θησέα βαρέως ἐνεγκεῖν, καὶ δυσφοροῦντα λόγιόν τι πυθόχρηστον ἀνενεγκεῖν πρὸς ἑαυτόν· εἶναι γὰρ αὐτῷ προστεταγμένον ἐν Δελφοῖς ὑπὸ τῆς Πυθίας (Parke-Wormell 2.411), ὅταν ἐπὶ ξένης ἀνιαθῇ μάλιστα καὶ περίλυπος γένηται, πόλιν ἐκεῖ κτίσαι καὶ τῶν ἀμφ’ αὐτόν τινας ἡγεμόνας καταλιπεῖν. **(5)** ἐκ δὲ τούτου τὴν μὲν πόλιν, ἣν ἔκτισεν, ἀπὸ τοῦ θεοῦ Πυθόπολιν προσαγορεῦσαι, Σολόεντα δὲ τὸν πλησίον ποταμὸν ἐπὶ τιμῇ τοῦ νεανίσκου. καταλιπεῖν δὲ καὶ τοὺς ἀδελφοὺς αὐτοῦ, οἷον ἐπιστάτας καὶ νομοθέτας, καὶ σὺν αὐτοῖς Ἕρμον ἄνδρα τῶν Ἀθήνησιν εὐπατριδῶν· ἀφ’ οὗ καὶ τόπον Ἑρμοῦ καλεῖν οἰκίαν τοὺς Πυθοπολίτας, οὐκ ὀρθῶς τὴν δευτέραν συλλαβὴν περισπῶντας καὶ τὴν δόξαν ἐπὶ θεὸν ἀπὸ ἥρωος μετατιθέντας.

27 (1) Πρόφασιν μὲν οὖν ταύτην ὁ τῶν Ἀμαζόνων πόλεμος ἔσχε· φαίνεται δὲ μὴ φαῦλον αὐτοῦ μηδὲ γυναικεῖον γενέσθαι τὸ ἔργον. οὐ γὰρ ἂν ἐν ἄστει κατεστρατοπέδευσαν οὐδὲ τὴν μάχην συνῆψαν ἐν χρῷ περὶ τὴν Πνύκα καὶ τὸ Μουσεῖον, εἰ μὴ κρατοῦσαι τῆς χώρας ἀδεῶς τῇ πόλει προσέμιξαν. **(2)** εἰ μὲν οὖν, ὡς Ἑλλάνικος (FGrH 4 F 167a = FGrH 323a F 17a) ἱστόρηκε, τῷ Κιμμερικῷ Βοσπόρῳ παγέντι διαβᾶσαι περιῆλθον, ἔργον ἐστὶ πιστεῦσαι· τὸ δ’ ἐν τῇ πόλει σχεδὸν αὐτὰς ἐνστρατοπεδεῦσαι μαρτυρεῖται καὶ τοῖς ὀνόμασι τῶν τόπων καὶ ταῖς θήκαις τῶν πεσόντων. Πολὺν δὲ χρόνον ὄκνος ἦν καὶ μέλλησις ἀμφοτέροις τῆς ἐπιχειρήσεως· τέλος δὲ Θησεὺς κατά τι λόγιον τῷ Φόβῳ σφαγιασάμενος συνῆψεν αὐταῖς. **(3)** ἡ μὲν οὖν μάχη Βοηδρομιῶνος ἐγένετο μηνός ἐφ’ ᾗ τὰ Βοηδρόμια μέχρι νῦν Ἀθηναῖοι θύουσιν. ἱστορεῖ δὲ Κλείδημος (FHG I 360 fr. 6 = FGrH 323 F 18), ἐξακριβοῦν τὰ καθ’ ἕκαστα βουλόμενος, τὸ μὲν εὐώνυμον τῶν Ἀμαζόνων κέρας ἐπιστρέφειν πρὸς τὸ νῦν καλούμενον Ἀμαζόνειον, τῷ δὲ δεξιῷ πρὸς τὴν Πνύκα κατὰ τὴν Χρύσαν ἥκειν. μάχεσθαι δὲ πρὸς τοῦτο τοὺς Ἀθηναίους ἀπὸ τοῦ Μουσείου ταῖς Ἀμαζόσι συμπεσόντας, καὶ τάφους τῶν πεσόντων περὶ τὴν πλατεῖαν εἶναι τὴν φέρουσαν ἐπὶ τὰς πύλας παρὰ τὸ Χαλκώδοντος ἡρῷον, ἃς νῦν Πειραϊκὰς ὀνομάζουσι. **(4)** καὶ ταύτῃ μὲν ἐκβιασθῆναι μέχρι τῶν Εὐμενίδων καὶ ὑποχωρῆσαι ταῖς γυναιξίν, ἀπὸ δὲ Παλλαδίου καὶ Ἀρδηττοῦ καὶ Λυκείου προσβαλόντας ὥσασθαι τὸ δεξιὸν αὐτῶν ἄχρι τοῦ στρατοπέδου καὶ πολλὰς καταβαλεῖν. τετάρτῳ δὲ μηνὶ συνθήκας γενέσθαι διὰ τῆς Ἱππολύτης· Ἱππολύτην γὰρ οὗτος ὀνομάζει τὴν τῷ Θησεῖ συνοικοῦσαν, οὐκ Ἀντιόπην. Ἔνιοι δέ φασι μετὰ τοῦ Θησέως μαχομένην πεσεῖν τὴν ἄνθρωπον ὑπὸ Μολπαδίας ἀκοντισθεῖσαν, καὶ τὴν στήλην τὴν παρὰ τὸ τῆς Ὀλυμπίας ἱερὸν ἐπὶ ταύτῃ κεῖσθαι. **(5)** καὶ θαυμαστὸν οὐκ ἔστιν ἐπὶ πράγμασιν οὕτω παλαιοῖς πλανᾶσθαι τὴν ἱστορίαν, ἐπεὶ καὶ τὰς τετρωμένας φασὶ τῶν Ἀμαζόνων ὑπ’ Ἀντιόπης εἰς Χαλκίδα λάθρα διαπεμφθείσας τυγχάνειν ἐπιμελείας, καὶ ταφῆναί τινας ἐκεῖ περὶ τὸ νῦν

Ἀμαζόνειον καλούμενον. ἀλλὰ τοῦ γε τὸν πόλεμον εἰς σπονδὰς τελευτῆσαι μαρτύριόν ἐστιν ἥ τε τοῦ τόπου κλῆσις τοῦ παρὰ τὸ Θησεῖον, ὅνπερ Ὁρκωμόσιον καλοῦσιν, ἥ τε γινομένη πάλαι θυσία ταῖς Ἀμαζόσι πρὸ τῶν Θησείων. (6) δεικνύουσι δὲ καὶ Μεγαρεῖς Ἀμαζόνων θήκην παρ' αὐτοῖς, ἐπὶ τὸν καλούμενον Ῥοῦν βαδίζουσιν ἐξ ἀγορᾶς, ὅπου τὸ Ῥομβοειδές. λέγεται δὲ καὶ περὶ Χαιρώνειαν ἑτέρας ἀποθανεῖν, καὶ ταφῆναι παρὰ τὸ ῥευμάτιον ὃ πάλαι μὲν, ὡς ἔοικε, Θερμώδων, Αἵμων δὲ νῦν καλεῖται· περὶ ὧν ἐν τῷ Δημοσθένους βίῳ (Plut. *Dem.* 19.2) γέγραπται. φαίνονται δὲ μηδὲ Θεσσαλίαν ἀπραγμόνως αἱ Ἀμαζόνες διελθοῦσαι· τάφοι γὰρ αὐτῶν ἔτι καὶ νῦν δείκνυνται περὶ τὴν Σκοτουσαίαν καὶ τὰς Κυνὸς κεφαλάς.

