The List of *Notae* in the *Liber Glossarum**

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In both Antiquity and the early Middle Ages, a special class of marginal symbols, known in Latin as notae, were used to annotate the manuscript text. The shapes of these marginal symbols, their names, and functions were described in technical texts that had the form of lists of signs, the sign treatises. Many early medieval manuscripts contain sign treatises of either ancient or early medieval origin. One such treatise was incorporated into the Liber Glossarum, a large glossographic collection that survives in a number of Carolingian manuscripts. This sign list is, like many other sign treatises, a compilation of older sources. While it is difficult to analyze the other sign treatises, the direct sources of which are lost, we possess the main source of the sign list in the Liber Glossarum, namely the Etymologiae of Isidore of Seville. A comparison of the sign list in the Liber Glossarum with the Etymologiae allows us to analyze the processes used by the compilers of the former rather than just their sources. This comparison shines light also on how other sign treatises preserved in early medieval manuscripts may have come into being. Moreover, the sign list in the Liber Glossarum provides evidence that the oldest core of this glossary came into being on the Iberian peninsula and includes material that had been used by Isidore of Seville for the Etymologiae, as suggested by Anne Grondeux.

Dans l'Antiquité et au haut Moyen Âge, on utilise une catégorie de signes marginaux appelés en latin *notae* pour annoter les manuscrits. Leur forme, leur nom et leur fonction sont décrits dans des traités spécifiques, sous forme de listes. L'un de ces traités a été incorporé dans le *Liber Glossarum*, vaste compilation de gloses qui subsiste dans plusieurs manuscrits carolingiens. Cette liste de signes est, comme souvent, une compilation de sources antérieures, mais alors qu'il est difficile d'étudier la plupart des autres traités, car on en a perdu la source, on dispose encore de celle du *Liber Glossarum*: les *Étymologies* d'Isidore de Séville. Une compairison de les deux listes de signes nous permet de saisir sur le vif les pratiques des compilateurs qui ont présidé à la formation du *Liber glossarum*. Cette comparaison éclaire aussi, par analogie, la genèse d'autres traités altimédiévaux. Par ailleurs, la liste du *Liber glossarum* semble montrer que le noyau primitif du glossaire a vu le jour dans la péninsule ibérique et contient des textes utilisés, comme l'avait suggéré Anne Grondeux, par Isidore pour ses *Étymologies*.

This paper is concerned with a previously unedited early medieval list of signs, such as were used in the course of the *adnotatio* of manuscripts, a process mentioned by ancient and medieval writers side by side with *emendatio* and *distinctio*. Just as it was

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¹ See Suetonius, *De grammaticis* 24: "M. Valerius Probus ... multaque exemplaria contracta emendare ac distinguere et annotare curavit." Also Marcus Cornelius Fronto, *Epistulae ad amicos* 2.2: "Ciceronianos emendatos et distinctos habebis; adnotatos a me leges ipse." The three operations –

customary for ancient and medieval manuscript users to check their copy against the exemplar for errors, to re-check it against other manuscripts, or even to scan for mistakes based on their knowledge of Latin, and to add punctuation to aid the reading and interpretation of the text, they might have added certain signs in the margins of the manuscripts for a variety of purposes.² These signs are usually called "critical signs" in modern scholarly literature, suggesting that the primary goal of the adnotatio is textual criticism, but in reality they serve a much wider array of purposes.³ Marginal signs added to the Orationes of Gregory of Nazianzus in the sixth century and preserved in one of the manuscript family of this text illustrate this point. Two of these signs – the ώραῖον (&, Gr. "well-put, good point") and the σημείωσαι (&, Gr. mid. imperat. of "to note") – mark passages which were interesting for their language and their style, thus facilitating their use in the classroom. Three other signs ἀστερίσκος (※, Gr. "star-shaped"), ἡλιακόν (૮, Gr. "solar, sun-like"), and ὀβελός (÷, Gr. "javelin, spear point") - mark Gregory's doctrinal points and the position of his adversaries, and thus pay attention to the content of the Orationes rather than to their language and style. A sixth sign, δ ιπλῆ (\gt , Gr. "double"), served to mark scriptural quotations and in some copies, another sign was employed to indicate corrupt passages that could not be resolved by conjecture.⁵ Thus, of the seven signs inserted into this work of Gregory of Nazianzus, only one may be seen as having to do with the textual criticism. For this reason, I prefer to use a more neutral term for these signs

emendatio, distinctio, and adnotatio – are, however, most commonly mentioned in manuscript subscriptions, for example in one made by a certain *Cyprianus famulus* which can be found in St. Gallen, Stiftsbibliothek, MS 626, p. 312: "Correxi ut valui distinguendo que notavi." The manuscript is digitized at http://www.e-codices.unifr.ch/en/csg/0626/312/medium.

