

DNA Analysis and the Study of Medieval Parchment Books

The bibliographical data preserved in medieval parchment manuscripts – including evidence of how gatherings were sewn together to form codices, how parchment was ruled and prepared for writing, and how illuminators created and applied pigments and gold leaf – are considered essential to the understanding and furthering of textual studies and book history. Yet one category of such information, although invariably present in parchment manuscripts and proven accessible through scientific analysis, has not been utilized in any studies in these fields. This information is contained in the DNA preserved in the animal skins from which the parchment was made, and its potential to increase our knowledge of manuscript production and transmission, as well as to catalyze new paths of inquiry and fields of study, remains unrealized. For this reason, I have initiated a project to extract and analyze the DNA found in the leaves of medieval parchment codices. I propose to summarize briefly the results of my recent successful extraction of DNA from the leaves of a fifteenth-century parchment codex, which will be reported in the December 2009 issue of *Papers of the Bibliographical Society of America*. I will then outline the future plans and goals of my project, including realizing the potential of genetic analysis to redefine the study of parchment books in four areas: 1) offering a reliable means of dating and localizing both the physical materials used to construct books and, in some cases, the texts that they comprise; 2) illuminating parchment production practices and trade routes; 3) identifying and mapping herd populations; and 4) resolving puzzles and debates surrounding the composition and origins of books now disbound, mounted on singletons, and/or broken up and dispersed around the globe.