Comparative Rates of Text Reuse in Classical Latin Hexameter Poetry

Traditional philological commentaries, as well as discursive studies of poets' use of prior tradition (e.g., Ware 2012, Hardie 2009, 1993), have exhaustively documented instances of the influence of Lucretius, Vergil, and Ovid on successive hexameter poets. The present study adds a quantitative perspective to research that has traditionally been pursued through qualitative methods. It seeks to determine how frequently distinctive phrases from one predecessor's text are reused compared to another's in the Latin hexameter tradition. This paper presents the results of a study using the freely available *Tesserae* website (tesserae.caset.buffalo.edu) to survey comparative rates of text reuse in 24 Latin hexameter works written from the 1<sup>st</sup> century BCE to the 6<sup>th</sup> century CE.

The *Tesserae* program automatically searches pairs of texts in a corpus of over 300 works of Latin literature in order to identify instances where short passages share two or more repeated lexemes (Coffee et al. 2013, 2012). *Tesserae* then provides an estimate of each phrase's significance by assigning it a score reflecting the rarity of the lexemes and their proximity. The study focuses on high-scoring phrase matches, reflecting the common-sense observation that phrases featuring rare words close together are more likely to be interpretively significant examples of conscious intertextual adaptation than phrases featuring common words spaced farther apart. Within the limited parameters of the *Tesserae* interface, the paper seeks to determine the rates at which earlier works provide verbal resources for the hexameter poems of the later first century CE through late antiquity. Such data can be used to answer questions such as whether, for example, Statius' *Thebaid* is more "Vergilian" in terms of its reuse of distinctive Vergilian phrases than another contemporary epic poem, Silius Italicus' *Punica*.

This paper presents a quantitative picture of the interactions between poets in the Latin hexameter tradition. The texts employed in the study include: Lucretius, *De Rerum Natura*; Vergil, *Eclogues, Georgics, Aeneid*; Horace, *Satires, Epistles, Ars Poetica*; Ovid, *Metamorphoses*; Manilius, *Astronomica*; Persius, *Satires*; Lucan, *Bellum Civile*; the *Ilias Latina*; Valerius Flaccus, *Argonautica*; Statius, *Thebaid, Achilleid*; Silius Italicus, *Punica*; Juvenal, *Satires*; Juvencus, *Historia Evangelica*; Ausonius, *Mosella*; Claudian, *De Raptu Proserpinae, De Quarto Consulatu Honorii Augusti, De Bello Gildonico, De Consolatu Stilichonis*; Corippus, *Johannis*. Provisional conclusions include the following:

- a) What Jockers 2013 calls the "author signal" is one of the strongest determinants of intensity of text reuse. In all 13 cases where a pair of texts was written by the same author, the reuse intensity was higher than average.
- b) What Jockers 2013 calls the "genre signal" is especially marked when examining text reuse between epic and satiric texts. Authors of satire do not often reuse the texts of epic, and vice versa. The quantitative results indicate a strong separation between the genres, related to satire's pedestrian vocabulary and everyday concerns, which contrast with the more elevated style and subject matter of epic.
- c) Later poets did not mine the vocabulary of Lucretius' *De Rerum Natura* as extensively as those of Vergil and Ovid. The only positive reuse values resulted from pairings with other didactic works, Vergil's *Georgics* and Manilius' *Astronomica*, and neither was significantly high. These low reuse values suggest the difference between the importance of Lucretius' poem as a *conceptual* resource (Hardie 2009) and its relative insignificance as a *verbal* resource.

- d) Although the intensity of text reuse of Vergil's works by the Flavian epics (excepting Silius' *Punica*) was higher than average, it was not as high as the intensity of reuse of any of Vergil's works by Ovid's *Metamorphoses*. Intertextual engagement with Vergil's texts by Valerius Flaccus and Statius is accordingly less intense than commonly assumed in the scholarship.
- e) Prior scholarship (e.g. Gruber 2013) has identified Ausonius' *Mosella* as primarily Vergilian in character, with several secondary influences, but has not heretofore been able to discuss the comparative rates of Ausonius' reuse of his predecessors' texts. The intensity of text reuse of Ovid's *Metamorphoses* by the *Mosella* was the highest of any two independently authored texts in the study, and second only to Vergil's reuse of the *Georgics* in the *Aeneid*.

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