- ² The most recent publication dealing with these aspects of manuscript production, focusing on Late Antiquity, is Alan Cameron, *The Last Pagans of Rome* (Oxford, 2010), especially pp. 421–97.
- ³ A thorough discussion of various types of marginal signs is provided in Adolfo Tura, "Essai sur les 'marginalia' en tant que pratique et documents," in *Scientia in margine: études sur les Marginalia dans les manuscrits scientifiques du Moyen Âge à la Renaissance*, ed. D. Jacquart and C. Burnett, Hautes études médiévales et modernes 88 (Geneva, 2005), pp. 261–387. See also my dissertation, Eva Steinová, "Notam superponere studui: the Use of Technical Signs in the early Middle Ages" (Ph.D. diss., Utrecht University, 2016); and Markus Stein, "Kritische Zeichen," in *Reallexikon für Antike und Christentum* XXII, ed. Georg Schöllgen et al. (Stuttgart, 2008), cols. 133–63.
- ⁴ The adnotatio of Gregory of Nazianzus is discussed in Charles Astruc, "Remarques sur les signes marginaux de certains manuscrits de S. Grégoire de Nazianze," *Analecta Bollandiana* 92 (1974), 289–95.
- ⁵ Perhaps the most famous manuscript of the *Orationes* containing this *apparatus* is Paris, Bibliothèque nationale de France, MS gr. 510 (879–883, Constantinople), digitized at http://gallica.bnf.fr/ark:/12148/btv1b84522082/f63.item. On fol. 25r, the link to which I provide here, one can see three of the signs in question the star-shaped ἀστερίσκος in the outer, and the ώραῖον and σημείωσαι in the inner margin.

and I will call them "technical signs" in this paper. In most general terms, technical signs may be defined as self-standing atextual graphic symbols entered into the "margins" of the writing medium in order to communicate meta-information about it or to create a framework for its use.⁶

Today, this practice might strike us as alien and cumbersome, since we are no longer familiar with the system of signs devised by the ancient and medieval annotators and we ourselves handle our books differently. Yet, in Antiquity as well as in the early medieval period, *adnotatio* was part of the package of practices which scribes acquired in the course of their training and with which they were well-acquainted. This is confirmed by the testimony of ancient and medieval writers who occasionally refer to technical signs in their writings. However, two far more important sources for understanding this practice exist: manuscripts containing technical signs as a layer of marginal annotation, an important evidence for the *praxis* (although notoriously difficult to interpret), and technical literature concerned with enumeration and description of different signs.

Compilation of these technical texts concerned with marginal signs, which I call "sign treatises" in this article, is attested from as early as the first century AD.9 Unfortunately, only a single fragment survives of these ancient $K\alpha\tau\dot{\alpha}\tau\ddot{\alpha}\nu$ σημείων

⁶ I am, thus, not considering *signes de renvoi* which join the main text with glosses or commentary in the margin, nor omission signs which perform a similar function with respect to *lacunae* in the text. Although these two other types of signs which can be commonly found in the margins have often adopted the same graphic shapes as technical signs, they did not serve the same purpose, which is quite clear from the fact that neither *signes de renvoi* nor omission signs can stand on their own – they must be always connected with a capsule of text to make sense – and that they appear always in complementary pairs. Technical signs, on the other hand, do not serve as mere pointers to a text, but have the same function as a text in that they themselves encode some information, not by means of written words but by means of graphic symbols or sigla.

⁷ Although not completely differently; one only needs to think of the modern proofreading marks.

⁸ See Henry D. Jocelyn, "The Annotations of M. Valerius Probus II," *The Classical Quarterly* 35 (1985), 149–61, at pp. 149–50.

