The Digital Humanist’s Renaissance: 
*verba volant, scripta manent, digita sunt*

Cynthia White  
University of Arizona  
Tucson, Arizona


**ABSTRACT**

The publication of the new *Standards for Classical Language Learning* appears just as the first fruits of the grand digitization project of the *Biblioteca Apostolica Vaticana* are becoming accessible, along with so many other manuscript digitization projects. The list of available manuscripts comprises a unique repository of instructional tools and potential career opportunities. Free access and the search ability of such a wide range and volume of manuscripts informed by the five goal areas of the new Standards will result in new approaches to information literacy, paleography and textual criticism. Conundrums in manuscripts that a handful of scholars (often working in isolation) in each generation might read and advance are now able to be determined with mechanical certainty, and with a celerity that would have been unthinkable just a few decades ago. This rediscovery of antiquity in Greek and Latin digitized texts, many from the Renaissance, presents classicists with a thrilling second Renaissance, an opportunity to reinvigorate manuscript study among undergraduates, Latin secondary teachers in training, graduate students, and on-line scholarly communities. My paper is an example of a paleography project that compares digitized manuscripts and applies the new Standards in editing a Medieval Latin text of the hedgehog (Fig. 1) in a thirteenth-century bestiary.
**Keywords**

philology, bestiary, emendation, paleography, apparatus criticus, recension, sigla

This essay situates its approach in implementing the newly revised *Standards for Classical Language Learning* within a new world: a world where documents are shared widely and move from place to place with a formerly unimaginable celerity and standardization; a world where profound technological revolution has engendered a *rinascimento* of interconnected engagement and creativity; a world that has sparked the transition from privately owned physical artifacts to “texts” publicly shared, exchanged, and reproduced. Intensely visual, these new “texts” circulate beyond the static page. This world, in fact, marks the most recent development among the profound technological consequences of Gutenberg’s fifteenth-century printing press—Renaissance Humanism, the Reformation, and the Enlightenment, to name only a few. The ancient proverb (sometimes attributed to a Roman senator Caius Titus), *verba volant, scripta manent* (‘[spoken] words fly, written words remain’), the first part of this essay’s title, aptly captures the dynamism of a long unfolding technology (De-Mauri 525). How the newly revised *Standards for Classical Language Learning* can use this technology to engage university students in applying the philological principles of paleography to their reading of a medieval Latin bestiary, the topic of this study, is only one demonstration of their application.

From at least the thirteenth century Petrarch (1304-74) and his fellow proto-humanists were drinking *ad fontes*, that is, from among the undiluted texts of classical authors (Zak). With the advent of printing and the prospects of hyper-extended access, a new science of examining classical texts was inevitable for these scholars. Establishing the text for publication by editing, interpreting, and commenting upon various manuscripts and codices transformed philology, something Calvert Watkins, in his essay entitled “What Is Philology?” has defined as the “art of reading slowly” (Watkins 25).

Today the Vatican’s grand digitization project *Biblioteca Apostolica Vaticana* and others like it (e.g., *The Medieval Bestiary*), have ushered in a new renaissance of classical texts and challenged all classicists to refresh their commitment to the Renaissance science of philology. The Vatican project alone will realize the digitization of some 80,000 manuscripts in the Vatican Library, about 40 million pages, at a cost of 50 million euros. The title of the Vatican project (and this essay) appends an essential component to the ancient proverb above: *verba volant, scripta manent, digita*
sunt: ‘[spoken] words fly, written words remain,’ proprio grazie, as their website explains, precisely because ‘they are digitized.’ The modified proverb epitomizes the connection between the academic discipline of philology as practiced by Renaissance humanists in response to the printing press and by contemporary classicists in response to the digitization of ancient manuscripts. What these two worlds have in common is the need to be instructed in, and to practice, information literacy. The list of available Vatican manuscripts together with other similarly ambitious manuscript digitization projects have resulted in a unique and unprecedentedly large repository of instructional tools and potential career opportunities. The implications for classical scholarship and instruction are copious, as are the implications for implementing the new Standards for Classical Language Learning. These treasure troves of new access, however, should be approached with skills that enable reliable evaluation, organization, and preservation of the classical source texts.