28 (1) Ταῦτα μὲν οὖν ἄξια μνήμης περὶ τῶν Ἀμαζόνων. ἦν γὰρ ὁ τῆς Θησηΐδος ποιητὴς (EGF 217 Kinkel) Ἀμαζόνων ἐπανάστασιν γέγραφε, Θησεῖ γαμοῦντι Φαίδραν τῆς Ἀντιόπης ἐπιτιθεμένης καὶ τῶν μετ' αὐτῆς Ἀμαζόνων ἀμυνομένων καὶ κτείνοντος αὐτὰς Ἡρακλέους, περιφανῶς ἔοικε μύθῳ καὶ πλάσματι. (2) τῆς δ' Ἀντιόπης ἀποθανούσης ἔγημε Φαίδραν, ἔχων υἱὸν Ἱππόλυτον ἐξ Ἀντιόπης, ὡς δὲ Πίνδαρός (F 176 Sn.-Mae.) φησι, Δημοφῶντα. τὰς δὲ περὶ ταύτην καὶ τὸν υἱὸν αὐτοῦ δυστυχίας, ἐπεὶ μηδὲν ἀντιπίπτει παρὰ τῶν ἱστορικῶν τοῖς τραγικοῖς, οὕτως ἔχειν θετέον ὡς ἐκεῖνοι πεποιήκασιν ἅπαντες.

Translation

24 (1) After the death of Aegeus, Theseus conceived a wonderful design, and settled all the residents of Attica in one city, thus making one people of one city out of those who up to that time had been scattered about and were not easily called together for the common interests of all, nay, they sometimes actually quarrelled and fought with each other. (2) He visited them, then, and tried to win them over to this project township by township and clan by clan. The common folk and the poor quicly answered to his summons; to the powerful he promised government without a king and a democracy, in which he should only be commander in war and guardian of the laws, while in all else everyone should be on an equal footing. (3) Some he readily persuaded to this course, and others, fearing his power, which was already great, and his boldness, chose to be persuaded rather than forced to agree to it. Accordingly, after doing away with the townhalls and council-chambers and magistracies in the several communities, and after building a common town-hall and council-chamber for all on the ground where the upper town of the present day stands, he named the city Athens, and instituted a Panathenaic festival. (4) He instituted the Metoecia, or Festival of Settlement, on the sixteenth day of the month Hecatombaeon, and this is still celebrated. Then, laying aside the royal power, as he had agreed, he proceeded to arrange the government, and that too with the sanction of the gods. For an oracle came to him from Delphi (Parke-Wormell 2.154), in answer to his enquiries about the city, as follows:

(5) "Theuses, offspring of Aegeus, son of the daughter of Pittheus,
Many indeed the cities to which my father has given Bounds and future fates within your citadel's confines.
Therefores be not dismayed, but with firm and confident spirit
Counsel only; the bladder will traverse the sea and its surges."

And this oracle they say the Sibyl (Hendess 23) afterwards repeated to the city, when she cried:

"Bladder may be submerged; but its sinking will not be permitted."

25 (1) Desiring still further to enlarge the city, he invited all men thither on equal terms, and the phrase "Come hither all ye people," they say was a proclamation of Theseus when he established a people, as it were, of all sorts and conditions. However, he did not suffer his democracy to become disordered or confused from an indiscriminate multitude streaming into it, but was the first to separate the people into noblemen and husbandmen and handicraftsmen. **(2)** To the noblemen he committed the care of religious rites, the supply of magistrates, the teaching of the laws, and the interpretation of the will of Heaven, and for the rest of the citizens he established a balance of privilege, the noblemen being thought to excel in dignity, the husbandmen in usefulness, and the handicraftsmen in numbers. And that he was the first to show a leaning towards the multitude, as Aristotle (*Ath.Pol.* 41.2; F 384 Rose[3]) says, and gave up his absolute rule, seems to be the testimony of Homer (*Ilias* 2.547) also, in the Catalogue of Ships, where he speaks of the Athenians alone as a "people." **(3)** He also coined money, and stamped it with the effigy of an ox, either in remembrance of the Marathonian bull, or of Taurus, the general of Minos, or because he would invite the citizens to agriculture. From this coinage, they say, "ten oxen" and "a hundred oxen" came to be used as terms of valauation. Having attached the territory of Megara securely to Attica, he set up that famous pillar on the Isthmus, and carved upon it the inscription giving the territorial boundaries. It consisted of two trimeters, of which the one towards the east declared: –

"Here is not Peloponnesus, but Ionia;"

and the one towards the west: –

"Here is the Peloponnesus, not Ionia."

(4) He also instituted the games here, in emulation of Heracles, being ambitious that as the Hellenes, by that hero's appointment, celebrated Olympian games in honour of Zeus, so by his own appointment they should celebrate Isthmian games in honour of Poseidon. For the games already instituted there in honour of Melicertes were celebrated in the night, and had the form of a religious rite rather than of a spectacle and public assembly. But some say that the Isthmian games were instituted in memory of Sciron, and that Theseus thus made expiation for his murder, because of the relationship between them; for Sciron was a son of Canethus

and Henioche, who was the daughter of Pittheus. **(5)** And others have it that Sinis, not Sciron, was their son, and that it was in his honour rather that the games were instituted by Theseus. However that may be, Theseus made a formal agreement with the Corinthians that they should furnish Athenian visitors to the Isthmian games with a place of honour as large as could be covered by the sail of the state galley which brought them thither, when it was stretched to its full extent. So Hellanicus (FHG I 55 fr. 76 = FGrH 4 F 165 = FGrH 323a F 15) and Andron of Halicarnassus (FGrH 10 F 6) tell us.

26 (1) He also made a voyage into the Euxine Sea, as Philochorus (FHG I 392 fr. 49 = FGrH 328 F 110) and sundry others say, on a campaign with Heracles against the Amazons, and received Antiope as a reward of his valour; but the majority of writers, including Pherecydes (FGrH 3 F 151), Hellanicus (FHG I 55 fr. 76 = FGrH 4 F 166 = FGrH 323a F 16a), and Herodorus (FGrH 31 F 25a), say that Theseus made this voyage on his own account, after the time of Heracles, and took the Amazon captive; and this is the more probable story. For it is not recorded that any one else among those who shared his expedition took an Amazon captive. **(2)** And Bion (FHG II 19 fr. 1 = FGrH 14 F 2 = FGrH 332 F 2) says that even this Amazon he took and carried off by means of a stratagem. The Amazons, he says, were naturally friendly to men, and did not fly from Theseus when he touched upon their coasts, but actually sent him presents, and he invited the one who brought them to come on board his ship; she came on board, and he put out to sea. And a certain Menecrates (FHG II 345 fr. 8 = FGrH 701 F 1), who published a history of the Bythinian city of Nicaea, says that Theseus, with Antiope on board his ship, spent some time in those parts, **(3)** and that there chanced to be with him on this expedition three young men of Athens who were brothers, Euneos, Thoas, and Soloïs. This last, he says, fell in love with Antiope unbeknown to the rest, and revealed his secret to one of his intimate friends. That friend made overtures to Antiope, who positively repulsed the attempt upon her, but treated the matter with discretion and gentleness, and made no denunciation to Theseus. **(4)** Then Soloïs, in despair, threw himself into a river and drowned himself, and Theseus, when he learned the fate of the young man, and what had caused it, was grievously disturbed, and in his distress called to mind a certain oracle which he had once received at Delphi (Parke-Wormell 2.411). For it had there been enjoined upon him by the Pythian priestess that when, in a strange land, he should be sorest vexed and full of sorrow, he should found a city there, and leave some of his followers to govern it. **(5)** For this cause he founded a city there, and called it, from the Pythian god, Pythopolis, and the adjacent river, Soloïs, in honour of the young man. And he left there the brothers of Soloïs, to be the city's presidents and law-givers, and with them Hermus, one of the noblemen of Athens. From him also the

Pythopolitans call a place in the city the House of Hermes, incorrectly changing the second syllable, and transferring the honour from a hero to a god.

