

Detailed description of eAQUA search portal

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Abstract

In order to perform a search for a simple word or a conjunction of multiple words there is in classics currently some established software available (e.g. Diogens by P. Heslin, the Text Search function of TLG-online, Pandora). The search functions of newer text mining methods are going further by offering the potential to show syntagmatic contexts. If two terms are occurring together in at least one local context they are in a relationship that can be denominated as syntagmatic context. The search function of eAQUA is based on this fact. By typing a term in the search mask results of this kind are displayed as a graph visualization (graphical display of a word net of sentence cooccurrences) and as lists of significant cooccurrences and neighborhood cooccurrences (both ordered by significance). With the help of examples derived from the project work in eAQUA (e.g. rare cooccurrences) shall be elucidated below which new and innovative potentials for the modus operandi of classicists are gained from the use of this search method.

Keywords

Text mining methods – syntagmatic context – sentence cooccurrences – rare cooccurrences – Atthidographers – Anacharsis

1. The potentials of using significant cooccurrences for searching

A context resulting out of the joint occurrence of two or more terms is commonly well known in classicist literature, meaning that it has been well studied or it is so common that it has no value of novelty or surprise. However it has to be considered too that there has to be an already existing clear concept regarding the goal of the inquiry when using the simple or joint word search function. This means for example that the terms that have been chosen for the word search function are based on a sense, an assumption or the like. In contrast the eAQUA search function is based on entering a single word for which the whole coverage of text from the TLG-E edition will be provided in order to perform a *contextual* search.

Searching for Hellanicus, the 5th century BC historian and author of various works will yield via the eAQUA search function the following graph:

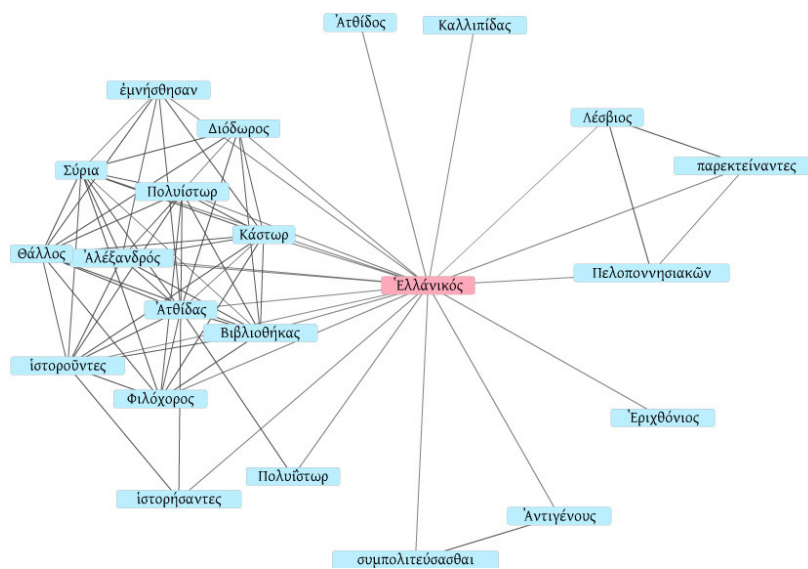


Fig. 1: Graph of Ἑλλανικός

The visualization of its cooccurrences shows a lot of what indicates the context of Hellanicus' works like for instance a cluster, which alludes to the reference of various Attidographers (cf. FGrHist 323a F4), that contains also the mention of the work of Hellanicus. Another example belongs to the mention of a certain Antigenes (cf. FGrHist 1 F1). An inquiry in both instances shows that this alludes to Archons who have been mentioned twice in the work of Hellanicus.

For the scientific work the confirmation of the familiar that is based on the centuries-old - or when including ancient text critics - millennia-old discussion of the texts could be valuable as such if it yields a gain in speed. But it wouldn't be yet a real innovation that allows us to speak of a new method for searching. The case is different if the contextual search would infer to semantic relations that are neither apparent nor familiar nor accomplished by using other conventional searching strategies or methods that are deriving from the use of lexicons, dictionaries, concordances, indices, search functions in software like Diogenes or the TLG online edition.

Various examples that have been studied in the eAQUA project will illustrate the potentials of the search function in eAQUA and discuss initially emerging capabilities. They make use of the context and the meaning of co-occurrences of rarely used words in relation to frequently used words as well as other rarely occurring words based on the TLG-E text corpus.

1. Example: Περικλεῖ (TLG-E)

Pericles as one of the most prominent politicians in classical Athens is referred to so often in ancient literature and modern research that it is rather unlikely to find specific and new contexts mentioning him by just searching without further restrictions or additional details, as can be seen from the following complex cooccurrence graph:

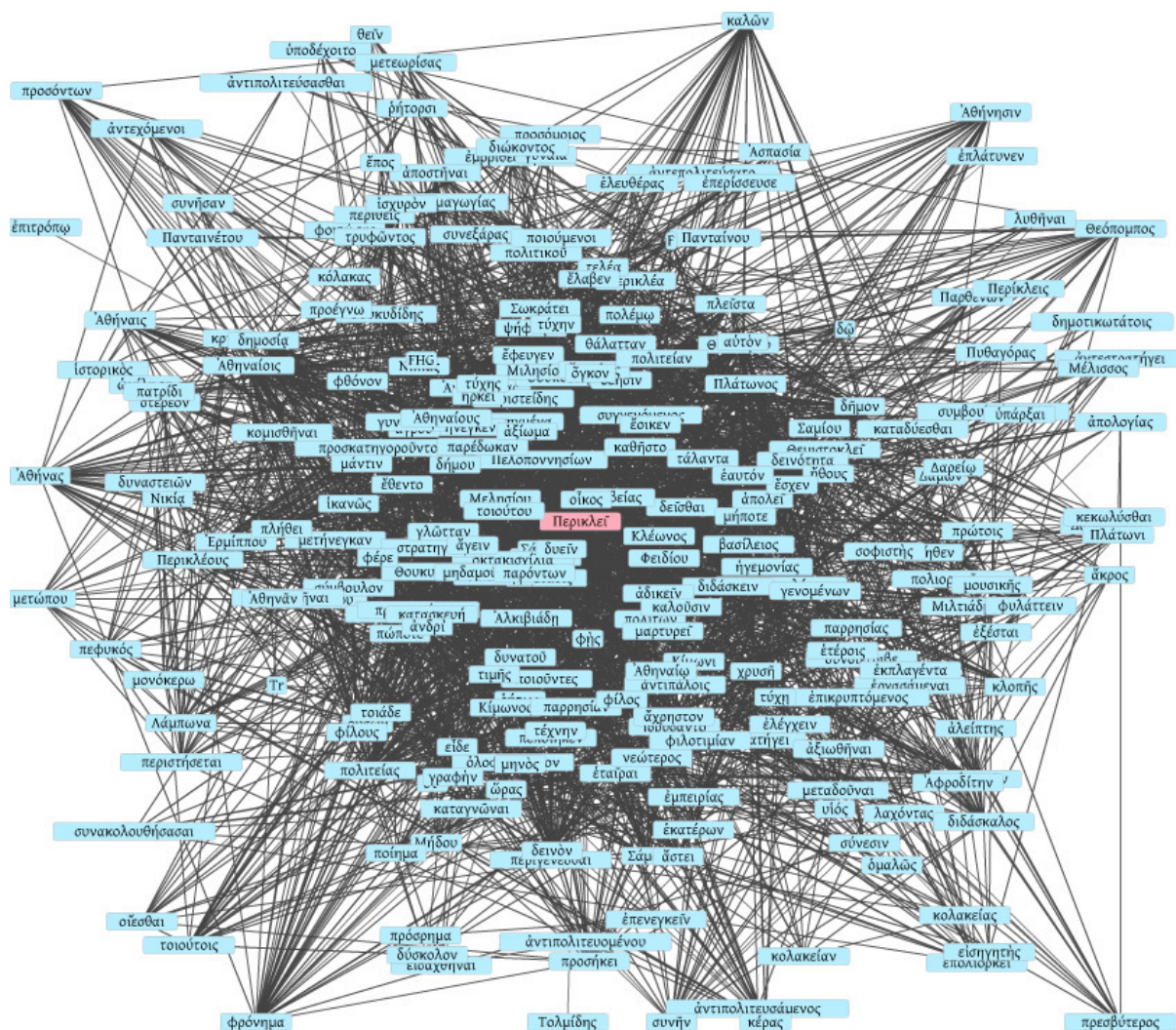


Fig. 2: Graph of Περικλεῖ; Einstellungen: loglikelihood /function words: 100.

Again, however, looking through the list of co-occurrences as in the first example yields an unexpected result when taking as search word the dative Perikleī ((Περικλεῖ: Dativ Sg. of Περικλῆς / Περικλῆς, total number of occurrences 168, frequency class 15; searching with Diogenes in TLG-E: 182). Surprisingly prominent is the verb ἀντιπολιτεύασθαι and its inflectional forms. For the whole classical literature, searching for ἀντιπολιτ* in TLG-online using the lemmatized truncated search only yields 160 occurrences (including double counts).