Caught up in the swell of these grand (and still modest) contemporary manuscript projects, classicists become digital humanists, practicing philologists of the studia humanitatis, powered by the lingua franca of scripta quae digita sunt. As it was for our Renaissance humanist predecessors, editing is our principal activity. Since it furnishes an ability to discern critically amid a superabundance of information, editing is at the essential core of information literacy.

Access to grand repositories of texts will assuredly reinvigorate the study of paleography and textual criticism. Greek and Latin teachers and students will have open access to read, interpret, and respond in on-line scholarly communities that are simultaneously local, intramural, and global. In using digitized manuscript collections for instruction, the implementation of the new Standards for Classical Language Learning is both seamless and beneficial. These texts, whether previously unpublished or newly available on line, oblige readers to engage with multiple aspects of each of the five “C” goals in the Standards for Classical Language Learning in order to 1) read critically, analyze, recite and rewrite (Communication); 2) realize cultural differences and perspectives by comparing the texts online both among digitized versions and with printed sources (Cultures); 3) locate the texts in the wider cultural, historical, and linguistic heritage of antiquity and its reception (Connections); 4) edit the texts to hone language skills and to appreciate meaning apart from, and in relation to, the culture in which they were produced (Comparisons); and 5) access larger communities of classicists, scholars, bloggers, et alios to join collaboratively in producing on-line or print editions (Communities). Whether
the new editions are for instruction, personal enrichment, or the advancement of scholarship, they also promote a wider accessibility to antiquity and our discipline. If these implementations of the Standards for Classical Language Learning are easy to map and even perhaps practiced instinctively, they are no less philologically rigorous for that.

The remainder of my essay will highlight aspects of the Standards for Classical Language Learning in a model academic experience designed for graduate students who are learning to use digitized medieval manuscripts. Using classical and medieval sources, we will attempt to assemble, examine, and digitally edit a sampling of the wide swath of the accessible texts pertaining to one of the most irresistible creatures in the Medieval Latin bestiary, the hedgehog. The hedgehog story as it appears in the thirteenth-century Northumberland Bestiary (Fig. 2) will provide a point of comparison, since there is a critical edition, translation, and commentary available (White). Though many bestiaries consider the hedgehog (herinacius) and the porcupine (ericius) to be the same animal, the Northumberland Bestiary considers them separately. Below in gothic hand is folio 10, which contains entries on both the herinacius and the ericius. The text in Roman font from the above edition follows.


Tu, homo Dei, custodi diligenter vineam tuam et omnes fructus eius spirituales, ne te occupet istius secoli sollicitudo, et temporalium rerum bonorum voluptas, et tunc spinosus diabolus, dispersens omnes fructus tuos spirituales, figat illos in spinis suis et faciat te escam bestiis, et fiat anima tua nuda, vacua, et inanis, sicut pampinus sine fructu. Et post hec gratis clamabis dicens, Vineam meam non custodivi, sicut in Canticis Canticorum scriptura testatur. Congruenter igitur Phisiologus naturas animalium contuit; contexuit intelligencie spiritualium scripturarum.
Fig. 2. *The Northumberland Bestiary* (England, 13th c) Getty MS 100, fol. 10.
Ericius - Ericius animal est spinosum quod exinde dicitur nominatum, eo quod subrigit se quando spinis clauditur, quibus ubique protectus est contra insidias omnes. Nam statim ut aliquid presens senserit, primum se subrigit ac sic in globum conversus in sua se arma recolligit. Cuius prudentia quidem est talis: cum abscederit uvam de vite, volutat se super eam, et fixos in spinis racemos portat natis suis.