27 (1) Well, then, such were the grounds for the war of the Amazons, which seems to have been no trivial nor womanish enterprise for Theseus. For they would not have pitched their camp within the city, nor fought hand to hand battles in the neighbourhood of the Pnyx and the Museum, had they not mastered the sorrounding country and approached the city with impunity. (2) Whether, now, as Hellanicus (FGrH 4 F 167a = FGrH 323a F 17a) writes, they came round by the Cimmerian Bosporus, which they crossed on the ice, may be doubted; but the fact that they encamped almost in the heart of the city is attested both by the names of the localities there and by the graves of those who fell in battle. Now for a long time there was hesitation and delay on both sides in making the attack, but finally Thesesus, after sacrificing to Fear, in obedience to an oracle, joined battle with the women. (3) This battle, then, was fought on the day of the month Boëdromion on which, down to the present time, the Athenians celebrate the Boëdromia. Cleidemus (FHG I 360 fr. 6 = FGrH 323 F 18), who wishes to be minute, writes that the left wing of the Amazons extended to what is now called the Amazoneum, and that with their right they touched the Pnyx at Chrysa; that with this left wing the Athenians fought, engaging the Amazons from the Museum, and that the graves of those who fell are on either side of the street which leads to the gate by the chapel of Chalcodon, which is now called the Peiraïe gate. (4) Here, he says, the Athenians were routed and driven back by the women as far as the shrine of the Eumenides, but those who attacked the invaders from the Palladium and Ardettus and the Lyceum, drove their right wing back as far as their camp, and slew many of them. And after three months, he says, a treaty of peace was made through the agency of Hippolyta; for Hippolyta is the name which Cleidemus gives to the Amazon whom Theseus married, not Antiope. But some say that the woman was slain with a javelin by Molpadia, while fighting at Theseus' side, and that the pillar which stands by the sanctuary of Olympian Earth was set up in her memory. (5) And it is not astonishing that history, when dealing with events of such great antiquity, should wander in uncertainty, indeed, we are also told that the wounded Amazons were secretly sent away to Chalcis by Antiope, and were nursed there, and some were buried there, near what is now called the Amazoneum. But that the war ended in a solemn treaty is attested not only by the naming of the place adjoining the Theseum, which is called Horcomosium, but also by the sacrifice which, in ancient times, was offered to the Amazons before the festival of Theseus. (6) And the Megarians, too, show a place in their country where Amazons were buried, on the way from the market-place to the place called Rhus, where the Rhomboid stands. And it is said, likewise, that others of them died near Chaeroneia, and were buried on the banks of the little stream

which, in ancient times, as it seems, was called Thermodon, but nowadays, Haemon; concerning which names I have written in my Life of Demosthenes (Plut. *Dem.* 19.2). It appears also that not even Thessaly was traversed by the Amazons without opposition, for Amazonian graves are to this day shown in the vicinity of Scotussa and Cynoschephalae.

28 (1) So much, then, is worthy of mention regarding the Amazons. For the "Insurrection of the Amazons," written by the author of the Theseid (EGF 217 Kinkel), telling how, when Theseus married Phaedra, Antiope and the Amazons who fought to avenge her attacked him, and were slain by Heracles, has every appearance of fable and invention. **(2)** Thesues did, indeed, marry Phaedra, but this was after the death of Antiope, and he had a son by Antiope, Hippolytus, or, as Pindar (F 176 Sn.-Mae.) says, Demophoön. As for the calamities which befell Phaedra and the son of Theseus by Antiope, since there is no conflict here between historians and tragic poets, we must suppose that they happened as represented by the poets uniformly.

(trans. Perrin)