⁹ The first to discuss technical signs systematically were grammarians representing the Alexandrian grammatical tradition such as Aristonicus, Didymus of Alexandria, Seleucus, and Philoxenus, several of whom composed treatises on the signs used for the *adnotatio* of Homer; see Martin L. West, *Studies in the Text and Transmission of the Iliad* (Munich, 2001), pp. 47–49 and 82. Elements which go back to these treatises seem to survive in early medieval Greek scholia and in three Greek sign treatises known under the names *Anecdotum Romanum*, *Anecdotum Venetum*, and *Anecdotum Harleianum*. The *anecdota* are discussed in Francesca Schironi, "The Ambiguity of Signs: Critical Σημεῖα from Zenodotus to Origen," in *Homer and the Bible in the Eyes of Ancient Interpreters*, ed. M. Niehoff, Jerusalem Studies in Religion and Culture 16 (Leiden, 2012), pp. 87–112, at 89; and Kathleen McNamee, *Sigla and Select Marginalia in Greek Literary Papyri*, Papyrologica Bruxellensia 26 (Brussels, 1992), p. 11.

treatises, dated to the second century AD. ¹⁰ The majority of the surviving technical treatises of this type are early medieval. The oldest complete sign treatise that survives is preserved in a Syriac manuscript from the seventh century, London, British Library, MS Add. 17148. ¹¹ In the near-absence of older evidence, the relationship between the classical $K\alpha\tau\dot{\alpha}\tau\dot{\alpha}\nu$ $\sigma\eta\mu\epsilon(\omega\nu)$ treatises and the medieval treatises is unclear. Nevertheless, the common subject creates at least an outward similarity between the two. The medieval treatises also obviously preserve shards of classical knowledge since they, for example, mention classical scholars by name and/or refer to ancient contexts.

Perhaps for this reason the study of the medieval evidence has been left, for most of the part, to classical scholars. They were using it to answer their particular disciplinary questions, which in turn resulted in a certain overemphasis of the classical aspect of this medieval material, e.g. its sources as well as its relationship to ancient practices. This approach produced relevant and important results, but it is by no means the only approach to the material. It is just as possible, and equally important, to look at the same evidence with the eye of a medievalist, focusing on the medieval state of the evidence, the reasons that led the medieval copyists to preserve this knowledge, and the relationship between the different medieval pieces of evidence.

In this article, I will analyze one of the medieval sign treatises, not as a depository of classical knowledge, but as a medieval object and a product of medieval processes. I will first introduce medieval sign treatise as a genre. Then, I will treat in detail the text in question, a sign treatise preserved in the *Liber Glossarum*, an early medieval glossographic compendium disseminated in the Carolingian realms in the course of the ninth century. Although most of the material contained in this sign treatise is known from other sources, in particular from Isidore of Seville's *Etymologiae*, I hope to show that its compilation into a new textual entity and the choices that governed

¹⁰ This is the papyrus PSI 1488 (also Plato 142T, saec. II) described in Vittorio Bartoletti, "Diogene Laerzio III 65–66 e un papiro della raccolta fiorentina," in *Mélanges Eugène Tisserant*, vol. 1, Studi e testi 231 (Vatican, 1964), pp. 25–30, and in Antonio Carlini, "Plato 142T," in *Corpus dei papiri filosofici greci e latini* I.2, ed. L. Olschk (Florence, 1999), pp. 613–15.

¹¹ This manuscript contains a treatise of Epiphanius of Salamis about the critical signs used by Origen in the Hexapla. The manuscript is described in James E. Dean, *Epiphanius' Treatise on Weights and Measures: The Syriac Version*, Studies in Ancient Oriental Civilizations 11 (Chicago, 1935), p. 3.

¹² For example, Kathleen McNamee, *Sigla*, p. 22 mentions the medieval sign treatises alongside classical evidence without much concern for how they are preserved and in what context they were compiled, assuming that the information about the Alexandrian scholars preserved in them can be taken at face value. Similarly, Klaus Sallmann, "De notis," in *Handbuch der lateinischen Literatur der Antike* IV: *Die Literatur des Umbruchs*, ed. R. Herzog and P.L. Schmidt (Munich, 1997), pp. 39–40 lists a medieval sign treatise alongside fragments from the works of Suetonius.

this act of compilation (and further reworking of this treatise) are important evidence that early medieval scholars had an active interest in the subject of *adnotatio*.