Let us look at the list of cooccurrences:

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τῷ (76); ἀντιπολιτεύεσθαι (4); Θουκυδίδου (6); ἀντιπολιτευομένου (3); συνακολουθήσασαι (3); Μιλτιάδη (4); ιστορικός (4); Θουκυδίδης (6); μονόκρω (2); προσκατηγορούντος (2); Μελησίου (3); ἑταῖραι (3); εἰσαχθῆναι (3); Πανταίνετου (2); Δαμωνίδου (2); Περικλῆς (4); Ἀριστείδης (4); ἰδρύσαντο (3); ἀντεπολιτεύσατο (2); Πανταίνου (2); Θεόδομος (4); Σάμω (3); Οἰθηεν (2); Ἑρμίππου (2); τελέα (2); Λάμπωνα (2); ἐπικρουπτόμενος (2); ὄκτακισχλία (2); τῶι (6); ὠμίλησα (2); φησὶν (9); Κίμωνι (2); Ἀσπασία (2); καταλυθέντος (2); Δάμων (2); μετήνεγκαν (2); εἰσηγητής (2); θαυμασθῆναι (2); Σωκράτει (3); συμβουλευέσσαντος (2); συνηγμένα (2); καταδύεσθαι (2); ἀντιπάλαιος (2); ἀντεχόμενοι (2); προσπεσόντος (2); Θουκυδίδην (2); λαχόντας (2); bf (1); Τελεσίπῳ (1); ἀριστοκρατικοί (1); Ἐπικράτεια (1); 179c (1); σκυτικός (1); Σακεσφόρον (1); κάγαθαί (1); Εὐθύδαμον (1); ἀγαθούς (1); εὐγενεστάτως (1); ἀντιπολιτευσάμενον (1); παιδευτο (1); ἀκροτελευίτων (1); μισήσαντες (1); ἀναμειγνύντι (1); φωτόκει (1); σκιαμαχοῦν (1); Καλάμοις (1); Διτρέφει (1); ἀντιπολιτευσάμενου (1); Σωκράταν (1); συνεπικρύπτειν (1); καταγνῶναι (2); Περικλεῖ (2); κόλακας (2); Κίμωνος (2); ἐφευγεν (2); ἄκρος (2); δίκην (5); κατασκευῆ (2); Κηφισόδημος (1); δημιουργησάσης (1); ἀποκαρτεροῦντα (1); ἐπιλειπόμενος (1); μακρότερον (1); ἀγγελῆ (1); Ἀλκιβιάδαν (1); ἀντεπολι (1); παρωσά (1); Θουκυδίδη (2); ἐξέτασις (2); δεινότητα (2); προσόντων (2); ἀξιοθῆναι (2); Σαμιακῶν (1); Τολ (1); διεπλάθησαν (1); μεμενηκώς (1); ἀνόργανον (1); διώκοντας (2); κριού (2); κολακείας (2);

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ἀντιπολιτευσάμενος (4); ἐπιτρόπῳ (5); Περικλέους (6); ἀντεστρατήγει (3); Πελοποννησίων (5); συνδιέτριβε (3); φοιτήσας (3); ἐργασάμεναι (3); Φειδίου (4); συνεξάρας (2); πολιορκοῦντι (3); Σαμίους (3); δημοτικωτάτοις (2); Θεμιστοκλεῖ (3); Ἀναξαγόρας (4); Παρθενῶν (2); συγγενόμενος (3); ὑποδέχοιτο (2); Μελισσος (3); νεώτερος (4); προέγγω (3); τρυφῶντος (2); ἐπερίσσευσε (2); Περικλείς (2); σύμβουλον (3); Σάμον (3); ὀλοφύρομενον (2); Λάμπωνα (2); ἐκπλαγῆντα (2); ἐμβριθέστερον (2); προσόμοιος (2); ἐπολιόρκει (3); δημαγωγίας (2); ῥήτωρ (4); ἐπλάτυνεν (2); ἀλείπτῃς (2); Μιλτιάδη (2); περιγενέσθαι (3); Νικίᾳ (2); Μῆδου (2); περιστήσεται (2); μετεωρίσας (2); δυναστεῖαν (2); Σαμίου (2); βασιλείας (2); πρόσρημα (2); πεφυκός (2); δῆμον (4); συνῆσαν (2); προσκλάμποντα (1); νεμεσητά (1); φθιμένοι (1); ἀφέντες (1); ἐπερίσσευσε (1); ἐγκατεχομένην (1); συνεταῖται (1); διεπολιτεύσατο (1); προσδιωρῶσατο (1); συμφιλοτιμούμενον (1); Χαλκιοῖκου (1); σφυροῖσαν (1); ἡκατεδικάσθη (1); Μένωνά (1); ἐνεορτάσαι (1); ἐγυναϊκίζου (1); προηχοῦντα (1); ἐπερίσσευσε (1); ἀθλητῆ (1); ἀντιβλασφημεῖν (1); ζημίαν (1); ἐστρατήγει (2); Ἀθηναίῳ (2); πολέμῳ (4); Περικλεῖ (2); ἀπολεῖ (2); κομισθῆναι (2); λόγους (6); ῥήτορας (2); καθῆστο (2); περιβεί (2); φοίνισσαι (1); ἐκύεις (1); ἐμπανηγυρίσαι (1); ἀπομειλιξασθαι (1); Μητρίχη (1); διαφανείσαν (1); παροψόμεθα (1); ἐξαινας (1); ἐπεικέστατα (1); ὑπηρετήσαι (1); φιλοπολίτη (1); συστρατηγήσαι (1); Θουκυδίδη (2); χρυσῆ (2); Κλέωνος (2); Θουκυδίδου (2); δεῖσθαι (3); ἐπενεργεῖν (2); ὄντι (4); φρόνημα (3);

Fig. 3: List of co-occurrences of Περικλεῖ

Enlarging the graph visualizes the contextual interrelations:

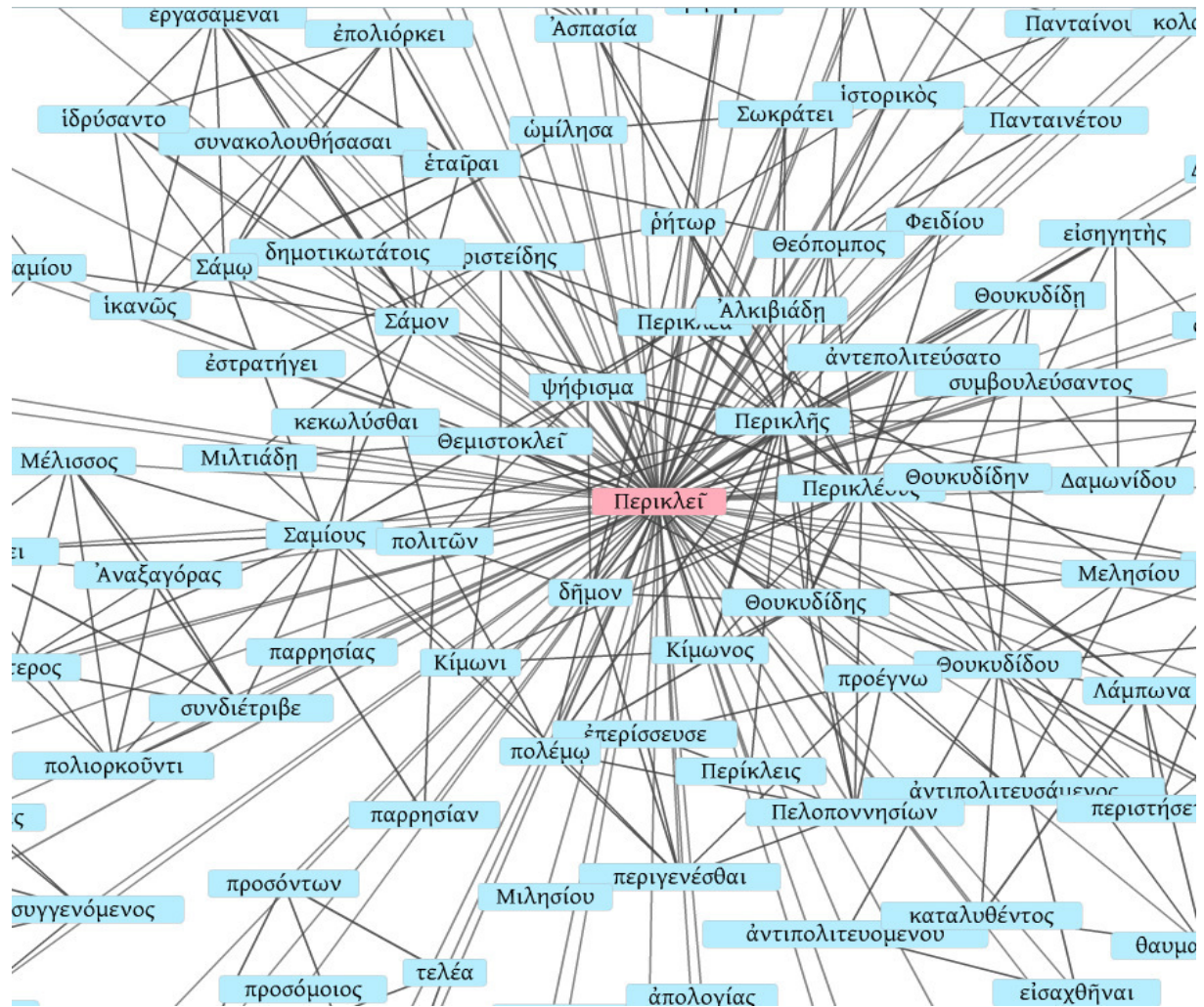


Fig. 4: Enlarged Graph of Περικλεῖ

whole ancient texts and are thus not traceable using other known methods or strategies of searching.

2. Example: Ἀτθίδος

The modern term "Atthidographers" refers to a group of historians who have written books on the history of Athens from mythical epochs down to their own time and flourished in the 4th century BC (Jacoby, 1923-1958); since 2006 available online and as CDROM (Brill); since 2007: Worthington, Brill's New Jacoby; cf. G. Schepens et. al., 1998ff.). Their works, the so-called „Atthides“, have not survived; only quotations by later authors allow an approximate reconstruction of the content and intent of their work. Any search query has to bear in mind that the search results display both the co-occurrences of the quoting author and the cited work. As these quotes usually are associated with a reference to one of the books of these respective „Atthides“ from where the quoted sentence has been taken (e.g. ἐν ᾧ Ἀτθίδος: in the 4th book of the Atthis), Ἀτθίδος, the most frequent case of "Atthis" in the corpus (in TLG-E: ἄτθιδος/Atthidos 276 times; the secondary most frequent form ἄτθίδι/Atthidi occurring 83 times), seems to be suited for a test.