Considering first the manuscript, on lines 16-17 of folio 10 (Fig. 2) we read subigit (‘bring under’) which is meaningless in this context; just below that, in line 19, we read subrigit (‘it stiffens itself’). Following the steps outlined in David Schaps’ “Editing Classical Texts”—recensio, examinatio, emendatio—we can use online repositories to access and compare related texts (Schaps). As classical philologists and medieval compilers, students will combine their expertise as paleographers and editors in organizing (recensio), examining (examinatio), revising, rejecting, interpreting, analyzing, correcting, and connecting (emendatio) a sample of these available texts. Our aim is to engage the new Standards for Classical Language Learning and, where they overlap, related Comprehensible Input (CI) strategies (John Piazza has collected several links to CI and Latin instruction sites) to produce a critically edited text that is linguistically sound and coherent in its message, despite the diversity of sources (Patrick). The graduate students for whom the experience is designed will advance their training in traditional philology, they will incorporate the newly available arcana of medieval monastic productions into modern instructional resources that are comprehensible and compelling, and they will put into play the nexus of philological principles that undergird the new Standards for Classical Language Learning.

To organize our recension, the first step in Schaps’ chapter, we have many sources upon which to draw in order to compare the Latin text of the hedgehog from its ancient, early Christian, and medieval sources: the elder Pliny’s Historia naturalis (77 C.E.) (Pliny 8.125), the early Christian Greek Physiologus translated into Latin by at least the fourth century (Physiologus Latinus), the patristic Hexaemeron of Ambrose (339-97 C.E.) (Ambrose 6.4.20), and the entry on the herinaceus in the Etymologiae of Isidore of Seville (c. 560-636) (Isidore De animalibus 12.3.7). In his De naturis rerum, the Carolingian ecclesiast Hrabanus Maurus (776-856) wrote about the hedgehog, appropriating material from Isidore’s De animalibus and introducing his own Christian allegorical interpretations (Hrabanus Maurus 7.8 and 8.2). Several manuscripts and texts contemporaneous with the Northumberland
Bestiary, which was produced in the high point of the bestiary’s popularity, include the anonymous De bestiis et aliis rebus (De bestii 2.4) and a widely-scattered group of medieval Latin bestiaries, many without editions or facsimiles, that are not yet available on line. Limiting ourselves to those on line, we have access to the classical text of Pliny, and the ecclesiastic texts of Ambrose and Isidore; the Latin Physiologus; the Aberdeen Bestiary, the first grand bestiary digitization project; several bestiaries from the British Library collection, and, last, the thirteenth-century Northumberland Bestiary, the text that we are editing. The first step, recensio, aligns most closely with Standard V.1 ("Learners use classical languages both within and beyond the classroom to interact and collaborate in their community and the globalized world"), III.1 ("Learners build, reinforce, and expand knowledge of other disciplines while using the language to develop critical thinking and to solve problems creatively"), and III.2 ("Learners access and evaluate information and diverse perspectives that are available through the languages and cultures"). Students begin by identifying community connections and collaborations which consist, in this case, of a wide range of websites, blogs, and images that have been compiled by institutions or individuals, and these include the extensive library digitization projects. Sites such as the Digital Vatican, the British Library, independent scholar David Badke’s rich bestiary website, librarian/archivist Kelly Fitzpatrick’s Open Marginalis, and the British Library Medieval Manuscripts Blog fit into this group. There are also small-scale productions compiled by independent scholars, hobbyists, and, in our case, animal lovers. The Medieval Animal Data-Network and the Bestiaria Latina Blog compile images and adapt Latin texts from a wide range of sources; “Ancient, Antique, & Vintage Hedgehogs” is less scholarly but offers a delightful and capacious compilation of images, exhaustive enough for the most zealous of hedgehog enthusiasts. Once the texts are collected, students can begin to examine them, a scholarly activity that closely aligns with Standard IV.1 ("Learners use classical languages to investigate, explain, reflect on the nature of language through comparisons…") and also I.1 ("Learners understand, interpret and analyze what is read…").

The beginning of Pliny’s first-century account of the hedgehog details the hedgehogs’ preparations for winter and their strategy for avoiding being captured. To ensure that they have food for winter, they roll on fallen apples to stick them to their spines, then taking one or more in their mouths they carry the load to hollow trees. According to Pliny, hedgehogs can also predict a change in wind direction from north to south when they return to their burrow. And when they sense that they
are hunted, they roll up into a ball, from mouth to feet, on their downy interior, so that it is not possible to pick them up without touching their quills. Although the bestiary’s story of their adroit means of carrying food to their young is taking shape, Pliny does not use the word *subrigit* in his account.

