

## Text Completions: Collaborating toward Mastery and Treebanked Commentaries of Complete Texts

Since fall 2011, I have collaborated with other researchers within the Perseids Project – a development of the Perseus Digital Library – on an effort to facilitate and capture the intellectual work of students and instructors within a new type of digital commentary: the syntactic treebank. Direct observation of the work of seventy-two students with texts ranging from the *Res Gestae* of Augustus to the *De Agri Cultura* of Cato, has shown that students from the third semester to graduate seminars are able to control the complexities of the texts at a level of control often years beyond their nominal experience – after an intensive engagement with the texts using the Perseids treebanking tools. The online treebanking GUI (graphical user interface) allows students and instructors to collaboratively engage an ancient text at a granular level, where every word and grammatical structure can be fully identified morphologically and syntactically, where each word, phrase, and clause has its specific modification and role within a sentence made explicit. The pedagogical efficiency of this methodology allows the visualization of multiple potential syntactic structures, without the costs of manually writing on and erasing a board; similarly, the instructional density of “teachable moments” is extraordinarily high, where students make fine distinctions in the morphosyntactic construction of every element of the author’s use of language. Within this larger effort, two primary pedagogical questions have remained central to my study of how digital annotation of ancient text (treebanking) can operate within a research-based model of Latin and Greek instruction: first, how the process of closely studying a text in class can be facilitated by the treebanking interface, and second, how the digital literacy thus developed can allow further independent research, resulting in the publication of edited treebanks as a form of digital commentary. I have discussed the

pedagogical benefits of directed student participation in this research in prior talks; in short, the iterative nature of the treebanking tool promotes the understanding of morphology and syntax as a single phenomenon. The ongoing publication of the treebanked AP Syllabus of Caesar and Vergil as well as other works from recent courses and my own work with the *Satires* of Juvenal ([https://perseids-project.github.io/harrington\\_trees/](https://perseids-project.github.io/harrington_trees/)) allows inquiry into the next phase in the larger project of fully analyzing extant Latin text: how can completed treebanked commentaries be integrated within this instructional model linking instruction and research.

In the context of a seminar on the history of Latin literature in the Fall 2016 semester, I will study how completed treebanked can be used to teach the evolution of Latin usage and stylistics. As the class progresses from Old Latin to Late Latin, in-class discussions will use the treebanking interface to work through difficult points of grammar and to illustrate the role of syntax in the evolving stylistics of literary Latin: e.g. by visualizing the parataxis and underspecification of clausal relationships in Cato, or by making the stylistic distance between Cicero and Sallust highly concrete. This directed study of the language of the various authors and periods will be reinforced by independent treebanking assignments from authors previously covered in lecture. Through this recursive work of closely analyzing the texts, students will quickly reach the level of fluency required to fully utilize the completed treebanks of sections of Caesar, Vergil, and Juvenal. (While much of the information of a treebanked sentence is manifest to even the most naïve user, the full implications of the relationships between clauses requires a more advanced grasp of clause functions: e.g. a given word might indicate that it is ablative, singular, feminine, and that it is functioning as an Ablative of Means modifying the verb to which it is connected, but being told that a clause is an Indirect Question in apposition to the noun *timorem* requires more extensive understanding from the user.)

The goal of this course is to maximize the amount of the Latin texts that can be read by the students with a comprehension of the texts' subtle morphosyntactic intricacies sufficient to allow a meaningful study of the style and content of the works. Unlike the passivity that might be encouraged by just being told what the morphology of a word might be, I will argue that the treebanked commentaries demand a level of subtle engagement with the texts much greater than simple translation, despite nominally having the answers to nearly any possible morphosyntactic question about the text. Reading a treebank is an immersive intellectual activity, that will be reinforced by having each student contribute to the ongoing research by independently treebanking additional sections of Caesar and Vergil, hastening the completion of the completed treebanks as worldwide resources for study and as crucial elements of the effort to enable a global study of Latin stylistics and usage using corpus linguistic methodologies.