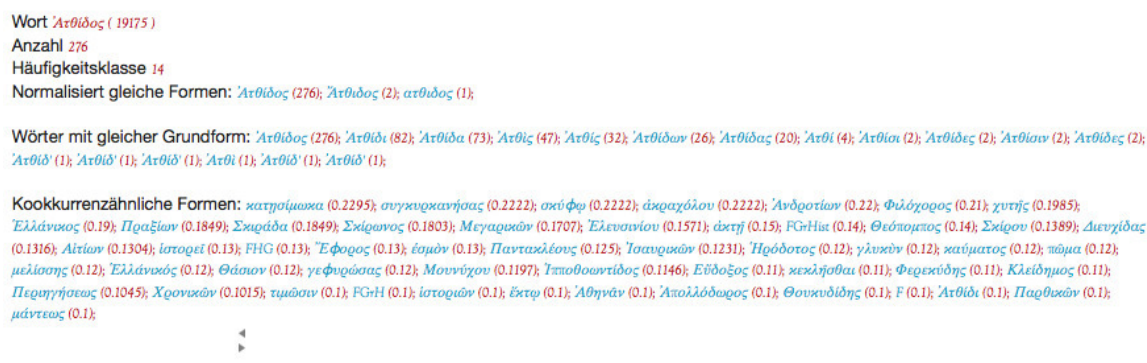


Fig. 6: Co-occurrences of Ἀτθίδος

The word form occurs 276 times¹ in the corpus of the TLG-E and has the frequency class² 14, thus being not a rare word, it is not very common too. By moving the mouse pointer over the words inside the graph individual contexts, that is to say semantically related phrases group, are displayed at a time:

¹ Diogenes using the same corpus shows 286 occurrences. The extraction of the corpus' text data for the inclusion into the eAQUA database brought also difficulties. In all TLG corpora words reaching over the end of a line contain fixed hyphens. In the version on hand these hyphens have been deleted but the remaining word fragments were not merged. Consequently fragments like "Ἀτθί", "τθίδος" or "Ἀτθ" appear, thus decreasing the overall amount of appearances of its origin word.

² class of frequency: the most frequent term of the TLG-E corpus καὶ occurs there 2¹⁴=16.248 times more often than Ἀτθίδος.

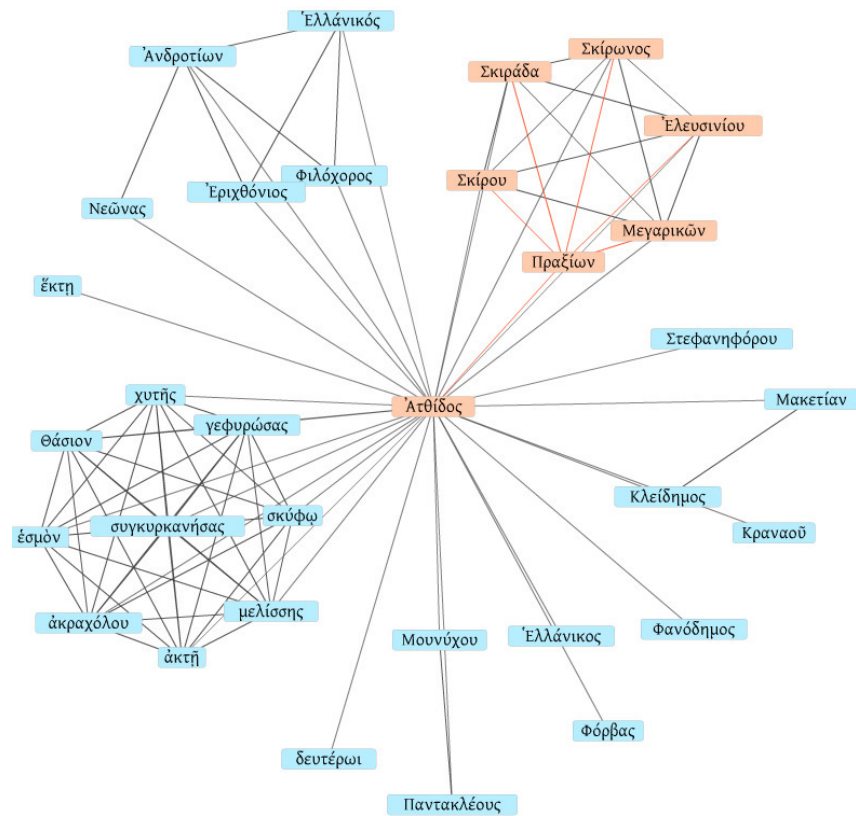


Fig. 7: Graph of Ἀτθίδος,

In this word net a geographic-historic relationship can be inferred from the word Μεγαρικῶν that alludes to a quarrel about Eleusis and the Skira between Athens and Megara.

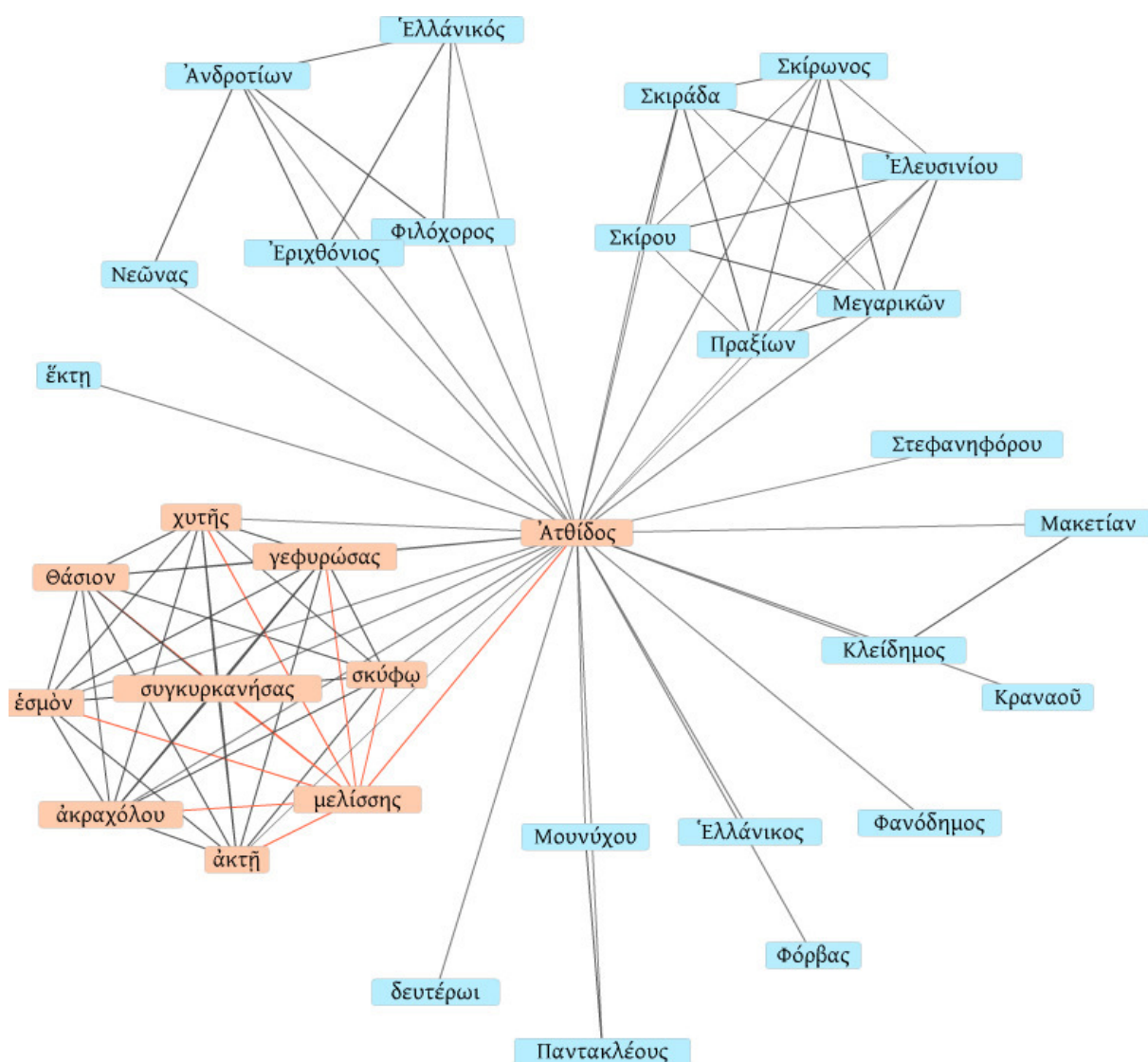


Fig. 8: Graph of Ἄτθιδος,

Here a ritual-cultic relationship that broaches the issue of a certain drinking custom can be inferred from the word σκῦφω.

In figures 8 and 9 a phrase traced from μετανεστήκασιν (3rd pl. part. perf. ind. act. [ionic] of μετανίστημι in the meaning of 'to migrate') has been marked up. Together with νομάδας (adj. acc. fem. of νομάδες in the meaning of grazing/nomadic or acc. pl. of νομάδοι in the meaning of nomadic people / herdsman) it points to a nomadic relationship of migration.

