## Curated Data for Textual History: Review of *Catullus Online*

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**Abstract** This review assesses the many positive achievements of *Catullus Online* as an online edition combined with a virtually complete repertory of conjectures. It also notes the inevitable limits such a pioneering project faces and suggests features that future digital editions on improved platforms might aim to implement.

**Zusammenfassung** Diese Rezension bewertet die vielen positive Errungenschaften von *Catullus Online* als digitale Edition, die auch ein vollständiges Archiv der Konjekturen umfasst; die Rezension widmet sich den unvermeidbaren Grenzen eines solchen Pionierprojektes und macht Vorschläge für Verbesserungen bei zukünftigen Projekten dieser Art.

Keywords scholarly digital editions, manuscripts, visualisation

Dániel Kiss's article in this volume provides an excellent and accessible overview of the origin, aims, and development of the *Catullus Online* project. It is also important that he has provided candid and judicious remarks about various problematic issues: hosting on a non-institutional server, annual renewal of the domain name by an individual, the difficulties of interpreting aggregated usage data about users from Google Analytics, and the reluctance of a slow-moving academic culture to acknowledge fully that it is possible to have excellent advanced scholarship on the internet (and in open access rather than behind a for-profit paywall).

Digital projects are especially suitable, and indeed superior to fixed print publications, when it comes to accumulation of large amounts of scholarly data that continue to grow and that can be more easily accessible and better utilized and understood in a digital environment than by leafing through countless printed books. Eventually, perhaps, no one will any longer print on paper corpora of inscriptions or papyri, collations of manuscripts, repertories of conjectures, manuscript catalogues, bibliographies, and images of papyri, manuscripts, or artefacts.

It is a welcome thing to have a carefully curated edition of the poems of Catullus online. There are other texts of Catullus online, but the most scholarly ones require payment or subscription and the free ones are of uncertain quality, and never have an apparatus criticus. Kiss's edition is both the product of scholarly judgment and freely available to all. His versions of the poems are fairly traditional and conservative. When I sampled them, they did not shock or surprise one who has distant memories of reading the whole corpus and who has had only occasional experience, at wide intervals, of teaching the most famous shorter and longer poems to undergraduate Latin classes. Kiss correctly notes that this conservative approach was most convenient (I would say almost essential) to the other aims of the project: recording manuscript readings and conjectures keyed to the text. However welcome the edition itself is, the greatest scholarly gains of Catullus Online, in my view, come from the ready access to most of the conjectures ever made on Catullus and to the collations of variant spellings and variant readings collected in the unpublished papers of B. L. Ullman and supplemented by Kiss's own considerable efforts. Equally important is the bibliographic work devoted to identifying the sources of readings and conjectures, because many attributions in the apparatuses of editions have been passed along from edition to edition without reverification or bibliographic documentation, and thus can be quite difficult to track down (not to mention the possibility that an attribution may be inaccurate as to the person or the actual reading).

Another very promising achievement of this project relates to the images of manuscripts. Those imagining the ideal digital edition of the future usually picture the ability to click on a siglum and be offered a readable (that is, high-resolution) image of the manuscript (preferably already of the relevant page and not just of the cover or first page). To realize that goal is difficult because of traditional copyright and permissions policies and because the libraries that hold these precious cultural objects never have enough funding to do all the conservation, digitization, and innovative services that would be welcome. The goal is nevertheless coming closer to practicality as more libraries put more good images online. Eventually, the images will be hosted in their respective homes, but easily pointed to from other sites according to standard protocols (see now iiif.io for the International Image Interoperability Framework). In the interim, for Catullus Online Kiss has been able to get (cost-free) the permission of the Bibliothèque Nationale de France to place on the site excellent images of G (Parisinus latinus 14137) and T (Parisinus latinus 8071, containing Poem 62 only). This reflects the support of open access in French law. The third of the most important manuscripts, at the Bodleian Library (O = Canonicianus Class. Lat. 30) was subject to more traditional permission rules, and thus the license to display images was granted only for a fee and with a five-year time limit. For many scholarly projects such a fee would be prohibitive. The entire manuscript, however, is now freely viewable at Digital Bodleian.1 A third set of policies governed

Digital Bodleian: https://digital.bodleian.ox.ac.uk. The permalink for this codex is https:// digital.bodleian.ox.ac.uk/inquire/p/2 fe1d52b-f87b-4468-b6e1-2108cf74b3de.

the fourth major manuscript, at the Vatican Library (R = Ottobonianus latinus 1829), so no images of this are hosted at Catullus Online. But in this case, there is hope that excellent new images will eventually be available at DigiVatLib,2 where black-andwhite images from microfilm are already hosted as an interim measure.