Pliny, *Historia naturalis* 8.lvi (133) (Thayer)

Praeparant hiemi et irenacei cibos ac volutati supra iacentia poma adfixa spinis, unum amplius tenentes ore, portant in cavas arbores. iidem mutationem aquilonis in austrum condentes se in cubile praesagiant. ubi vero sensere venantem, contracto ore pedibusque ac parte omni inferiore, qua raram et innocuam habent lanuginem, convolvuntur in formam pilae, ne quid conprehendi possit praeter aculeos.

Below is the version of the hedgehog story in the c. second-century Latin *Physiologus B*, a principal primary source for the twelfth-century bestiary. Here the version in the Northumberland is clearly anticipated. (We might also note the word *temporahum*, highlighted below. This is a modern renaissance humanist’s challenge: to determine whether this is an error in the text or a corruption of transmission due to modern technology. In this instance, it is the latter!)


XIII. Herinacius - *Physiologus dicit quoniam herinacius habet porcelli lactentis. Hic de foris totus est spinosus; sed tempore autem unidemiarum ingreditur in uineam, et ubi uiderit uuam bonam, ascendit super uitem et excacinat uuam illam, ita ut cadant omnes acini in terram; tum demum descendens uoluit se super illos, ita ut omnes acini figantur in spinis eius; et sic portat escam filiis suis.*

*Tu vero, homo dei, custodi diligenter uineam tuam et omnes fructus eius spiritales, ne te occupet istius saeculi sollicitudo et temporahum bonorum uoluptas; et tue spinosus diabolus dispersens omnes spiritales fructus tuos, figat illos in spinis suis et faciat te escam bestiiis, et fiat anima tua nuda, uacua, et inanis, sicut pampinus sine fructu. Et post haec gratis clamabis dicens: Vineam meam non custodiui, sicut in Canticis Canticorum scriptura testatur. Congrue igitur Physiologus naturas animalium contulit et contextu intelligentiae spiritalium scripturarum.*

In this version, we read that the hedgehog looks a bit like a porcupine, all spiny (*spinosus*), and that it enters the vineyard during the grape-gathering; when
it finds a good grape, it pulls that grape from the vine, causing many others to fall to the ground; then it climbs down and rolls itself on them so that all the grapes are attached to its quills, and, in this way, it carries food to its young (Fig. 3). A didactic analogy follows comparing the porcupine to the spiny devil who gathers spiritual fruits as food for beasts. The Latin *Physiologus* does not include the word *subrigit*.

Fig. 3. *Bodleian Library*, MS. Douce 151 f. 30.

In the discussion of the hedgehog in Ambrose’s *Hexaemeron*, students enter into a kind of secondary experience that aligns with *Standard* I.2 (“Learners interact and negotiate meaning in spoken, signed, or written conversations in Latin or Greek to share information, reactions, feelings, and opinions”), where, as they read and compare the *recensiones* they have collected, they become interlocutors in the conversations among scribes and textual critics. In addition to reading the text, they examine the variants we see in the *apparatus criticus* as they compose a translation. In Ambrose’s version, the transmission of the very name of the hedgehog has several variants in different manuscripts. Reading and comparing this text against that in the *Northumberland Bestiary* and also analyzing the variants in the *apparatus criticus* require students to engage with *Standard* IV.1 (“Learners use classical languages to investigate, explain, and reflect on the nature of language through comparisons of the language studies and their own”).
Ambrose, Hexaemeron 6.4.20 (C. Schenkl, CSEL 32 [1897]): Below is the text of
the echinus/hericius from Schenkl’s on-line version, with the apparatus criticus
detailing textual variations in other manuscripts and editions, just below the text.
These are found on page 216.

\[
\begin{align*}
\text{echinus iste terrenus, quem uulgo iricium uocant, si} & \quad 6 \\
\text{quid insidiarum praesenserit, spinis suis clauditur atque in} & \quad 7 \\
\text{sua se arma colligit, ut quicumque eum contingendum putat} & \quad 8 \\
\text{uerit ulneretur. Idemque echinus futuri prouidens geminus} & \quad 9 \\
\text{sibi respirandi uias munit, ut quando boream flaturum colle} & \quad 10 \\
\text{gerit, septenttrionalem obstruat, quando noto cognuuerit de} & \quad 11 \\
\text{tergi aeris nubila, ad septenttrionalem se conferat, ut flatus} & \quad 12 \\
\text{declinet obuios et e regione nocturos.} & \quad 13
\end{align*}
\]