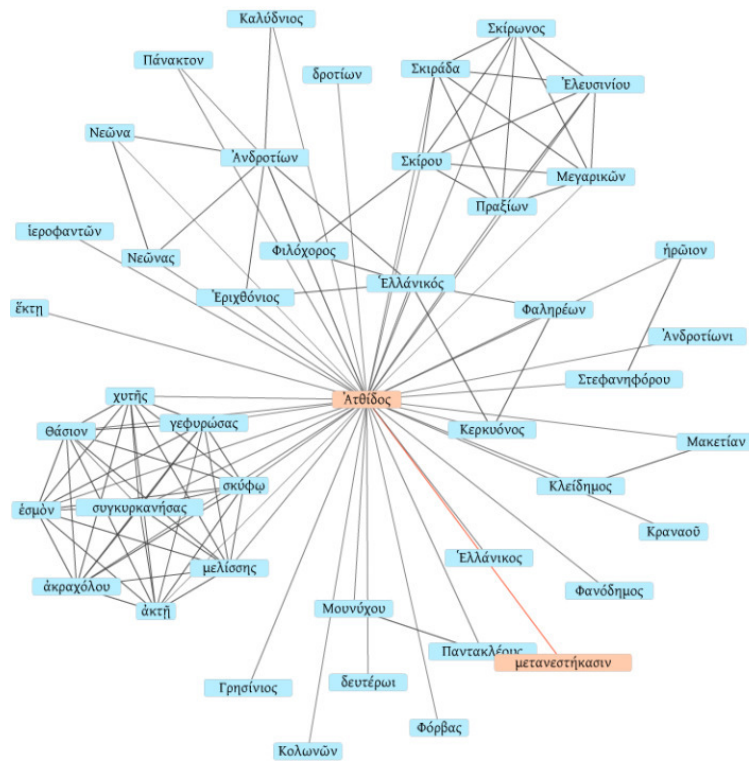


Fig. 9: Graph of Ατθίδος,

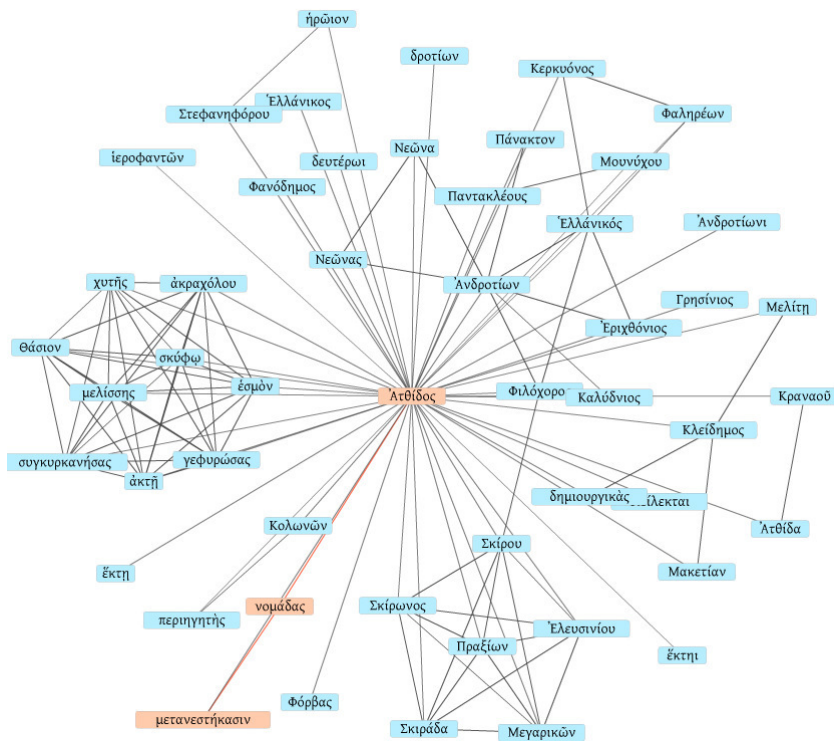


Fig. 10: Graph of Ατθίδος,

Instances yielding both the search word 'Ἀτθίδος' and the cooccurrent 'νομάδας' are shown using the option 'Double Quotation' that is accessible by clicking on the desired word or entering the word ID's (e.g. <http://www.eaqua.net/portal/DoubleQuotation.html?Databases=TLG&WordID1=19175&WordID2=58063>):

Double Quotation Ἀτθίδος und νομάδας
Anzahl 3 (Ἀτθίδος : 276 , νομάδας : 76)
Gefundene Belegstellen

- Τὰ εἰς <u> μονογενῆ ὑπὲρ μίαν συλλαβὴν βαρύνεται, <δόρυ, γόνυ, μέθυ, δάκρυ, πῶϋ, ἄστου>_ἐκλήθη δὲ ἄστου, ὡς Φιλόχορος ἐν α' τῆς Ἀτθίδος »διὰ τὸ πρότερον νομάδας καὶ σποράδην ζῶντας τότε συνελθεῖν καὶ στῆναι ἐκ τῆς πλάνης εἰς τὰς κοινὰς οἰκῆσεις, ὅθεν οὐ μετανεστήκασιν.
Source: Aelius HERODIANUS et Pseudo-HERODIANUS Gramm. Rhet. (0087) (Alexandrinus Romanus - A.D. 2): De prosodia catholica
Vide: NULL
Publication: De prosodia catholica, ed. A. Lentz, Grammatici Graeci, vol. 3.1. Leipzig: Teubner, 1867 (repr. Hildesheim: Olms, 1965): 3-547. (Cod: 143,838: Gramm.)
Document citation: //3,1/354/15t to //3,1/354/19t (Schema: Part+volume/page/line)
- <ἐκλήθη δὲ ἄστου, ὡς Φιλόχορος [ι]<a> Ἀτθίδος, διὰ τὸ πρότερον νομάδας καὶ σποράδην ζῶντας τότε συνελθεῖν καὶ στῆναι ἐκ τῆς πλάνης εἰς τὰς κοινὰς οἰκῆσεις, ὅθεν οὐ μετανεστήκασιν.
Source: PHILOCHORUS Hist. (0583) (Atheniensis - 4-3 B.C.): Fragmenta
Vide: NULL
Publication: Fragmenta, FGrH #328: 3B:98-160. fr. 98: P. Oxy. 10.1241. fr. 229: P. Oxy. 6.853. (Pap: 17,343: Epist., Hist.)
Document citation: //3b,328,F/2a/4 to //3b,328,F/2a/10 (Schema: Volume-Jacoby#-F/fragment/line)
- Ἔκλήθη δὲ ἄστου, ὡς Φιλόχορος ἐν α' τῆς Ἀτθίδος, διὰ τὸ πρότερον νομάδας καὶ σποράδην ζῶντας τότε συνελθεῖν καὶ στῆναι ἐκ τῆς πλάνης εἰς τὰς κοινὰς οἰκῆσεις, ὅθεν οὐ μετανεστήκασιν.
Source: STEPHANUS Gramm. (4028) (Byzantium - A.D. 6): Ethnica (epitome)
Vide: NULL
Publication: Ethnica (epitome), ed. A. Meineke, Stephan von Byzanz. Ethnika. Berlin: Reimer, 1849 (repr. Graz: Akademische Druck- und Verlagsanstalt, 1958): 1-713. (Cod: 101,920: Geogr., Gramm., Lexicogr.)
Document citation: ///139/13t1 to ///139/16t1 (Schema: Page/line)

Fig. 11: Search word Ἀτθίδος, input in the search mask of the eAQUA portal at www.eaqua.net/portal/ . By clicking on νομάδας in the word net the option 'Double Quotation' can be accessed and the instances of the cooccurrences of both words are shown in a new window.

The option 'Double Quotation' shows altogether three sources: The epitome of Stephanus' *Ethnica* from which Felix Jacoby extracted a fragment of the Atthidographer Philochorus (FGrHist no. 328) as no. 3b. The text from Herodian, that contains too the fragment of Philochorus has not been included in Felix Jacoby's collection of fragments, so that the assemblage of sources of eAQUA has a more thorough coverage.

The inspection of the cooccurrence lists points to the same evidence for this context:

The word νομάδας is striking as it appears three times as significant right cooccurrent of Ἀτθίδος.

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ἀκραχόλου (5); ἀκούφω (5); Παντακλέους (5); Μουνύχου (5); F (12); συγκυρκανήσας (4); Σκίρου (5); χυτῆς (5); Πραξίων (4); Ἐλευσινίου (5); Νεώνας (4); Κρανσοῦ (5); FHG (9); μελίσης (5); γεφυρώσας (5); ἐσμών (5); Σκίρωνος (4); ἀκτῆ (5); μετανεστήκασιν (3); Μεγαρικῶν (4); Ἀτθίδος (5); Φαληρέων (3); μάντεω (5); καύματος (5); I (9); κεκληῖσθαι (5); ὠνομάσθαι (5); φησίν (13); βιβλία (6); Ἀρκεσινεῦσιν (2); Ἀνδανίη (2); Ἀλικαρνάσσιος (2); Μινωίταις (2); κατησίμωκα (2); κατεσιλωμένον (2); βουλή (2); ψιλοκιθαριστικῆν (2); Δήμητρος (5); Μελίτη (3); δημιουργικός (3); πῶμα (4); FGrHist (4); Ἀριστάρχειον (2); Ἀμοργίους (2); Ἐπίγονον (2); διαδικασία (2); Κλειδίημος (3); νομάδας (3); γλυκύν (4); Μακετίας (2); Ἐλεγείας (2); φησίν (13); ἐξφκίσθησαν (2); γυναικονόμοι (2); ὁμωνύμοι (2); τινός (9); Κεκροπίδην (2); συγγενομένης (2); ἀπεχειροτονήθη (2); ἐάλωσάν (2); ἐῆς (2); Ἄγραυλον (2); Ἀλωπεκόννησον (2); διεξήλθεν (3); ἐπεποιήκη (2); κιθάραιον (2); μαγεῖρων (3); λύσιν (5); λίθου (5); πειθήμονα (2); κεδνή (2); ὀμογάλακτας (2); θέσμιον (2); Αἰγιαλόν (2); Κήρυξ (2); Ἀλιρρόθιον (2); κόβαλον (2); εὐσγκον (2); σποράδην (3); Θυμοίτης (2); Ἀλκίππην (2); δράματι (3); βωμολόχον (2); νομισθέν (2); Εὐδοξος (3); διαλέκτου (3); αὐτόχθονος (2); Ἀρεοπαγιτῶν (2); Δείναρχος (3); οἰκήσεις (3); θεωρικόν (2); κιθαριστής (2); ἀπέτισε (2); θυγατρός (3); ἡγεμονεύων (2); Ξούθου (2); Ἐριχθονίου (2); φύλον (3); Κεραμεικῶ (2); ἰδίωμα (3);

Fig. 12: Significant co-occurrences of Ἀτθίδος

This cooccurrence is on rank 111 of the most significant co-occurrences of Ἀτθίδος and therefore hard to find manually. In a normal word search this connection would be discovered at best by accident. It refers to a quotation from the Atthis of Philochorus (3. / 2. century BC), who - as was demonstrated by a detailed investigation (Ch.Schubert, Formen der griechischen Historiographie: Die Atthidographen als Historiker Athens, Hermes 138, 2010) - supposed a nomadic phase in the early history of mythical Athens.

This result demonstrates a very unusual context, because what are nomads doing in Attica? The Athenians were proud of their autochthonous development and autochthony is the opposite of nomadism. It seems that the Atthidographers invented a phase in Athenian history to show an evolutionary development from nomadism to settled life. This implies that they have taken over a model from philosophers like Aristoteles and applied it to their own concept of Athenian history.

FGrHist 328,F.2a (= Stephanus, "Ethnica" p.292 Billerbeck):

ἄστυ· ἢ κοινῶς πόλις· διαφέρει δέ, ὅτι τὸ μὲν κτίσμα δηλοῖ ἢ δὲ πόλις καὶ τοὺς πολίτας· „ἐκλήθη δὲ ἄστυ” ὡς Φιλόχορος ἐν ᾧ Ἀτθίδος (FGrHist 328 F 2a) „διὰ τὸ πρότερον νομάδας καὶ σποράδην ζῶντας τότε συνελθεῖν καὶ στήναι ἐκ τῆς πλάνης εἰς τὰς κοινὰς οἰκήσεις, ὅθεν οὐ μετανεστήκασιν· Ἀθηναῖοι δὲ πρῶτοι τῶν ἄλλων ἄστυ καὶ πόλεις ὤκησαν“.