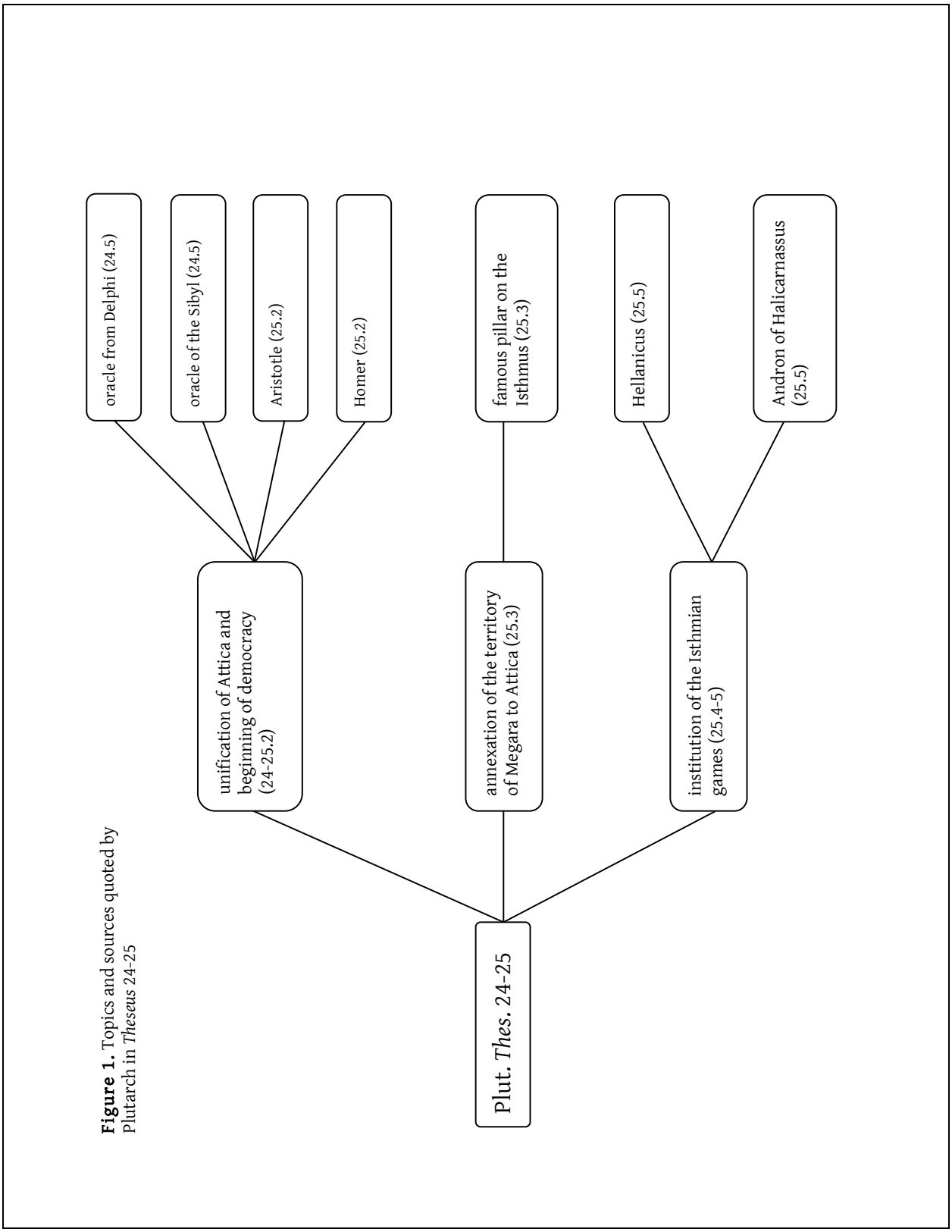

Figure 1. Topics and sources quoted by Plutarch in *Theseus* 24-25

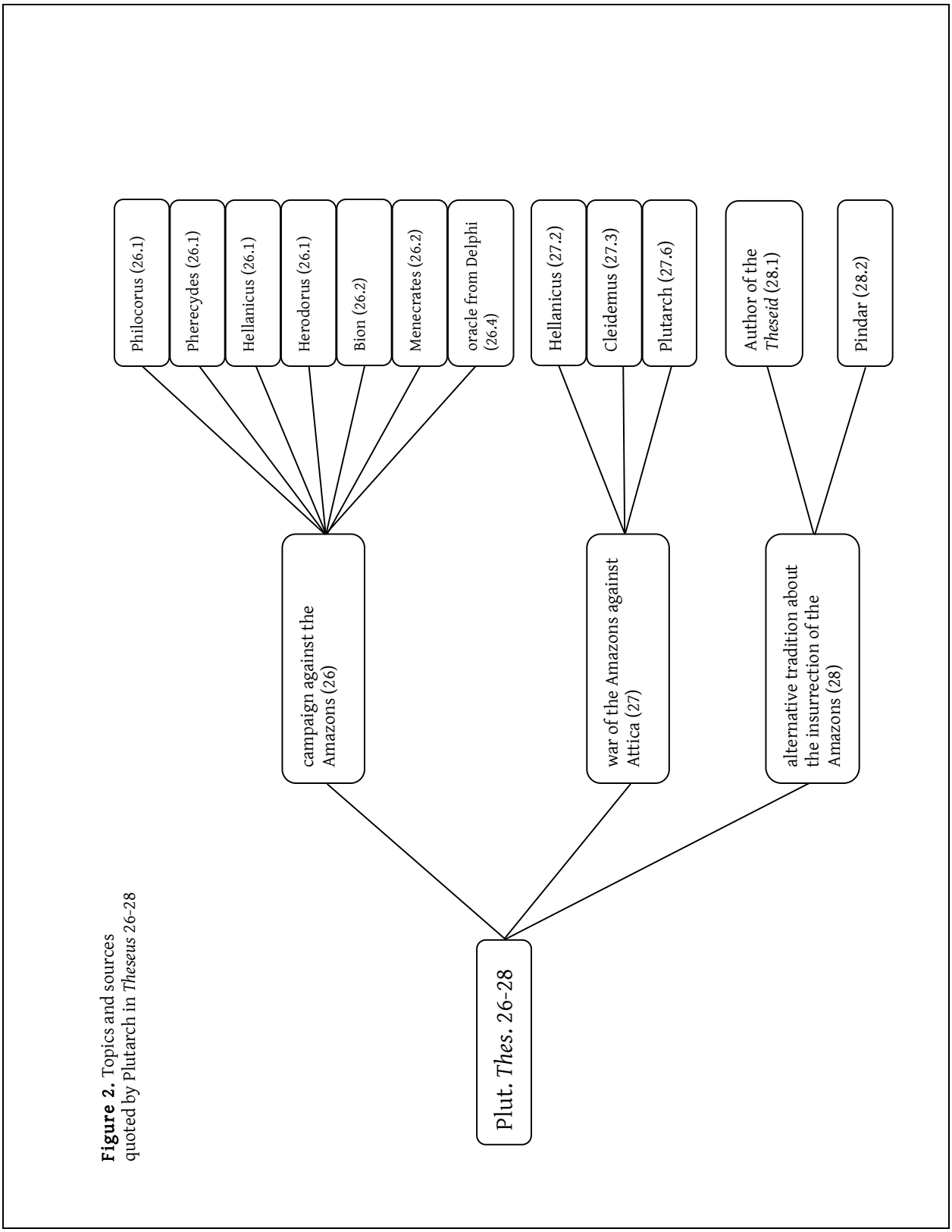

Figure 2. Topics and sources quoted by Plutarch in *Theseus* 26-28

Appendix 2

In this appendix we publish three examples from the *Deipnosophistae*, where Athenaeus quotes fragments of surviving texts of Herodotus, Thucydides, and Xenophon. The texts are published according to the following editions: *Athenaei Naucratitae Dipnosophistarum Libri XV*, rec. G. Kaibel. Vol. I. Lipsiae 1887 and Vol. III Lipsiae 1890; *Herodotus IV* (Books VIII-IX), ed. A. D. Godley. Cambridge, Ma 1969; *Thucydides. History of the Peloponnesian War II* (Books III-IV), ed. C. F. Smith. Cambridge, Ma 1958; *Xenophon. Memorabilia. Oeconomicus. Symposium. Apology*, ed. E. C. Marchant. Cambridge, Ma 1923.