6 iritium C ericium N’B hericium S 7 quis C et (quid m2) GP claditur C 8 se arma
N’ arma se MSB, se om. II colligitur C (i. pr. in ras.) GP colliguntur V; cf. Uerg.
Aen. X 412 [seque in sua colligit arma] et de bell. Iud. III 1, 44 9 prouidens C (en
in ras.); prouides, non prouidus habuisse uidetur 4 septenttrionalem . . . nubila ad
om. C nota GP notho B et m2 UU’ 13 obuios C (o alt. ex u m3) 6 nociturus corr.
m3 C m2 GP.

In his edition, Schenkle consulted the manuscripts and editions listed below,
which he further annotated in the paragraph that follows the sigla, both on page 2
of Schenkl’s online version. These are the sources for the notes in the apparatus
criticus (above).

\[
\begin{align*}
A & = \text{libri Aurelianensis (192 f. 7-14 = I 29 – II 3) fragmenta saec. VII} \\
C & = \text{Cantabrigiensis collegii corporis Christi 193 saec. VIII} \\
G & = \text{Parisiacus 12135 (olim liber S. Germani) saec. VIII} \\
P & = \text{Parisiacus 3984 (olim Colbertinus 1718) saec. VIII, initio mutilus;} \\
\text{incipit p. 14 u. 19} \\
V & = \text{Ueronensis XXVII 25 saec. X} \\
\text{II} & = \text{CGPV} \\
U & = \text{Augiensis CXXV, nunc Caroliruhensis saec. VIII} \\
U’ & = \text{Augiensis CCXVI, nunc Caroliruhensis saec. X} \\
M’ & = \text{Monacensis 6258 (olim Frisingensis 58) saec. X} \\
N’ & = \text{UU’M’} \\
M & = \text{Monacensis 3728 (Aug. eccl. 28) saec. X} \\
S & = \text{Senensis F V 8 saec. XI ineuntis}
\end{align*}
\]
Teaching Classical Languages

Volume 9, Issue 1

White

Librorum A et C integram proposui scripturam, ex ceteris selectam. hic illic com-
memoravi scripturas Atrebatensis 346 saec. XI (Atr.), Bruxellensis 1782/4 saec. XI ineuntis (Brux.), Cantabrigiensis collegii corporis Christi O 3, 35 saec. XI (Cant.), Carnutensis 63 saec. XI ineuntis (Carn.), Parisiaci 11624 saec. XI, olim Diuionensis s. Benigni (Diu.), Parisiaci 1719 saec. XI, olim Telleriani (Tell.), Trecensis 550 saec. XI ineuntis (Trec.), denique Uindobonensis 779 sec. XII (Uind.).

This version is the most complicated for students working with manuscripts for the first time, as it includes textual variants and the sigla or symbols of the manuscripts used, so that students will begin to see the range of collations that produce an edition. The story of the hedgehog in this version is similar to the previous versions in that the hedgehog rolls itself into a ball enclosed within its quills to protect itself when threatened, and in this version, too, the word *subrigit* is missing. But this version also adds a new trait: hedgehogs have a double respiratory tract so that they can deflect harmful winds.

The second step in the editing process according to Schaps is the *examina-
tio* of the manuscripts and editions. This aligns with *Standard IV.2* (“Learners use classical languages to investigate, explain, and reflect upon the concept of culture through comparisons of the cultures studied and their own”). Comparing different elements of the story of the hedgehog—pseudo-scientific, mythical, didactic—students will also note textual variants. Here, in Isidore’s account, the word *subrigit* appears twice with variants in several manuscripts, as reported in J. André’s edition (just below), and the story of the hedgehogs’ clever means of gathering food for their young is fully developed. Students now begin to compare the ideas in the story and ask questions about the different views of science and nature in the medieval and modern worlds, and ask how the classical encyclopedic text of Pliny or the religious allegory in the *Physiologus* are adapted in subsequent versions.
Before telling the story of how the hedgehog feeds its young, Isidore writes that the hedgehog is an animal covered in quills, and it takes its name from this fact, because ‘it stiffens itself’ (subrigit) when it is enclosed in its own quills and it is thus protected against dangers. “Right away when it senses danger, first ‘it stiffens itself’ (subrigit), and rolling itself into a ball it gathers itself into its own armor. There is a cleverness to this: for when it has plucked a grape from the vine, supine it rolls itself on it and takes it to its young” (Fig. 4).