"asty: The polis in general. But there is a difference, in that the one (asty) indicates the physical structure, while polis denotes the citizens also. It was called asty, as Philokhoros (says) in the first (eleventh MS) (book) of the Atthis, on account of the fact that, previously living as scattered nomads, at that time they stood still (stenai) from their wandering and came together into common habitations, from which they have not moved. The Athenians preceded others in building towns (asty) and cities (poleis)." (transl. Harding)

This is also handed down in the „Etymologicum Magnum“, that has been apparently extracted from a work of Oros ‚On Peoples‘.

FGrHist 328,F.2b (= ET. (GEN.) M. p. 160, 5): ἄστυ· ἢ πόλις· Φιλόχορος ἐν τῷ ᾧ τῆς Ἀτθίδος φησίν· «ἄστυ δὲ προσηγορεύσαν τὴν πόλιν διὰ τὸ πρότερον νομάδας καὶ σποράδην ζῶντας τότε συνελθεῖν καὶ στήναι ἐκ τῆς πλάνης εἰς τὰς κοινὰς οἰκήσεις, ὅθεν οὐ μετανέστησαν». οὕτως Ὀρος ἐν ἔθνικῶν.

Asty. The polis. Philokhoros in the first (book) of Atthis says, they gave the name asty to the polis on account of the fact that, previously living as scattered nomads, at the time they stood still from their wandering and came together into common habitations, from which they did not move. So (says) Oros in (the) On Peoples." (transl. Harding)

According to the citation from Stephanus Philochorus had laid down a connection between pre-historic nomadic livelihoods of the Athenians, their initial sedentary lifestyle and their first founding of asty / polis.

Jacoby insisted in his commentary to the two fragments that the first phrase 2a (Ἀθηναῖοι δὲ πρῶτοι τῶν ἄλλων ἄστυ καὶ πόλεις ὤκησαν) is not belonging to the second one because this phrase occurs with almost the same wording in Stephanus s.v. Ἀθήναι:

Jacoby FGrHist (Text) comm. to F2-4, pp. 264: Stephanus, "Ethnica" p. 66 Billerbeck: s.v. Ἀθηναῖοι: ... πρῶτοι γὰρ Ἀθηναῖοι τὰ ἄστυ καὶ τὰς πόλεις εὐρεῖν ἰστοροῦνται, ὅθεν καὶ τὴν ἀκρόπολιν αὐτῶν πόλιν ἐκάλουν κυρίῳ ὀνόματι, ...

Doing that he is dissolving the causally determination that results from the text in Stephanus. At first glance this seems even feasible for why is the Atthidographer Philochoros denominating the Athenians as nomadic people? The result is a new perspective as the official politics in Athens was propagating the status of autochthony for the Athenian people. The Atthidographers as historians of Athens seem therefore to disagree with the official Athenian idea of origin. Only those in the 5th and 4th century BC evolving ideas of cultural emergence may explain a stage of nomadic livelihood in the Athenian pre-history that can be thus reconstructed for the Atthidographers. These ideas determinate the evolution of the human culture as progressively in different stages from nomadic to sedentary livelihood. As can be inferred from the comparison of other fragments of the Atthidographers with the citation of Philochorus that has been found using the eAQUA search function, this paradigm has been inherited by the Atthidographers from philosophers and anthropologists.

3. Example: Ἀνάχαρσις (TLG-E)

The Scythian Anacharsis, one of the ancient nomad people, had undertaken one of the most tremendous careers that was preserved from antiquity to today. As a member of the nomad people he has been appointed as one of the Seven Sages as well as the sharp criticism of the benefits of Greek civilization. As a wise man he survived up to mediaeval times, just to be put alive again in modern times and eventually Joseph Beuys gave him a new existence as his *alter ego*.

The Scythian Anacharsis is one of the most interesting members of the Seven Sages whose effects had the longest duration that lasted up to the present. First he is mentioned in Herodotus (4,46; 76-77): he is the stranger that came to Greece both to learn and - being himself a wise man - to teach others. Herodotus outlines the specific way of the Scythians even though he criticizes other aspects of their livelihood.

As one of the Scythian nomad people he is clearly distinct from the other wise men (Solon, Thales, Bias, Periander etc.), albeit the role of a culture hero is also appointed to him. He is credited for the discovery of bellows, the potter's wheel and the anchor with two flukes (Platon, *de re publica* 600 a; Aristoteles, *analytica posteriora* 78 b; *ethica Nicomachea* 1176 a 30ff, b 31ff.; Ephoros (in Strabo 7, 3, 9 [302]). In Hellenistic times he is referred for a collection of epistles and in the imperial literature typical elements of nomad livelihood such as mobility, absence of accumulation of material wealth, nutrition consisting of milk and cheese etc. are attributed to him as a paradigm for an ideal livelihood (espec. in Plutarch, *convivium septem sapientum* 1 ff. (= *moralia* 146 a1ff.); from the epistle-collection of Anacharsis: ep. 9 (= *Anacharsidis epistulae*, ed. F.H. Reuters, Bonn 1957); cf. Diogenes Laertios, *vitae philosophorum* with the vita of Anacharsis]).

The tradition of late antiquity and mediaeval times acknowledges this nomadic person as member of the Seven Sages (Herodot 4, 46 and 4, 76-77). According to the in the antiquity well known paradigm the myth of 'noble' and the 'evil' savage rises again with the discovery of America and the subsequent afresh facing with 'the foreign'. In the 1788 published novel *Voyage du jeune Anacharsis en Grèce, dans le milieu du IV^e siècle avant l'ère vulgaire* by J.-J. Barthélemy the Scythian gains even a grandson with the 'younger Anacharsis'. During the French Revolution the German baron J.-B. Cloots having an universalist and anti religious ideal of freedom refers explicitly to the stranger with Greek origin Anacharsis and calls himself especially while he was member of the National Convention (since 1792) 'Anacharsis Cloots' (Cf. in his writing L' Orateur du genre humain, ou Dépêche du Prussien Cloots au Prussien Hertzeberg): In the 20th century Joseph Beuys ties on the same tradition with Anacharsis declaring him with the adaption of the name JosephAnacharsis ClootsBeuys as his alter ego as well as paying him tribute in various works.³

³ E.g. in the exhibition „Arena“ inthe Galleria L'Attico in Rome 1972.

On the other hand the inspection of the cooccurrence lists especially of those who appear only once or, yields a stunning result:

Signifikante linke Kookkurrenzen für *Ἀνάχαρις*

Σκυθῖν (3); ὄ (40); πλανῆ (3); μνηῦσαι (3); Τόξαρις (2); Σκύθης (3); θεραπόντων (3); παρείη (3); Σόλωνος (3); ὑμνεῖται (1); ἵππημολγοῖς (1); Ὑποφθάσας (1); ΣΚΥΘΗΣ (1); εμαρτύρησεν (1); ΠΡΟΞΕΝΟΣ (1); ὄψεις (3); ἀφικόμενον (2); ἐρωτήσας (2); μεθύειν (2); Πρώτος (2); Ἀχιλλῆιον (1); Σέντις (1); Ἐλλόγιμον (1); Ζήνιος (1); ἔδειξεν (3); Ἔς (2); Ζήνιος (1); ἐπισπιζονται (1); Ἥγάσθη (1); Ἄβαρίς (1); κελεύσαι (2); σοφός (3); Ὑλαῖν (1); μεγαλοπρεπέως (1); γενήθη (1); ἔνθεν (3); στήροι (1); Ἀναχάριος (1); Σέντιος (1); Πόλλιος (1); Σόλων (2); πλέη (1); Σκυθιστῆ (1); Ξενιάδης (1); οἰκίαν (3); περιάσιν (1); ἀμαθέστατα (1); Κυζικηνοῦς (1); καταίροντες (1); Ὀφίος (1); ναυτιλλομένους (1); Δηϊόκης (1); Πριηνεύς (1); ὀρτήν (1); Τόξαρι (1); σοφιστεῖαν (1); Σκυθικήν (1); οὐτινός (1); ἐνδύντες (1); Σκυθῶν (2); Χεῖλων (1); ΑΝΑΧΑΡΣΙΣ (1); γελωτοποιός (1); ΑΥΤΟΥ (2); Πόλλις (1); ἀκμάσαι (1); ἀναλεγόμενοι (1); Μετά (3); οἰκίης (1); Μητρί (1); Ὑπερβορείος (1); παρεγενήθη (1); σπαράττειν (1); σκυλάκια (1); ἔφη (5); δεινδρέων (1); ἀνάγοντας (1); κάγαθὰ (1); ἐμμήθη (1); Τέταρτος (1); καλεομένην (1); καταδύς (1); δρόμον (2); Σκυθικοῦ (1); Εὐράων (1); Ὀφίς (1); Εὐξεινος (1); μέλλωμεν (1); πτοῖαν (1); Ἀνάχαριν (1); Σκυθῶν (1); διαλεκτικοῖς (1); τινί (3); ἔλλόγιμος (1); Χεῖρωνι (1); Πιττακός (1); ἀπίκετο (1); Λέσβιος (1); Βίαις (1); ΤΟΥ (2);

Fig. 16: search word Ἀνάχαρις, Input in the search field of the search function in the eAQUA portal at www.eaqua.net/portal/; detail of the cooccurrence list

In this list of left cooccurrences next to some of the Seven Wise (Pittakos, Chilon, Solon), besides a literary look-alike of Anacharsis called Toxaris also a certain Xeniadēs (1) is mentioned, who occurs a single time in ancient literature as cooccurrent of Anacharsis. Invoking all instances (cf. fig.17 with an example) for Anacharsis (by selecting von „all“) and a simple search for Χενιάδης or Χενι* yields the textual basis of this cooccurrence.

112. καὶ δὴ ἀνέλιον μὲν αὐτὸ Ξενοφάνης τε ὁ Κολοφώνιος καὶ Ξενιάδης ὁ Κορίνθιος καὶ Ἀνάχαρις ὁ Σκύθης καὶ Πρωταγόρας καὶ Διονυσόδωρος, πρὸς δὲ τοῦτοις Γοργίας ὁ Λεοντῖνος καὶ Μητρώδωρος ὁ Χῖος καὶ Ἀναξαρχὸς ὁ εὐδαίμωνικὸς καὶ Μόνιμος ὁ κύων.