1) Athenaeus, *Deipnosophistae* 4.15 (138b–d) & Herodotus 9.82

Ath. Deipn. 4.15 (138b-d) ἐξῆς δὲ λεκτέον καὶ περὶ τῶν Λακωνικῶν συμποσίων. Ἡρόδοτος μὲν οὖν ἐν τῇ ἐνάτῃ τῶν ἱστοριῶν (9.82) περὶ τῆς Μαρδονίου παρασκευῆς λέγων καὶ μνημονεύσας Λακωνικῶν συμποσίων φησί· ‘Ξέρξης φεύγων ἐκ τῆς Ἑλλάδος Μαρδονίῳ τὴν παρασκευὴν κατέλιπε τὴν αὐτοῦ. Παυσανίαν οὖν ἰδόντα τὴν τοῦ Μαρδονίου παρασκευὴν χρυσῷ καὶ ἀργύρῳ καὶ παραπετάσμασι ποικίλοις κατεσκευασμένην κελεῦσαι τοὺς ἀρτοποιοὺς καὶ ὀψοποιοὺς κατὰ ταὐτὰ καθὼς Μαρδονίῳ δεῖπνον παρασκευάσαι. ποιησάντων δὲ τούτων τὰ κελευσθέντα τὸν Παυσανίαν ἰδόντα κλίνας χρυσᾶς καὶ ἀργυρᾶς ἐστρωμένας καὶ τραπέζας ἀργυρᾶς καὶ παρασκευὴν μεγαλοπρεπῆ δείπνου ἐκπλαγέντα τὰ προκείμενα κελεῦσαι ἐπὶ γέλωτι τοῖς ἑαυτοῦ διακόνοις παρασκευάσαι Λακωνικὸν δεῖπνον. καὶ παρασκευασθέντος γελάσας ὁ Παυσανίας μετεπέμψατο τῶν Ἑλλήνων τοὺς στρατηγοὺς καὶ ἐλθόντων ἐπιδείξας ἑκατέρου τῶν δείπνων τὴν παρασκευὴν εἶπεν· ‘ἄνδρες Ἕλληνες,	**Hdt. 9.82 (1)** Λέγεται δὲ καὶ τάδε γενέσθαι, ὡς Ξέρξης φεύγων ἐκ τῆς Ἑλλάδος Μαρδονίῳ τὴν κατασκευὴν καταλίποι τὴν ἑωυτοῦ· Παυσανίην ὦν ὁρῶντα τὴν Μαρδονίου κατασκευὴν χρυσῷ τε καὶ ἀργύρῳ καὶ παραπετάσμασι ποικίλοισι κατεσκευασμένην, κελεῦσαι τούς τε ἀρτοκόπους καὶ τοὺς ὀψοποιοὺς κατὰ ταὐτὰ καθὼς Μαρδονίῳ δεῖπνον παρασκευάζειν. **(2)** ὡς δὲ κελευόμενοι οὗτοι ἐποίευν ταῦτα, ἐνθαῦτα τὸν Παυσανίην ἰδόντα κλίνας τε χρυσέας καὶ ἀργυρέας εὖ ἐστρωμένας καὶ τραπέζας τε χρυσέας καὶ ἀργυρέας καὶ παρασκευὴν μεγαλοπρεπέα τοῦ δείπνου, ἐκπλαγέντα τὰ προκείμενα ἀγαθὰ κελεῦσαι ἐπὶ γέλωτι τοὺς ἑωυτοῦ διηκόνους παρασκευάσαι Λακωνικὸν δεῖπνον. **(3)** ὡς δὲ τῆς θοίνης ποιηθείσης ἦν πολλὸν τὸ μέσον, τὸν Παυσανίην γελάσαντα μεταπέμψασθαι τῶν Ἑλλήνων τοὺς στρατηγούς, συνελθόντων δὲ τούτων εἰπεῖν τὸν Παυσανίην, δεικνύντα ἐς ἑκατέρην τοῦ δείπνου τὴν παρασκευήν,“Ἄνδρες Ἕλληνες, τῶνδε εἵνεκα ἐγὼ ὑμέας συνήγαγον,

συνήγαγον ὑμᾶς βουλόμενος ἐπιδεῖξαι τοῦ Μήδων ἡγεμόνος τὴν ἀφροσύνην, ὃς τοιαύτην δίαιταν ἔχων ἦλθεν ὡς ἡμᾶς οὕτω ταλαίπωρον ἔχοντας.' φασὶ δέ τινες καὶ ἄνδρα Συβαρίτην ἐπιδημήσαντα τῇ Σπάρτῃ καὶ συνεστιαθέντα ἐν τοῖς φιδιτίοις εἰπεῖν· 'εἰκότως ἀνδρειότατοι ἁπάντων εἰσὶ Λακεδαιμόνιοι· ἔλοιτο γὰρ 〈ἄν〉 τις εὖ φρονῶν μυριάκις ἀποθανεῖν ἢ οὕτως εὐτελοῦς διαίτης μεταλαβεῖν.'	βουλόμενος ὑμῖν τοῦδε τοῦ Μήδων ἡγεμόνος τὴν ἀφροσύνην δέξαι, ὃς τοιήνδε δίαιταν ἔχων ἦλθε ἐς ἡμέας οὕτω ὀϊζυρὴν ἔχοντας ἀπαιρησόμενος." ταῦτα μὲν Παυσανίην λέγεται εἰπεῖν πρὸς τοὺς στρατηγοὺς τῶν Ἑλλήνων.

Translation

Ath. Deipn. 4.15 (138b-d) Next we must speak also of Spartan symposia. Now Herodotus, in the ninth book of his *Histories* (9.82), speaking of Mardonius' tent and mentioning by the way the Spartan banquests, says: "When Xerxes fled from Greece he left behind the royal pavilion for Mardonius. Pausanias, therefore, when he saw the tent of Mardonius adorned with gold and silver and embroidered tapestries, commanded the bakers and fancy cooks to prepare a dinner exactly as they would for Mardonius. When they had done his bidding, Pausanias, seeing the gold and silver divans spread with coverings, and silver tables and a magnificent outlay for the dinner, in amazement at what was set before him, ordered in jest his own servants to prepare a Spartan dinner. And when it was ready, Pausanias laughed and sent for the Greek generals. On their arrival he pointed to the	**Hdt. 9.82 (1)** This other story is told. Xerxes in his fight from Hellas, having left to Mardonius his own establishment, Pausanias, seeing Mardonius' establishment with its display of gold and silver and gaily-coloured tapestry, bade the bakers and the cooks to prepare a dinner in such wise as they were wont to do for Mardonius. **(2)** They did his bidding; whereat Pausanias, when he saw golden and silvern couches richly covered, and tables of gold and silver, and all the magnificent service of the banquet, was amazed at the splendour before him, and for a jest bade his own servants prepare a dinner after Laconian fashion. **(3)** When that meal was ready and was far different from the other, Pausanias fell a-laughing, and sent for the generals of the Greeks. They being assembled, Pausanias pointed to the fashion after which either dinner was served, and said: "Men of Hellas, I have brought you

preparations made for each of the dinners and said: 'Men of Greece, I have gathered you together because I wish to show you the folly of the Median commander who, with all his luxury of living, came to attack us who are so poor.'" And some say that a Sybarite who had sojourned in Sparta and had been entertained among them at their public mess remarked: 'It is no wonder that Spartans are the bravest men in the world; for anyone in his right mind would prefer to die ten thousand times rather than share in such poor living.' (trans. Gulick)	hither because I desired to show you the foolishness of the leader of the Medes; who, with such provision for life as you see, came hither to take away from us ours, that is so pitiful." Thus, it is said, Pausanias spoke to the generals of the Greeks. (trans. Godley)

2) Athenaeus, *Deipnosophistae* 5.15 (189c) & Thucydides 4.103.1

Ath. Deipn. 5.15 (189c) ἔτι δὲ αὐλὸς μὲν τὸ ὄργανον, ὅτι διέρχεται τὸ πνεῦμα, καὶ πᾶν τὸ διατεταμένον εἰς εὐθύτητα σχῆμα αὐλὸν καλοῦμεν ὥσπερ τὸ στάδιον καὶ τὸν κρουνὸν τοῦ αἵματος· αὐτίκα δ' αὐλὸς ἀνὰ ῥῖνας παχὺς ἦλθε, καὶ τὴν περικεφαλαίαν ὅταν ἐκ τοῦ μέσου πρὸς ὀρθὸν ἀνατείνῃ αὐλῶπιν. λέγονται δὲ Ἀθήνησι καὶ ἱεροί τινες αὐλῶνες, ὧν μέμνηται Φιλόχορος (FHG I 409 fr. 147 = FGrH 328 F 68) ἐν τῇ ἑνάτῃ. καλοῦσι δ' ἀρσενικῶς τοὺς αὐλῶνας, ὥσπερ Θουκυδίδης (4.103.1) ἐν τῇ δ′ καὶ πάντες οἱ καταλογάδην συγγραφεῖς, οἱ δὲ ποιηταὶ θηλυκῶς.	**Thuc. 4.103 (1)** Ἐπὶ ταύτην οὖν ὁ Βρασίδας ἄρας ἐξ Ἀρνῶν τῆς Χαλκιδικῆς ἐπορεύετο τῷ στρατῷ. καὶ ἀφικόμενος περὶ δείλην ἐπὶ τὸν Αὐλῶνα καὶ Βορμίσκον, ᾗ ἡ Βόλβη λίμνη ἐξίησιν ἐς θάλασσαν, καὶ δειπνοποιησάμενος ἐχώρει τὴν νύκτα (...)

