

## Why Do Natural Science?: Goals and Purposes of Scientific Compendia in Imperial Rome

Seneca the Younger and Pliny the Elder are not often considered together in the context of their scientific works *Naturalis Historia* and *Quaestiones Naturales*, which is interesting given that they were roughly contemporaries. These texts, and others like them, would become highly influential in later centuries in the Romanized Western empire, becoming foundational to figures such as Isidore of Seville in his *Etymologiarum*. Their intentions for their scientific compendia are described in their respective prologues, but these have only been addressed together in terms of audience. Their intended purposes for what they wanted to achieve in terms of recording or advancing scientific knowledge, practice, and philosophies are worth addressing as they influence both the content and structures of the works themselves.

Seneca the Younger opens *Quaestiones Naturales* with a discussion on the distinctions between branches of philosophy (that which considers the human, and that which considers the divine), and uses that to address nature which can provide insight into both. Understanding something of both the human and divine is valuable according to Seneca as both types of knowledge are necessary to maintain full health. The use of intellect to expand one's boundaries is both desirable and exclusively human, and might be a pathway to get closer to the divine. The second preface (Book 3) continues the same general track, with an emphasis on age and using your mind to rise above mortal fears. Nature again aids in this endeavor. The final preface (4a) repeats the theme, but this time in reference to avoiding flattery and maintaining one's proper sense of self. The purpose of considering nature scientifically according to Seneca then is to aid with self-improvement and continuous personal growth.

Pliny the Elder opens his *Naturalis Historia* with an expected tribute to his patron and friend the Emperor Vespasian, although his emphasis on poetry (quoting Catullus and praising the emperor's poetic ability) is a bit unexpected. He also references Cicero, poetry first, while expressing both his humility and Imperial patriotism, another interesting choice given that Cicero was not often viewed as either of these things. His framing of the subject as a lowly and barbaric one that has not gotten proper study, not even by Greek encyclopedists, the invocation of Livy who wrote the nearest encyclopedic equivalent as a service to the country, an emphasis on the importance and style of a good title, and the concluding discussion of the purpose of the table of contents all suggest an emphasis of the general newness of the genre he was getting into. Scholarly work that overcomes challenges for the public good that gathers knowledge of the past and adds to it is Pliny's most direct goal for the scientific collection he is putting together.

The value of natural science is presented from opposing views, one personal and individual, and the other public and national. However, the shared qualities in content and general organization point to a common goal. In spite of the detailed table of contents in Pliny's work and the immediate jump into content with Seneca, the order of subjects is similar, beginning with astronomy, shifting to weather and natural phenomena, then geographical and geological ideas, etc. The general narrowing of observation and subject as the work progresses suggests a common goal in the end of connecting people to the world they inhabit from the grandest scale to the smallest. Certainly, Pliny's descent into the details of various classes of animals, plants, and elements (and their uses in many cases) is a different approach to Seneca's attention to how much humanity does not know about such details, but both make the same point that this knowledge is necessary and worth pursuing for various benefits to humanity.

## Bibliography

- Baldwin, Barry. "Stylistic Notes on the Elder Pliny's Preface." *Latomus*, vol. 64, no. 1, 2005, pp. 91–95.
- Currie, H. MacL. "The Younger Seneca's Style: Some Observations." *Bulletin of the Institute of Classical Studies*, no. 13, 1966, pp. 76–87.
- Hall, J. J. "Seneca as a Source for Earlier Thought (Especially Meteorology)." *The Classical Quarterly*, vol. 27, no. 2, 1977, pp. 409–36.
- Hine, Harry M. "Rome, the Cosmos, and the Emperor in Seneca's 'Natural Questions.'" *The Journal of Roman Studies*, vol. 96, 2006, pp. 42–72.
- Roby, Courtney Ann. "Seneca's Scientific Fictions: Models as Fictions in the Natural Questions." *The Journal of Roman Studies*, vol. 104, 2014, pp. 155–80.
- Roy Gibson, and Ruth Morello. *Pliny the Elder: Themes and Contexts*. Brill, 2011.
- Weiss, Harry B. "The Entomology of Pliny the Elder." *Journal of the New York Entomological Society*, vol. 34, no. 4, 1926, pp. 355–59.
- Williams, Gareth. "Interactions: Physics, Morality, and Narrative in Seneca *Natural Questions* 1." *Classical Philology*, vol. 100, no. 2, 2005, pp. 142–65.