Source: SEXTUS EMPIRICUS Phil. (0544) (NULL - A.D. 2-3); *Adversus mathematicos*

Vide: NULL

Publication: *Adversus mathematicos*, ed. H. Mutschmann and J. Mau, *Sexti Empirici opera*, vols. 2 & 3 (2nd edn.). Leipzig: Teubner, 2:1914; 3:1961: 2:3-429; 3:1-177. Lib. 1 (*Adversus mathematicos et grammaticos*): vol. 3, pp. 1-82. Lib. 2 (*Adversus rhetores*): vol. 3, pp. 83-106. Lib. 3 (*Adversus geometras*): vol. 3, pp. 107-132. Lib. 4 (*Adversus arithmeticos*): vol. 3, pp. 133-140. Lib. 5 (*Adversus astrologos*): vol. 3, pp. 141-162. Lib. 6 (*Adversus musicos*): vol. 3, pp. 163-177. Lib. 7 (*Adversus dogmaticos 1*) (= *Adversus logicos 1*): vol. 2, pp. 3-103. Lib. 8 (*Adversus dogmaticos 2*) (= *Adversus logicos 2*): vol. 2, pp. 104-212. Lib. 9 (*Adversus dogmaticos 3*) (= *Adversus physicos 1*): vol. 2, pp. 213-302. Lib. 10 (*Adversus dogmaticos 4*) (= *Adversus physicos 2*): vol. 2, pp. 303-374. Lib. 11 (*Adversus dogmaticos 5*) (= *Adversus ethicos*): vol. 2, pp. 375-429. (Cod: 155,837: Phil.)

Document citation: //7/48p/1t1 to //7/48p/6t1 (Schema: Book/section/line)

Fig. 17: search word Ἀνάχαρις, input in the search field of the search function in the eAQUA portal at www.eaqua.net/portal/; Invoking all instances, search for Ξενι*

In the work of Sextus Empiricus, *Adversos Mathematicos* 7,48,3 (Mutschmann/Mau) the Scythian Anacharsis is mentioned in context with Xenophanes, Protagoras, Gorgias as well as Dionysiodor und Anaxarchos and Xeniadēs. Sextus talks here about truth and mentions some philosophers whom he calls dogmatists. Their opinions about the criterion for classifying truth differ from one another. Here Anacharsis is mentioned together with the most famous philosophers of the 5th century BC whose attitude towards the human scope of recognition defined it as limited and therefore influenced their definition of 'truth' that can be approximated only relatively. Gorgias (Gorgias DK 82 B3) maintains probably the most famous position in this chain of arguments:

'Nothing exists. Even if something exists, nothing can be known about it. Even if something can be known about it, knowledge about it can't be communicated to others.' Primarily this is about leading mankind astray by the visible things and the ostensibility of the specified objectivity of the factuality (Schubert 2007). Protagoras and Xenophanes too were famous for such positions:

Xenophanes (DK 21 B 15):

ἀλλ' εἰ χεῖρας ἔχον βόες <ἵπποι τ'> ἢ ἐ λέοντες ἢ γράψαι χεῖρεσσι καὶ ἔργα τελεῖν ἅπερ ἄνδρες, ἵπποι μὲν θ' ἵπποισι, βόες δὲ τε βουσὶν ὁμοίως καὶ <κε> θεῶν ἰδέας ἔγραψον καὶ σώματ' ἐποίησαν τοιαῦθ', οἷόν περ καὶ οἱ δέμας εἶχον <ἐκαστοί>.

But if cattle and horses or lions had hands, or were able to draw with their hands and do the works that men can do, horses would draw the forms of the gods like horses and cattle like cattle and they would make their bodies such as they each had themselves. (transl. Kathleen Freeman)

Protagoras (DK 80 B4):

περὶ μὲν θεῶν οὐκ ἔχω εἰδέναι, οὐθ' ὡς εἰσὶν οὐθ' ὡς οὐκ εἰσὶν οὐθ' ὅποιοί τινες ἰδέαν· πολλὰ γὰρ τὰ κωλύοντα εἰδέναι ἢ τ' ἀδηλότης καὶ βραχυὺς ὦν ὁ βίος τοῦ ἀνθρώπου.

About the gods, I am not able to know whether they exist or do not exist, nor what they are like in form; for the factors preventing knowledge are many: the obscurity of the subject, and the shortness of human life. (transl. Kathleen Freeman)

It is possible to look at cooccurrences which appear only one single time in the whole corpus of TLG. With www.eaqua.net/sti (cf. R. Kath in this volume) the graph of such single cooccurrences – here Anacharsis and Xenias – shows like this:

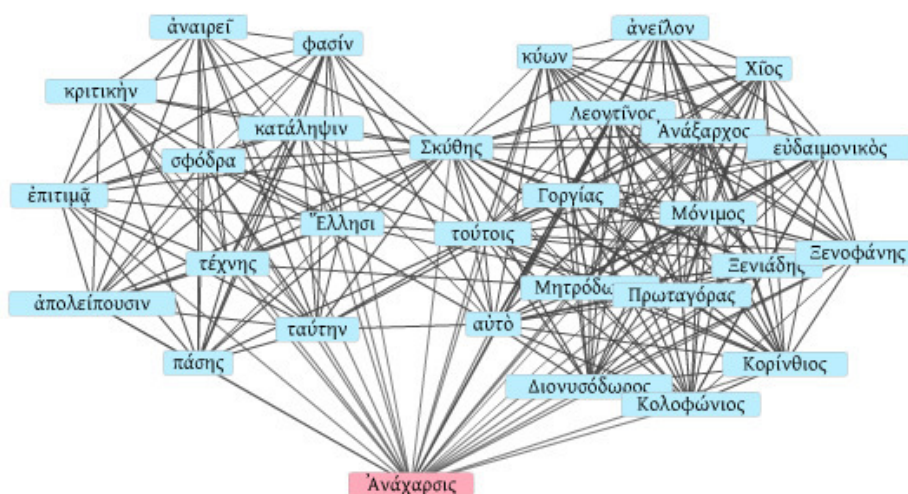


Fig. 18: Graph of Sext. Emp. 7,55-56

To meet the nomadic Anacharsis in this context is a stunning fact, as he was indeed known as a wise man in the tradition (see above) but not as a philosopher who might have engaged in the argumentations of epistemology. Instead Sextus Empiricus cites extensively Anacharsis' philosophical ideas:

7,55-59: Καὶ Ἀνάχαρις, ὡς φασίν, ὁ Σκύθης πάσης τέχνης τὴν κριτικὴν κατάληψιν ἀναιρεῖ, σφόδρα τε ἐπιτιμᾶ τοῖς Ἑλλήσι ταύτην ἀπολείπουσιν· τίς γὰρ ἐστὶ, φησίν, ὁ κρίνων τι τεχνικῶς; ἀρὰ γε ὁ ἰδιώτης ἢ ὁ τεχνίτης; ἀλλ' ἰδιώτην μὲν οὐκ ἂν εἴποιμεν· πετηρῶται γὰρ πρὸς τὴν γνῶσιν τῶν τεχνικῶν ἰδιωμάτων, καὶ ὡς οὔτε τυφλὸς λαμβάνει τὰ τῆς ὀράσεως ἔργα οὔτε κωφὸς τὰ τῆς ἀκοῆς, οὕτως οὐδὲ ὁ ἄτεχνος ὀξυωπεῖ πρὸς τὴν κατάληψιν τοῦ τεχνικῶς ἀποτελεσθέντος, ἐπεὶ τοι ἔάν καὶ τούτῳ μαρτυρῶμεν τὴν τινος πράγματος τεχνικοῦ κρίσιν, οὐ διοίσει τῆς τέχνης ἢ ἀτεχνία, ὅπερ ἐστὶν ἄτοπον· ὥστε οὐχ ὁ ἰδιώτης ἐστὶ κριτὴς τῶν τεχνικῶν ἰδιωμάτων. (56) λείπεται ἄρα λέγειν τὸν τεχνίτην· ὁ πάλιν ἐστὶν ἀπίθανον. ἦτοι γὰρ ὁ ὁμόζηλος τὸν ὁμόζηλον ἢ ὁ ἀνομόζηλος τὸν ἑτερόζηλον κρίνει. ἀλλ' ὁ ἑτερόζηλος οὐχ οἷός τέ ἐστι κρίνειν τὸν ἑτερόζηλον· τῆς γὰρ ἰδίας τέχνης ἐστὶν ἐπιγνώμων, (57) πρὸς δὲ τὴν ἀλλοτρίαν ἰδιώτης καθέστηκεν. καὶ μὴν οὐδὲ <ὁ> ὁμόζηλος τὸν ὁμόζηλον δύναται δοκιμάζειν· αὐτὸ γὰρ τοῦτο ἐζητοῦμεν, τίς ἐστὶν ὁ τούτους κρίνων ἐν μιᾷ δυνάμει τὸ ὅσον ἐπὶ τῇ αὐτῇ τέχνῃ καθεστῶτας. ἄλλως τε, εἴπερ οὗτος ἐκεῖνον κρίνει, γενήσεται τὸ αὐτὸ κρινόν τε καὶ κρινόμενον πιστὸν τε καὶ ἄπιστον· (58) ἢ μὲν γὰρ ὁμόζηλός ἐστιν ὁ ἕτερος τῶν κρινόμενων, κρινόμενος καὶ αὐτὸς ἄπιστος ἔσται, ἢ δὲ κρίνει, πιστὸς γενήσεται. οὐ δυνατόν δὲ τὸ αὐτὸ καὶ κρινόν καὶ κρινόμενον καὶ πιστὸν καὶ ἄπιστον ὑπάρχειν· οὐκ ἄρα ἐστὶ τις ὁ κρίνων τεχνικῶς. διὰ δὲ τοῦτο οὐδὲ κριτήριον· (59) τῶν γὰρ κριτηρίων τὰ μὲν ἐστὶ τεχνικὰ τὰ δὲ ἰδιωτικά, οὔτε δὲ τὰ ἰδιωτικά κρίνει, ὥσπερ οὐδὲ ὁ ἰδιώτης, οὔτε τὰ τεχνικά, ὥσπερ οὐδὲ ὁ τεχνίτης, διὰ τὰς ἔμπροσθεν εἰρημένας αἰτίας. τοῖνυν οὐδὲν ἐστὶ κριτήριον.