Translation

Ath. Deipn. 5.15 (189c) Again there is the	**Thuc. 4.103 (1)** Against this place Brasidas

instrument called *aulos*, because the air goes through it, and any figure prolonged in a straight line we call *aulos*, like a stadium, or a gush of blood: "Forthwith a thick gush came from his nostrils;" or of the helmet when it extends straight up from the middle we say that it is "tube-like." At Athens there are certain "sacred hollows" (*aulones*), as they are called, which Philochorus (FHG I 409 fr. 147 = FGrH 328 F 68) mentions in the ninth book. The noun meaning "hollows" is masculine, as in Thucydides, Book iv. (4.103.1), and all the historians who write in prose; but in the poets it is feminine. (trans. Gulick)	marched with his army, setting out from Arnae in Chalcidice. Arriving about dusk at Aulon and Bromiscus, where the lake Bolbe has its oulet into the sea, he took supper and then proceeded by night (...) (trans. Smith)

3) Athenaeus, *Deipnosophistae* 13.54 (588d) & Xenophon, *Memorabilia* 3.11.1

Ath. Deipn. 13.54 (588d) τὸ δ' αὐτὸ καὶ Σωκράτης ἐμαντεύσατο περὶ Θεοδότης τῆς Ἀθηναίας, ὥς φησι Ξενοφῶν ἐν Ἀπομνημονεύμασιν (3.11.1)· "ὅτι δὲ καλλίστη εἴη καὶ στέρνα κρείττω λόγου παντὸς ἔχοι λέγοντός τινος, 'ἰτέον ἡμῖν, ἔφη, θεασομένοις τὴν γυναῖκα· οὐ γὰρ δὴ ἀκούουσιν ἔστιν κρῖναι τὸ κάλλος.' "	**Xen. Mem. 3.11 (1)** Γυναικὸς δέ ποτε οὔσης ἐν τῇ πόλει καλῆς, ᾗ ὄνομα ἦν Θεοδότη, καὶ οἵας συνεῖναι τῷ πείθοντι, μνησθέντος αὐτῆς τῶν παρόντων τινὸς καὶ εἰπόντος ὅτι κρεῖττον εἴη λόγου τὸ κάλλος τῆς γυναικός, καὶ ζωγράφους φήσαντος εἰσιέναι πρὸς αὐτὴν ἀπεικασομένους, οἷς ἐκείνην ἐπιδεικνύειν ἑαυτῆς ὅσα καλῶς ἔχοι, Ἰτέον ἂν εἴη θεασομένους, ἔφη ὁ Σωκράτης· οὐ γὰρ δὴ ἀκούσασί γε τὸ λόγου κρεῖττον ἔστι καταμαθεῖν. καὶ ὁ διηγησάμενος, Οὐκ ἂν φθάνοιτ', ἔφη, ἀκολουθοῦντες.

Translation

Ath. Deipn. 13.54 (588d) Socrates, also, divined the same promise in the case of Theodote of Athens, as Xenophon says in his *Memorabilia* (3.11.1): "When someone remarked that she was very beautiful and had a bosom beyond the power of any tongue to describe Socrates said, 'We must go to see the woman; for it is not possible to judge her beauty by hearsay.' " (trans. Gulick)	**Xen. Mem. 3.11 (1)** At one time there was in Athens a beautiful woman named Theodote, who was ready to keep company with anyone who pleased her. One of the bystanders mentioned her name, declaring that words failed him to describe the lady's beauty, and adding that artists visited her to paint her portrait, and she showed them as much as decency allowed. "We had better go and see her," cried Socrates; "of course what beggars description can't very well be learned by hearsay." (trans. Marchant)

Appendix 3

In this appendix we publish four examples of visualization of fragments in their original context: for the full text see Appendix 1 and 2.
For more info, see http://demo.fragmentarytexts.org

1) Plutarch, *Theseus* 26 (the colours mean the extension of the fragment according to a particular edition both in the Greek text and the English translation. The pdf icon is a link to the print edition stored in Google or the Internet Archive).

26 (1) Εἰς δὲ τὸν πόντον ἔπλευσε τὸν Εὔξεινον, ὡς μὲν Φιλόχορος (FHG I 392 fr. 49 = FGrH 328 F 110) καί τινες ἄλλοι λέγουσι, μεθ' Ἡρακλέους ἐπὶ τὰς Ἀμαζόνας συστρατεύσας, καὶ γέρας Ἀντιόπην ἔλαβεν· οἱ δὲ πλείους, ὧν ἐστὶ καὶ Φερεκύδης (FGrH 3 F 151) καὶ Ἑλλάνικος (FHG I 55 fr. 76 = FGrH 4 F 166 = FGrH 323a F 16a) καὶ Ἡρόδωρος (FGrH 31 F 25a), ὕστερόν φασιν Ἡρακλέους ἰδιόστολον πλεῦσαι τὸν Θησέα καὶ τὴν Ἀμαζόνα λαβεῖν αἰχμάλωτον, πιθανώτερα λέγοντες. οὐδεὶς γὰρ ἄλλος ἱστόρηται τῶν μετ' αὐτοῦ στρατευσάντων Ἀμαζόνα λαβεῖν αἰχμάλωτον. **(2)** Βίων (FHG II 19 fr. 1 = FGrH 14 F 2 = FGrH 332 F 2) δὲ καὶ ταύτην παρακρουσάμενον οἴχεσθαι λαβόντα· φύσει γὰρ οὔσας τὰς Ἀμαζόνας φιλάνδρους οὔτε φυγεῖν τὸν Θησέα προσβάλλοντα τῇ χώρᾳ, ἀλλὰ καὶ ξένια πέμπειν· τὸν δὲ τὴν κομίζουσαν ἐμβῆναι παρακαλεῖν εἰς τὸ πλοῖον· ἐμβάσης δὲ ἀναχθῆναι. Μενεκράτης (FHG II 345 fr. 8 = FGrH 701 F 1) δέ τις, ἱστορίαν περὶ Νικαίας τῆς ἐν Βιθυνίᾳ πόλεως ἐκδεδωκώς, Θησέα φησὶ τὴν Ἀντιόπην ἔχοντα διατρῖψαι περὶ τούτους τοὺς τόπους· **(3)** τυγχάνειν δὲ συστρατεύοντας αὐτῷ τρεῖς νεανίσκους ἐξ Ἀθηνῶν ἀδελφοὺς ἀλλήλων, Εὔνεων καὶ Θόαντα καὶ Σολόεντα. τοῦτον οὖν ἐρῶντα τῆς Ἀντιόπης καὶ λανθάνοντα τοὺς ἄλλους ἐξειπεῖν πρὸς ἕνα τῶν συνήθων· ἐκείνου δὲ περὶ τούτων ἐντυχόντος τῇ Ἀντιόπῃ, τὴν μὲν πεῖραν ἰσχυρῶς ἀποτρίψασθαι, τὸ δὲ πρᾶγμα σωφρόνως ἅμα καὶ πράως ἐνεγκεῖν καὶ πρὸς τὸν Θησέα μὴ κατηγορῆσαι. **(4)** τοῦ δὲ Σολόεντος ὡς ἀπέγνω ῥίψαντος ἑαυτὸν εἰς ποταμόν τινα καὶ διαφθαρέντος, ἠσθημένον τότε τὴν αἰτίαν καὶ τὸ πάθος τοῦ νεανίσκου τὸν Θησέα βαρέως ἐνεγκεῖν, καὶ δυσφοροῦντα λόγιόν τι πυθόχρηστον ἀνενεγκεῖν πρὸς ἑαυτόν· εἶναι γὰρ αὐτῷ προστεταγμένον ἐν Δελφοῖς ὑπὸ τῆς Πυθίας (Parke-Wormell 2.411), ὅταν ἐπὶ ξένης ἀνιαθῇ μάλιστα καὶ περίλυπος γένηται, πόλιν ἐκεῖ κτίσαι καὶ τῶν ἀμφ' αὐτόν τινας ἡγεμόνας καταλιπεῖν. **(5)** ἐκ δὲ τούτου τὴν μὲν πόλιν, ἣν ἔκτισεν, ἀπὸ τοῦ θεοῦ Πυθόπολιν προσαγορεῦσαι, Σολόεντα δὲ τὸν πλησίον ποταμὸν ἐπὶ τιμῇ τοῦ νεανίσκου. καταλιπεῖν δὲ καὶ τοὺς ἀδελφοὺς αὐτοῦ, οἷον ἐπιστάτας καὶ νομοθέτας, καὶ σὺν αὐτοῖς Ἕρμον ἄνδρα τῶν Ἀθήνησιν εὐπατριδῶν· ἀφ' οὗ καὶ τόπον Ἑρμοῦ καλεῖν οἰκίαν τοὺς Πυθοπολίτας, οὐκ ὀρθῶς τὴν δευτέραν συλλαβὴν περισπῶντας καὶ τὴν δόξαν ἐπὶ θεὸν ἀπὸ ἥρωος μετατιθέντας.