An edition of this treatise, to which I refer in the following sections, forms part of this article. Manuscript sigla used throughout can be found in appendix I.

Medieval sign treatises

Over twenty sign treatises survive in Western manuscripts from roughly 600 to 1100.¹³ They can be divided into two major categories: treatises that survive as anonymous self-standing texts, usually in miscellanies which contain similar short anonymous technical texts; and treatises which, although in some cases they originally had a similar format, survived because they were integrated into a larger work with a known author and were transmitted as an integral part of this work under its author's name. There was a constant dynamic relationship between these two forms of transmission, so that some of the integrated sign treatises were at one point or another excerpted and began to circulate as self-standing anonymous texts, usually in a new context of transmission. Moreover, many of the texts entered different states of hybridization, so that it is difficult to discern to what extent one should talk about "texts," "text versions," "excerpts," or "compilations of texts/excerpts." These texts should therefore be described not only in terms of their content, but also in terms of their form and relationship to affiliated texts.

This complexity can be illustrated with the fate of perhaps the best known sign treatise, the *De notis sententiarum* – "On the signs of judgment," which can be found as

¹³ Most of them can be found edited and analyzed in Steinová, "Notam superponere studui", pp. 59– 120 and 316-52. Also, there are some early sign treatises other than the Κατὰ τῶν σημείων treatises that were already mentioned in connection with the Classical Antiquity. Epiphanius of Salamis inserted a sign treatise into his De mensuris et ponderibus in the late fourth century, as was already mentioned above; Cassiodorus included one as a preface to his Expositio Psalmorum; and a family of the manuscripts of the Orationes of Gregory of Nazianzus which contains technical signs has been already mentioned in the introduction of this article. Epiphanius's treatise survives in Greek, Syriac, and Armenian. The Greek text with a Latin translation was printed in PG 43, cols. 237-93; a more recent edition is Elias D. Moutsoulas, "Τὸ Περὶ μέτρων καὶ σταθμῶν: ἔργον Ἐπιφανίου τοῦ Σαλαμῖνος," Θεολογία 44 (1973), 157-98. Translation from Syriac into English can be found in Dean, Epiphanius' Treatise (as in n. 11), pp. 15-23. The Armenian text is edited by Michael E. Stone and Roberta R. Ervine in The Armenian Texts of Epiphanius of Salamis De mensuris et ponderibus, Corpus Scriptorum Christianorum Orientalium 583 (Leuven, 2000), pp. 66-67, with an English translation on pp. 89-90. Cassiodorus's list is analyzed in James W. Halporn, "Methods of Reference in Cassiodorus," The Journal of Library History 16, no. 1 (1981), 71-91. A very fine early medieval example of this list can be found in Wolfenbüttel, Herzog August Bibliothek, MS Guelf. 4 Weiss., fol. 1v (saec. IX1, Weissenburg), at http://diglib.hab.de/mss/4-weiss/start.htm?image=00006.

one of the chapters in Isidore's *Etymologiae*.¹⁴ This sign treatise was integrated into the first book of the *Etymologiae* devoted to grammar together with five other similar sections on diverse *notae* to form one *capitulum* of the book (*Etym.* 1.21-26). Most of the material in the first book of the *Etymologiae* derives from Donatus's *Ars Maior* and his commentators, but this is not the case with this *capitulum* which has no parallel in Donatus or any other grammarian.¹⁵ It has been suggested that when Isidore compiled his encyclopedia in the early seventh century he must have had access to a number of shorter, anonymous sources which did not survive, and that one of them must have been a late antique sign treatise.¹⁶ In the middle of the nineteenth century, a short grammatical text discovered in Paris, Bibliothèque nationale de France, MS lat. 7530 (779–799, Monte Cassino) turned out to contain similar material as Isidore's sign treatise.¹⁷ Because of the manuscript's place of preservation, it became known as the *Anecdoton Parisinum*.¹⁸ Even though the manuscript in which it is preserved is almost two centuries younger than Isidore's *Etymologiae*,¹⁹ the *Anecdoton* seems to represent

¹⁴ Etymologiarum sive originum libri XX, ed. Wallace Martin Lindsay, vol. 1 (Oxford, 1911). The most recent Latin text and Spanish translation in *Etimologías*, trans. Reta Oroz and Casquero Marcos, vol. 1, Biblioteca de Autores Cristianos 433 (Madrid, 1982). This treatise was analyzed in Jacques Fontaine, *Isidore de Seville et la culture classique dans l'Espagne wisigothique* (Paris, 1983), pp. 74–80; and in Jocelyn, "Annotations of Valerius Probus II," pp. 152–53.