„(55) Anacharsis the Scythian also, as they say, destroys the apprehension which judges concerning every art, and strongly censures the Greeks for accepting it. "For who, "says he," is the man who judges a thing by rules of art? Is he the non-expert or the expert artist? But surely we could not say that he is the non-expert; for he is lacking in knowledge of the special features of the art, and just as the blind man does; not perceive the effects of vision, nor the deaf those of hearing, so neither is the non-expert keen of sight to apprehend the result produced by artistic methods; since in fact, were we to entrust to him the judgement of any product of art, there will be no difference between lack of art and art, which is absurd. So that the non-expert is not the judge of the special features of art.

(56) It remains, then, to say that the expert artist is the judge; and this again is improbable. For either the fellow-craftsman judges the fellow-craftsman, or the man of one craft the man of another craft. But the man of one craft is incapable of judging the man of another craft; for he is learned in his own art,

(57) but in regard to another man's he is in the position of a non-expert. Nor in fact can the fellow-craftsman pass judgement on his fellow-craftsman; for precisely this was our question - Who is he that judges those who stand on the same level inasmuch as they are engaged in the same art? And besides, if this fellow-craftsman judges that one, the same thing will be both judging and judged, both trusted and distrusted;

(58) for in so far as the other man is a fellow-craftsman of the man who is being judged, he himself also will be subject to judgement and distrusted, whereas, in so far as he is giving judgement, he will be trusted. But it is not possible for the same thing to be both judging and judged, trusted and distrusted. Therefore there is none who judges by rules of art. And because

(59) of this there is no criterion either; for of criteria. Some are technical, others non-technical, but, for the reasons already stated, neither the non-technical criteria judge any more than the non-expert, nor the technical any more than the expert artist. So then no criterion exists:' (transl. Bury)

The citation is one of the longest testimonies and denoted as verbatim. Only in his pseudo-epigraphic epistles (Reuters 1963) even longer texts could be found ascribed to his name. Commonly they are seen as pseudo-epigraphic and classified as Hellenistic works. J. F. Kindstrand (1981, 49) did not include this passage into his edition of sayings and testimonies of Anacharsis. Steinmetz believes that this citation is a verbatim rendition of the 5th century BC philosopher (see below) but thinks in contrast that this passage is an alleged epistle of Anacharsis, an amendment from a later time (Steinmetz 2000, 38).

This ought to be a purely sceptic terminology and process of thought. But when comparing this location with Herodotus 4,77, where Anacharsis is credited with a similar conciliatorical formulated judgement of skills and non-skills of the Greeks or respectively his implicit criticism of it, it is obvious that something counts for placing the opinion into the 5th century BC (cf. Schubert 2010, 157ff.). At least it can be argued here that the athetesis of this testimony has been made too rash so far.

4. Example: Ξενιάδης

The context of this search result yields further surprises: for the first and only time a philosopher of the 5th century BC is mentioned: a certain Xenias from Corinth. In his time he was famous enough that Democritus held him worthy of mentioning and referred to him (Sext. Emp. Adv. Math. 7,53). This led to an entry in the "Universallexikon" by Zedler, in Wikipedia and a number of his own in the authoritative edition of the Pre-Socratics by Diels / Kranz (DK 81). Only an excerpt of four lines from Sextus Empiricus is there accredited to him, whilst he is not mentioned anymore in the edition of the Pre-Socratics by Kirk/Raven/Schofield.

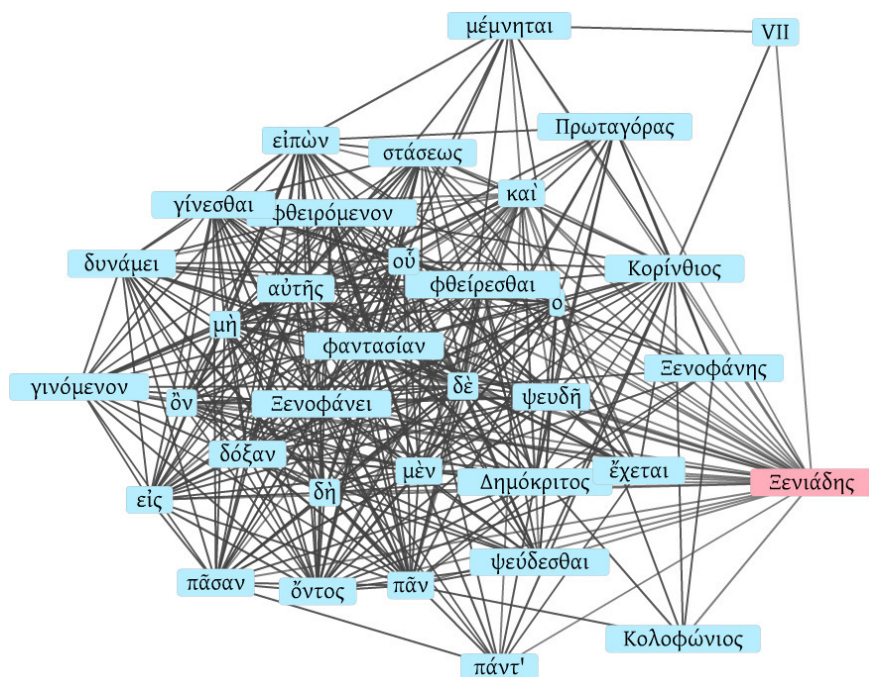


Figure 18: search word Ξενιάδης, input in the search field of the search function in the eAQUA portal at www.eaqua.net/portal/; settings: significance measure Log-likelihood, automatic pre-setting; threshold for function words: 0

He is treated briefly solely in Guthrie's history of philosophy (*The Sophists*, CUP 1971, 200). On the contrary Steinmetz considers in his studies on Xenophanes (*Kleine Schriften*, ed. by S. Koster, 2000, 37f.) Sextus Empiricus' report about the group of philosophers who denied the criterion for the recognition of truth, not only as old but also as a verbatim citation of the teachings of these philosophers and sophists (Steinmetz 2000, 38 assumes Timon from Phleius (320-230 BC) as Sextus' source).

The display of all sources in eAqua shows nine instances of which the first three taken from Diogenes Laertius are not referring to the philosopher Xeniadēs but to a Corinthian merchant of the 4th century BC.:

Belegstellen für Ξενιάδης

Anzahl 9

1. VII 53 **Ξενιάδης** δὲ ὁ Κορίνθιος, οὗ καὶ Δ.
Source: *DEMOCRITUS Phil. (1304) (Abderita - 5-4 B.C.): Fragmenta*
Vide: *Cf. et BOLUS Phil. et Med. (1306)*
Publication: *Fragmenta*, ed. H. Diels and W. Kranz, *Die Fragmente der Vorsokratiker*, vol. 2, 6th edn. Berlin: Weidmann, 1952 (repr. Dublin/Zurich: 1966): 130-224. fr. 1-300, 302, 304-309. fr. 300 = *fragmenta Boli. (Q: 14,834: Alchem., Gnom., Phil.)*
Document citation: *///163a/1tit to ///163a/2tit (Schema: Fragment/line)*
2. " ὠνεῖται δὴ αὐτὸν ὁ **Ξενιάδης** καὶ ἀπαγαγὼν εἰς τὴν Κόρινθον ἐπέστησε τοῖς ἑαυτοῦ παιδίοις καὶ πᾶσαν ἐνεχείρισε τὴν οἰκίαν.
Source: *DIOGENES LAERTIUS Biogr. (0004) (NULL - A.D. 3): Vitae philosophorum*
Vide: *NULL*
Publication: *Vitae philosophorum*, ed. H.S. Long, *Diogenis Laertii vitae philosophorum*, 2 vols. Oxford: Clarendon Press, 1964 (repr. 1966): 1:1-246; 2:247-565. (Cod: 114,802: *Biogr., Doxogr.*)
Document citation: *///6/74t20-81/8t to ///6/74t20-81/10t (Schema: Book//section/line)*
3. πρὸς τοῦτον συνεχῆς ἀφικνούμενος ὁ **Ξενιάδης** ὁ τὸν Διογένην ἐωνημένος τὴν ἀρετὴν αὐτοῦ καὶ τῶν ἔργων καὶ τῶν λόγων διηγούμενος εἰς ἔρωτα τάνδρος ἐνέβαλε τὸν Μόνιμον.