26 (1) He also made a voyage into the Euxine Sea, as Philochorus (FHG I 392 fr. 49 = FGrH 328 F 110) and sundry others say, on a campaign with Heracles against the Amazons, and received Antiope as a reward of his valour; but the majority of writers, including Pherecydes (FGrH 3 F 151), Hellanicus (FHG I 55 fr. 76 = FGrH 4 F 166 = FGrH 323a F 16a), and Herodorus (FGrH 31 F 25a), say that Theseus made this voyage on his own account, after the time of Heracles, and took the Amazon captive; and this is the more probable story. For it is not recorded that any one else among those who shared his expedition took an Amazon captive. **(2)** And Bion (FHG II 19 fr. 1 = FGrH 14 F 2 = FGrH 332 F 2) says that even this Amazon he took and carried off by means of a stratagem. The Amazons, he says, were naturally friendly to men, and did not fly from Theseus when he touched upon their coasts, but actually sent him presents, and he invited the one who brought them to come on board his ship; she came on board, and he put out to sea. And a certain Menecrates (FHG II 345 fr. 8 = FGrH 701 F 1), who published a history of the Bythinian city of Nicaea, says that Theseus, with Antiope on board his ship, spent some time in those parts, **(3)** and that there chanced to be with him on this expedition three young men of Athens who were brothers, Euneos, Thoas, and Soloïs. This last, he says, fell in love with Antiope unbeknown to the rest, and revealed his secret to one of his intimate friends. That friend made overtures to Antiope, who positively repulsed the attempt upon her, but treated the matter with discretion and gentleness, and made no denunciation to Theseus. **(4)** Then Soloïs, in despair, threw himself into a river and drowned himself, and Theseus, when he learned the fate of the young man, and what had caused it, was grievously disturbed, and in his distress called to mind a certain oracle which he had once received at Delphi (Parke-Wormell 2.411). For it had there been enjoined upon him by the Pythian priestess that when, in a strange land, he should be sorest vexed and full of sorrow, he should found a city there, and leave some of his followers to govern it. **(5)** For this cause he founded a city there, and called it, from the Pythian god, Pythopolis, and the adjacent river, Soloïs, in honour of the young man. And he left there the brothers of Soloïs, to be the city's presidents and law-givers, and with them Hermus, one of the noblemen of Athens. From him also the Pythopolitans call a place in the city the House of Hermes, incorrectly changing the second syllable, and transferring the honour from a hero to a god.

The following examples are comparisons between Athenaeus' *Deipnosophistae* and the preserved texts of Herodotus, Thucydides, and Xenophon. The colours mean the corresponding words in Athenaeus and in the quoted source.

2) Athenaeus, *Deipnosophistae* 4.15 (138b-d) & Herodotus 9.82

Athenaei Naucratitae Dipnosophistarum Libri XV, rec. G. Kaibel. Vol. I. Lipsiae 1887

Ath. Deipn. 4.15 (138b-d) ἐξῆς δὲ λεκτέον καὶ περὶ τῶν Λακωνικῶν συμποσίων. Ἡρόδοτος μὲν οὖν ἐν τῇ ἑνάτῃ τῶν ἱστοριῶν (9.82) περὶ τῆς Μαρδονίου παρασκευῆς λέγων καὶ μνημονεύσας Λακωνικῶν συμποσίων φησί· 'Ξέρξης φεύγων ἐκ τῆς Ἑλλάδος Μαρδονίῳ τὴν παρασκευὴν κατέλιπε τὴν αὑτοῦ. Παυσανίαν οὖν ἰδόντα τὴν τοῦ Μαρδονίου παρασκευὴν χρυσῷ καὶ ἀργύρῳ καὶ παραπετάσμασι ποικίλοις κατεσκευασμένην κελεῦσαι τοὺς ἀρτοποιοὺς καὶ ὀψοποιοὺς κατὰ ταὐτὰ καθὼς Μαρδονίῳ δεῖπνον παρασκευάσαι. ποιησάντων δὲ τούτων τὰ κελευσθέντα τὸν Παυσανίαν ἰδόντα κλίνας χρυσᾶς καὶ ἀργυρᾶς ἐστρωμένας καὶ τραπέζας ἀργυρᾶς καὶ παρασκευὴν μεγαλοπρεπῆ δείπνου ἐκπλαγέντα τὰ προκείμενα κελεῦσαι ἐπὶ γέλωτι τοῖς ἑαυτοῦ διακόνοις παρασκευάσαι Λακωνικὸν δεῖπνον. καὶ παρασκευασθέντος γελάσας ὁ Παυσανίας μετεπέμψατο τῶν Ἑλλήνων τοὺς στρατηγοὺς καὶ ἑλθόντων ἐπιδείξας ἑκατέρου τῶν δείπνων τὴν παρασκευὴν εἶπεν· 'ἄνδρες Ἕλληνες, συνήγαγον ὑμᾶς βουλόμενος ἐπιδεῖξαι τοῦ Μήδων ἡγεμόνος τὴν ἀφροσύνην, ὃς τοιαύτην δίαιταν ἔχων ἦλθεν ὡς ἡμᾶς οὕτω ταλαίπωρον ἔχοντας.' φασὶ δέ τινες καὶ ἄνδρα Συβαρίτην ἐπιδημήσαντα τῇ Σπάρτῃ καὶ συνεστιαθέντα ἐν τοῖς φιδιτίοις εἰπεῖν· 'εἰκότως ἀνδρειότατοι ἁπάντων εἰσὶ Λακεδαιμόνιοι· ἕλοιτο γὰρ ⟨ἄν⟩ τις εὖ φρονῶν μυριάκις ἀποθανεῖν ἢ οὕτως εὐτελοῦς διαίτης μεταλαβεῖν.'