The twelfth-century Aberdeen Bestiary (f. 24) repeats elements of the previous examples, including the word subrigit twice (lines 17 and 23).

Ericius animal ex spinis coopertum. Quod exinde dicitur nominatum, eo quod subrigit se quando spinis suis clauditur; quibus undique protectus est contra insidias. Nam statim ut aliquid presenserit, primum se subrigit, atque in globum conversus in sua se arma recolligit. Huius prudentia quaedam est; nam dum absciderit uvam de vite, supinus sese volutat super eam, et sic eam exhibet natis suis. Dicitur etiam echinus.

Fig. 4. British Library Royal 12 F XIII f. 45
In this version, which is very similar to Isidore’s, the hedgehog is named for its quills (ex spinis) because it ‘stiffens itself’ (subrigit) when enclosed in its quills, to protect itself against threats. When it senses danger, first ‘it stiffens’ (subrigit), and rolling itself into a ball it gathers itself into its own armor. The characteristic behavior of taking fruit from the vine and rolling on it so that it becomes attached to its quills and carrying it back to its den to feed its young is also repeated (Fig. 5).

Two twelfth-century bestiary manuscripts from the British Library,—11283 (folio 15v) and 3244 (folios 49v–50)—contain the same text where subrigit appears twice. A third bestiary in the British Library, Harley MS 4751 (folio 31v) also aligns with Standard III.1 (“Learners build, reinforce, and expand their knowledge of other
disciplines while using Latin or Greek to develop critical thinking and to solve problems creatively”): for this manuscript, the British Library makes available only the images, so students will have to access the text through other online channels.

The third activity according to Schaps, *emendatio*, aligns with **Standard V.2** (“Learners set goals and reflect on their progress in using classical languages for enjoyment, enrichment, and advancement”). The students set as their goal to produce a textually sound reading and to use that text for enjoyment, enrichment and advancement, whether in their own scholarship, for pleasure, or as an instructional tool. If our goal has been to engage the new *Standards for Classical Language Learning* in a philological experience using online manuscript repositories in order to discover and produce a critically edited text of the hedgehog in the *Northumberland Bestiary*, we have been successful. Having discovered and compared ancient, patristic, and medieval readings against digitized medieval manuscripts, students may confidently correct *subig(t)* to *subrigit*. In this philological experience students engage all five components of the new *Standards for Classical Language Learning*. In studying the science, myth, morality, and Latinity of the hedgehog as its story evolved through the centuries, they use philology in creative cultural comparisons to connect an earlier community of Latinists to their ever-expanding global community of Latinists.

In closing, **Standard I.3** (“Learners present information, concepts, and ideas to narrate, describe, inform, explain, and persuade, on a variety of topics in Latin or Greek using appropriate media and adapting to various audiences of listeners, readers, or viewers”) exceptionally aligns with this sweet and clever video example (Fig. 6) of the “presentation of information” on the singular appeal of the medieval bestiary’s hedgehog. The Latin text and the images are drawn from the vast new repository of digitized medieval Latin bestiary manuscripts.

*Fig. 6. De Herinacio. On the Hedgehog. Dolls and animation by Ala Nunu Leszyńska, Vimeo, 2015.*
WORKS CITED

The Aberdeen Bestiary. “Manuscript 24.”


Central European University. *Medieval Animal Data-Network*.


Getty Museum. *Northumberland Bestiary*.

Gibbs, Laura. *Bestiaria Latina Blog*.


Piazza, John. “Comprehensible Input.”


Thayer, William B. LacusCurtius. Etymologiarum sive Originum Isidori Hispalensis. Edited by W. M. Lindsay, 1911.