- Source: *DIOGENES LAERTIUS Biogr. (0004) (NULL - A.D. 3): Vitae philosophorum*
Vide: NULL
- Publication: *Vitae philosophorum, ed. H.S. Long, Diogenis Laertii vitae philosophorum, 2 vols. Oxford: Clarendon Press, 1964 (repr. 1966): 1:1-246; 2:247-565. (Cod: 114,802: Biogr., Doxogr.)*
Document citation: //6/82t82-83/2t to //6/82t82-83/5t (Schema: Book//section/line)
4. Τῶν διαλαβόντων τοίνυν περὶ κριτηρίου οἱ μὲν εἶναι τοῦτο ἀπεφάνησαν, ὡς οἱ Στωικοὶ καὶ ἄλλοι τινές, οἱ δὲ μὴ εἶναι, ὡς ἄλλοι τε καὶ ὁ Κορίνθιος **Ξενοφάνης** καὶ Ξενοφάνης ὁ Κολοφώνιος, λέγων δόκος δ' ἐπὶ πᾶσι τέτυκται:
Source: *SEXTUS EMPIRICUS Phil. (0544) (NULL - A.D. 2-3): Pyrrhoniae hypotyposes*
Vide: NULL
Publication: *Pyrrhoniae hypotyposes, ed. H. Mutschmann, Sexti Empirici opera, vol. 1. Leipzig: Teubner, 1912: 3-131, 133-209. *Lib. 1-3. (Cod: 53,497: Phil.)*
Document citation: //2/18p/1t1 to //2/18p/5t1 (Schema: Book//section/line)
5. καὶ δὴ ἀνεῖλον μὲν αὐτὸ Ξενοφάνης τε ὁ Κολοφώνιος καὶ **Ξενοφάνης** ὁ Κορίνθιος καὶ Ἀνάχαρσις ὁ Σκυῦθης καὶ Πρωταγόρας καὶ Διονυσόδωρος, πρὸς δὲ τούτοις Γοργίας ὁ Λεοντῖνος καὶ Μητροδῶρος ὁ Χῖος καὶ Ἀνάξαρχος ὁ εὐδαιμονικὸς καὶ Μόνιμος ὁ κύων.
Source: *SEXTUS EMPIRICUS Phil. (0544) (NULL - A.D. 2-3): Adversus mathematicos*
Vide: NULL
Publication: *Adversus mathematicos, ed. H. Mutschmann and J. Mau, Sexti Empirici opera, vols. 2 & 3 (2nd edn.). Leipzig: Teubner, 2:1914; 3:1961: 2:3-429; 3:1-177. Lib. 1 (Adversus mathematicos et grammaticos): vol. 3, pp. 1-82. Lib. 2 (Adversus rhetores): vol. 3, pp. 83-106. Lib. 3 (Adversus geometras): vol. 3, pp. 107-132. Lib. 4 (Adversus arithmeticos): vol. 3, pp. 133-140. Lib. 5 (Adversus astrologos): vol. 3, pp. 141-162. Lib. 6 (Adversus musicos): vol. 3, pp. 163-177. Lib. 7 (Adversus dogmaticos 1) (= Adversus logicos 1): vol. 2, pp. 3-103. Lib. 8 (Adversus dogmaticos 2) (= Adversus logicos 2): vol. 2, pp. 104-212. Lib. 9 (Adversus dogmaticos 3) (= Adversus physicos 1): vol. 2, pp. 213-302. Lib. 10 (Adversus dogmaticos 4) (= Adversus physicos 2): vol. 2, pp. 303-374. Lib. 11 (Adversus dogmaticos 5) (= Adversus ethicos): vol. 2, pp. 375-429. (Cod: 155,837: Phil.)*
Document citation: //7/48p/1t1 to //7/48p/6t1 (Schema: Book//section/line)
6. **Ξενοφάνης** δὲ ὁ Κορίνθιος, οὗ καὶ Δημόκριτος μέμνηται, πάντ' εἰπὼν ψευδῆ, καὶ πᾶσαν φαντασίαν καὶ δόξαν ψεύδεσθαι, καὶ ἐκ τοῦ μὴ ὄντος πᾶν τὸ γινόμενον γίνεσθαι, καὶ εἰς τὸ μὴ ὄν πᾶν τὸ φθειρόμενον φθειρεσθαι, δυνάμει τῆς αὐτῆς ἔχεται τῷ Ξενοφάνει στάσεως.
Source: *SEXTUS EMPIRICUS Phil. (0544) (NULL - A.D. 2-3): Adversus mathematicos*
Vide: NULL
Publication: *Adversus mathematicos, ed. H. Mutschmann and J. Mau, Sexti Empirici opera, vols. 2 & 3 (2nd edn.). Leipzig: Teubner, 2:1914; 3:1961: 2:3-429; 3:1-177. Lib. 1 (Adversus mathematicos et grammaticos): vol. 3, pp. 1-82. Lib. 2 (Adversus rhetores): vol. 3, pp. 83-106. Lib. 3 (Adversus geometras): vol. 3, pp. 107-132. Lib. 4 (Adversus arithmeticos): vol. 3, pp. 133-140. Lib. 5 (Adversus astrologos): vol. 3, pp. 141-162. Lib. 6 (Adversus musicos): vol. 3, pp. 163-177. Lib. 7 (Adversus dogmaticos 1) (= Adversus logicos 1): vol. 2, pp. 3-103. Lib. 8 (Adversus dogmaticos 2) (= Adversus logicos 2): vol. 2, pp. 104-212. Lib. 9 (Adversus dogmaticos 3) (= Adversus physicos 1): vol. 2, pp. 213-302. Lib. 10 (Adversus dogmaticos 4) (= Adversus physicos 2): vol. 2, pp. 303-374. Lib. 11 (Adversus dogmaticos 5) (= Adversus ethicos): vol. 2, pp. 375-429. (Cod: 155,837: Phil.)*
Document citation: //7/53p/1t1 to //7/53p/5t1 (Schema: Book//section/line)
7. εἰ γὰρ κριτήριον ἀπολειπτέον τὴν φαντασίαν, ἦτοι πᾶσαν ἀληθῆ φαντασίαν λεκτέον εἶναι, καθὼς ἔλεγεν ὁ Πρωταγόρας, ἢ πᾶσαν ψευδῆ, ὡς ἔφασκε **Ξενοφάνης** ὁ Κορίνθιος, ἢ τινὰ μὲν ἀληθῆ τινὰ δὲ ψευδῆ, ὡς οἱ ἀπὸ τῆς Στοᾶς καὶ τῆς Ἀκαδημίας, ἔτι δὲ τοῦ Περιπάτου.
Source: *SEXTUS EMPIRICUS Phil. (0544) (NULL - A.D. 2-3): Adversus mathematicos*
Vide: NULL
Publication: *Adversus mathematicos, ed. H. Mutschmann and J. Mau, Sexti Empirici opera, vols. 2 & 3 (2nd edn.). Leipzig: Teubner, 2:1914; 3:1961: 2:3-429; 3:1-177. Lib. 1 (Adversus mathematicos et grammaticos): vol. 3, pp. 1-82. Lib. 2 (Adversus rhetores): vol. 3, pp. 83-106. Lib. 3 (Adversus geometras): vol. 3, pp. 107-132. Lib. 4 (Adversus arithmeticos): vol. 3, pp. 133-140. Lib. 5 (Adversus astrologos): vol. 3, pp. 141-162. Lib. 6 (Adversus musicos): vol. 3, pp. 163-177. Lib. 7 (Adversus dogmaticos 1) (= Adversus logicos 1): vol. 2, pp. 3-103. Lib. 8 (Adversus dogmaticos 2) (= Ad-*

- versus logicos 2): vol. 2, pp. 104-212. Lib. 9 (Adversus dogmaticos 3) (= Adversus physicos 1): vol. 2, pp. 213-302. Lib. 10 (Adversus dogmaticos 4) (= Adversus physicos 2): vol. 2, pp. 303-374. Lib. 11 (Adversus dogmaticos 5) (= Adversus ethicos): vol. 2, pp. 375-429. (Cod: 155,837: Phil.)*
Document citation: //7/388p/3t1 to //7/389p/1t1 (Schema: Book//section/line)
8. **Ξενιάδης** μὲν οὖν ὁ Κορίνθιος, ὡς ἀνώτερον ὑπεδείκνυμεν, μὴθὲν εἶναι φησιν ἀληθές:
Source: *SEXTUS EMPIRICUS Phil. (0544) (NULL - A.D. 2-3): Adversus mathematicos*
Vide: NULL
Publication: *Adversus mathematicos*, ed. H. Mutschmann and J. Mau, *Sexti Empirici opera*, vols. 2 & 3 (2nd edn.). Leipzig: Teubner, 2:1914; 3:1961: 2:3-429; 3:1-177. Lib. 1 (*Adversus mathematicos et grammaticos*): vol. 3, pp. 1-82. Lib. 2 (*Adversus rhetores*): vol. 3, pp. 83-106. Lib. 3 (*Adversus geometras*): vol. 3, pp. 107-132. Lib. 4 (*Adversus arithmeticos*): vol. 3, pp. 133-140. Lib. 5 (*Adversus astrologos*): vol. 3, pp. 141-162. Lib. 6 (*Adversus musicos*): vol. 3, pp. 163-177. Lib. 7 (*Adversus dogmaticos 1*) (= *Adversus logicos 1*): vol. 2, pp. 3-103. Lib. 8 (*Adversus dogmaticos 2*) (= *Adversus logicos 2*): vol. 2, pp. 104-212. Lib. 9 (*Adversus dogmaticos 3*) (= *Adversus physicos 1*): vol. 2, pp. 213-302. Lib. 10 (*Adversus dogmaticos 4*) (= *Adversus physicos 2*): vol. 2, pp. 303-374. Lib. 11 (*Adversus dogmaticos 5*) (= *Adversus ethicos*): vol. 2, pp. 375-429. (Cod: 155,837: Phil.)
Document citation: //8/5p/1t1 to //8/5p/3t1 (Schema: Book//section/line)
9. VII 53 **Ξενιάδης** δὲ ὁ Κορίνθιος, οὗ καὶ Δημόκριτος [68 B 163] μέμνηται, πάντ' εἰπὼν ψευδῆ καὶ πᾶσαν φαντασίαν καὶ δόξαν ψεῦδεσθαι καὶ ἐκ τοῦ μὴ ὄντος πᾶν τὸ γινόμενον γίνεσθαι καὶ εἰς τὸ μὴ ὄν πᾶν τὸ φθειρόμενον φθείρεσθαι, δυνάμει τῆς αὐτῆς ἔχεται τῷ Ξενοφάνει στάσεως.
Source: *XENIADES Soph. (2355) (Corinthius - 5 B.C.?) : Testimonium*
Vide: NULL
Publication: *Testimonium*, ed. H. Diels and W. Kranz, *Die Fragmente der Vorsokratiker*, vol. 2, 6th edn. Berlin: Weidmann, 1952 (repr. Dublin/Zurich: 1966): 271. (NQ: 51: Test.)
Document citation: //1/1 to //1/4 (Schema: Fragment/line)

Figure 19: search word Ξενιάδης, input in the search field of the search function in the eAQUA portal at www.eaqua.net/portal/; invoking all instances.

By these citations from Sextus, which can be detected by eAQUA, Xenias is better documented than some Atthidographer or pre-socratic philosopher in Diels/Kranz, where e.g. Apollodor (DK 74) or Lycophron (DK 83) have less instances.

3. Conclusion

Although a final evaluation of the significance measures used is still under way, and despite numerous deficiencies of the digital text resources, we conclude that the eAQUA search function presented above can be considered a novel and innovative method for the digital classics. In the traditional way of exploring historical texts insights on a "higher level" are very time consuming and require substantial experience and intimate knowledge of the ancient texts. But sometimes, especially in authoritative editions, some names, facts, persons or contexts are rarely mentioned or talked about. They become a lorn track, or even worse, they are removed from the scientific discussion. Co-occurrence analysis has the potential to help to detect such lesser-known or blinded out facts as much as it helps to reveal what is already known. The fast retrieval and visualization of cooccurrences thereby indicates streams of meaning that visualize historical traditions as well as historical facts in one context like from a bird's eye view.

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