Like many pioneering digital projects, the programming infrastructure of Catullus Online is sui generis, although the scholarly data can presumably be massaged or further tagged to be shown on another platform (as Kiss notes in his contribution here, two possible platforms are just coming into operation). Not having previous experience in programming, he did not have the leisure within the timeframe of the project to learn himself all that would be required. Fortunately, his project did have enough funding to contract out for the creation of a website tailored to his goals. The resulting site is handsome to look at, provides a number of choices of ways to view the material, and has both search and "go to" functions. It works fairly consistently on the three MacOS browsers I checked. Sometimes the "go to" function did not scroll to quite the right position (this happened inconsistently in different browsers on different occasions), and in Firefox the arrow icon for the "go to" action was not clickable (the action did work if one pressed the Enter or Return key after typing the desired line number). For the longer term, however, this standalone platform is a fragile solution, as Kiss himself has noted. In terms of the data he has collected, it is no surprise that, given such a full repertory of conjectures and readings, Kiss did not in this project choose to encode the variant readings with all the elaboration possible under the TEI guidelines. Such encoding would enable, on a sophisticated platform, the ability to swap variants in and out of the text of a poem. It would also be desirable to have the specific bibliographic references accessible by clicking a name in the apparatus. The overhead for the editor in supporting such functionality, however, is daunting. Possibly a less laborintensive route to such tagging, as well as a platform for such manipulation by the user, is now in the offing.3

As useful as this collection of data is to an expert in textual tradition, the long and dense apparatus that applies to some lines of the corpus will be intimidating to those who are less experienced. If the data were to be revised in any major way in the future, it would be worth considering classifying the different readings and corrections into one class of the more banal items and another class of major corruptions or drastic interventions. Latin manuscripts of classical poetry are full of readings that are orthographic/phonetic (y/i, -is/-es, quom/cum, michi/mihi, presence or absence of assimilation of consonants at the end of prepositional prefixes,

<sup>2</sup> DigiVatLib: https://digi.vatlib.it. This codex is at https://digi.vatlib.it/view/MSS\_Ott. lat.1829, and it already has an IIIF URI.

<sup>3</sup> See the blog/review (posted 04.12.2017) of the Library of Digital Latin Texts by Richard Tarrant and myself at https://classicalstudies.org/node/27116.

and the like), often with great inconsistency within a single witness. Editors make their best estimate of the proper "original" spelling and apply their choices with consistency (or intend to do so, though in extensive texts one can sometimes find a detail that the editor neglected). It is important for editors and the users of editions, as well as linguists, grammarians, and palaeographers, to know about such variations, though in most editions they are rightly excluded from the apparatus criticus. Another category of error that can be judged banal includes the frequent confusions of sequences like "iu", "ui", "in", "in", "im", "un", and the like because of the style of the scripts through which the text has passed. One day, with the greater flexibility and capacity of digital editions, it will perhaps be common to classify errors in tagging in a way that will be very enlightening to beginners and casual users and allow for variable display of the apparatus.

Digital presentation also gives an opportunity to rethink the presentation of the apparatus material. There are good reasons for the economy and tight layout of a printed apparatus, but the online display could be aimed more at legibility. The style of the apparatus of Catullus Online is to have every element of the apparatus in the same bold (or bold-looking) font. The Latin words are in upright type and the sigla and editorial remarks, abbreviations, and bibliographic references are in italics. Lemmata belonging to the same line are divided by a vertical bar, and variations on the same lemma are divided by a colon. The amount of space on either side of the vertical bar or colon varies slightly because the paragraph style is justified rather than flush left, and forcing extra space around the vertical bar, at least, would make it easier to find one's place in one of the longer paragraphs. The display with full apparatus spaces out the lines of the text variably to accommodate the depth of the cell containing the apparatus for that line. This is surely the right choice, but once the spacing of the Latin verses has been made subordinate like that, one could also consider allowing even more space for the layout of the apparatus and using the space to start each lemma, or even each variant, on a new line. Note that for Catullus 25.5, 29.20, and 107.7-8 there is already an alternative layout, since these passages (alone) have the + icon giving access to a popup window in which the different readings are ranged on separate lines with extra space between them. A similar treatment would render some of the denser apparatus paragraphs easier to digest.

Overall, Catullus Online is a fine achievement as a scholarly contribution to the detailed study of the text of Catullus. The digital elements have been well handled for a pioneering project with an *équipe* of one scholar and a time-limited grant. Inevitably, early digital products leave the users imagining ever more sophisticated operations and interfaces, and eager to see how future developments will change our access to the scholarship we value.