Herodotus IV (Books VIII-IX), ed. A.D. Godley. Cambridge, Ma 1969

Hdt. 9.82 (1) Λέγεται δὲ καὶ τάδε γενέσθαι, ὡς Ξέρξης φεύγων ἐκ τῆς Ἑλλάδος Μαρδονίῳ τὴν κατασκευὴν καταλίποι τὴν ἑωυτοῦ· Παυσανίην ὦν ὁρῶντα τὴν Μαρδονίου κατασκευὴν χρυσῷ τε καὶ ἀργύρῳ καὶ παραπετάσμασι ποικίλοισι κατεσκευασμένην, κελεῦσαι τούς τε ἀρτοκόπους καὶ τοὺς ὀψοποιοὺς κατὰ ταὐτὰ καθὼς Μαρδονίῳ δεῖπνον παρασκευάζειν. **(2)** ὡς δὲ κελευόμενοι οὗτοι ἐποίευν ταῦτα, ἐνθαῦτα τὸν Παυσανίην ἰδόντα κλίνας τε χρυσέας καὶ ἀργυρέας εὖ ἐστρωμένας καὶ τραπέζας τε χρυσέας καὶ ἀργυρέας καὶ παρασκευὴν μεγαλοπρεπέα τοῦ δείπνου, ἐκπλαγέντα τὰ προκείμενα ἀγαθὰ κελεῦσαι ἐπὶ γέλωτι τοὺς ἑωυτοῦ διηκόνους παρασκευάσαι Λακωνικὸν δεῖπνον. **(3)** ὡς δὲ τῆς θοίνης ποιηθείσης ἦν πολλὸν τὸ μέσον, τὸν Παυσανίην γελάσαντα μεταπέμψασθαι τῶν Ἑλλήνων τοὺς στρατηγούς, συνελθόντων δὲ τούτων εἰπεῖν τὸν Παυσανίην, δεικνύντα ἐς ἑκατέρην τοῦ δείπνου τὴν παρασκευήν,"Ἄνδρες Ἕλληνες, τῶνδε εἵνεκα ἐγὼ ὑμέας συνήγαγον, βουλόμενος ὑμῖν τοῦδε τοῦ Μήδων ἡγεμόνος τὴν ἀφροσύνην δέξαι, ὃς τοιήνδε δίαιταν ἔχων ἦλθε ἐς ἡμέας οὕτω ὀϊζυρὴν ἔχοντας ἀπαιρησόμενος." ταῦτα μὲν Παυσανίην λέγεται εἰπεῖν πρὸς τοὺς στρατηγοὺς τῶν Ἑλλήνων.

3) Athenaeus, *Deipnosophistae* 5.15 (189c) & Thucydides 4.103.1

Athenaei Naucratitae Dipnosophistarum Libri XV, rec. G. Kaibel. Vol. I. Lipsiae 1887

Ath. Deipn. 5.15 (189c) ἔτι δὲ αὐλὸς μὲν τὸ ὄργανον, ὅτι διέρχεται τὸ πνεῦμα, καὶ πᾶν τὸ διατεταμένον εἰς εὐθύτητα σχῆμα αὐλὸν καλοῦμεν ὥσπερ τὸ στάδιον καὶ τὸν κρουνὸν τοῦ αἵματος· αὐτίκα δ' αὐλὸς ἀνὰ ῥῖνας παχὺς ἦλθε, καὶ τὴν περικεφαλαίαν ὅταν ἐκ τοῦ μέσου πρὸς ὀρθὸν ἀνατείνῃ αὐλῶπιν. λέγονται δὲ Ἀθήνησι καὶ ἱεροί τινες αὐλῶνες, ὧν μέμνηται Φιλόχορος ἐν τῇ ἑνάτῃ (FHG I 409 fr. 147 = FGrH 328 F 68). καλοῦσι δ' ἀρσενικῶς τοὺς αὐλῶνας, ὥσπερ Θουκυδίδης ἐν τῇ δ' (4.103.1) καὶ πάντες οἱ καταλογάδην συγγραφεῖς, οἱ δὲ ποιηταὶ θηλυκῶς.

Thucydides. History of the Peloponnesian War II (Books III-IV), ed. C.F. Smith. Cambridge, Ma 1958

Thuc. 4.103 (1) Ἐπὶ ταύτην οὖν ὁ Βρασίδας ἄρας ἐξ Ἀρνῶν τῆς Χαλκιδικῆς ἐπορεύετο τῷ στρατῷ. καὶ ἀφικόμενος περὶ δείλην ἐπὶ τὸν Αὐλῶνα καὶ Βορμίσκον, ᾗ ἡ Βόλβη λίμνη ἐξίησιν ἐς θάλασσαν, καὶ δειπνοποιησάμενος ἐχώρει τὴν νύκτα. (...)

4) Athenaeus, *Deipnosophistae* 13.54 (588d) & Xenophon, *Memorabilia* 3.11.1

Athenaei Naucratitae Dipnosophistarum Libri XV, rec. G. Kaibel. Vol. III Lipsiae 1890	*Xenophon. Memorabilia. Oeconomicus. Symposium. Apology*, ed. E.C. Marchant. Cambridge, Ma 1923
Ath. Deipn. 13.54 (588d) τὸ δ' αὐτὸ καὶ Σωκράτης ἐμαντεύσατο περὶ Θεοδότης τῆς Ἀθηναίας, ὥς φησι Ξενοφῶν ἐν Ἀπομνημονεύμασιν (3.11.1)· "ὅτι δὲ καλλίστη εἴη καὶ στέρνα κρείττω λόγου παντὸς ἔχοι λέγοντός τινος, 'ἰτέον ἡμῖν, ἔφη, θεασομένοις τὴν γυναῖκα· οὐ γὰρ δὴ ἀκούουσιν ἔστιν κρῖναι τὸ κάλλος.' "	**Xen. Mem. 3.11 (1)** Γυναικὸς δέ ποτε οὔσης ἐν τῇ πόλει καλῆς, ᾗ ὄνομα ἦν Θεοδότη, καὶ οἵας συνεῖναι τῷ πείθοντι, μνησθέντος αὐτῆς τῶν παρόντων τινὸς καὶ εἰπόντος ὅτι κρεῖττον εἴη λόγου τὸ κάλλος τῆς γυναικός, καὶ ζωγράφους φήσαντος εἰσιέναι πρὸς αὐτὴν ἀπεικασομένους, οἷς ἐκείνην ἐπιδεικνύειν ἑαυτῆς ὅσα καλῶς ἔχοι, Ἰτέον ἂν εἴη θεασομένους, ἔφη ὁ Σωκράτης· οὐ γὰρ δὴ ἀκούσασί γε τὸ λόγου κρεῖττον ἔστι καταμαθεῖν. καὶ ὁ διηγησάμενος, Οὐκ ἂν φθάνοιτ', ἔφη, ἀκολουθοῦντες.