¹⁵ For Isidore's sources, see Martin Irvine, *The Making of Textual Culture: 'Grammatica' and Literary Theory 350–1100*, Cambridge Studies in Medieval Literature 19 (Cambridge, 1994), pp. 211–12.

¹⁶ Jacques Fontaine, Isidore de Séville et la culture classique dans l'Espagne wisigothique (Paris, 1983), pp. 196–97.

¹⁷ It appears on fols. 28r–29r, digitized at http://gallica.bnf.fr/ark:/12148/btv1b84900617.

¹⁸ Edited as Notae XXI quae uersibus apponi consuerunt, ed. H. Keil, Grammatici Latini 7 (Leipzig, 1880), pp. 533–36; reprinted in Grammaticae Romanae fragmenta 1, ed. G. Funaioli (Stuttgart, 1969), pp. 54–56; editio princeps in Theodor Bergk, "Anecdoton Parisinum," in Kleine philologische Schriften von Theodor Bergk, 2 vols., ed. R. Peppmüller (Halle, 1884), 1:580–612. The text has been discussed in Paulus Weber, Quaestionum Suetonianarum capita duo (Halle, 1903), pp. 3–24; and Stanley F. Bonner, "Anecdoton Parisinum," Hermes 88 (1960), 354–60. A second manuscript containing parts of the same anecdoton, Rome, Biblioteca Casanatense, MS 1086, fol. 64v (saec. VIII/IX, Benevento), was later discovered by Camillo Morelli; Camillo Morelli, "I Trattati di grammatica e retorica del cod. Casanatense 1086," Atti della Reale Accademia dei Lincei: Rendiconti della classe di scienze morali, storiche e filologiche 5:19 (1910), 287–328. See also Henry D. Jocelyn, "The Fate of Varius' Thyestes," The Classical Quarterly 30 (1980), 387–400, and a manuscript description at http://manus.iccu.sbn.it//opac_SchedaScheda.php?ID=15974.

¹⁹ A thorough description and analysis of it can be found in Louis Holtz, "Le Parisinus Latinus 7530, synthèse cassinienne des arts libéraux," *Studi Medievali* 16 (1975), 97–152. Both the Parisian and the Roman manuscripts are also described in Barbara Maria Tarquini, *I codici grammaticali in scrittura beneventana*, Biblioteca cassinese 2 (Montecassino, 2002), pp. 66–76 and 79–83.

a version of the sign treatise which Isidore used as a source.²⁰

The two texts – Isidore's *De notis sententiarum* and the *Anecdoton Parisinum* – share a common ancestor, which supplied the core of twenty-one technical signs to both. However, both texts also contain notable additions. Isidore's sign treatise consists of twenty-six signs, five of which seem to have been added by Isidore himself. The Anecdoton Parisinum is, in fact, a compilation of two distinct sign treatises copied together. The first bears the title Notae XXI quae uersibus apponi consuerunt (henceforth Notae XXI) and consists of twenty-one signs shared with Isidore. The other is called Notae simplices and lists fifteen different signs not found in De notis sententiarum.²¹ Like Isidore's De notis sententiarum, the Anecdoton Parisinum should be considered a medieval compilation, the makers of which happened to have had access to several texts, one of which was a version of the text which was also known to Isidore. Even if the content of De notis sententiarum in the Etymologiae, and the Notae XXI in the Anecdoton Parisinum is in places almost identical, they can be considered two versions of the same text only for the specific purpose of reconstructing their common ancestor. The context in which this common material was embedded, the degree of its reworking, and the intentions behind this reworking are too significant to consider the two witnesses of the same archetypal text mere versions of one single text.22

²⁰ Particularly strong evidence for a relationship between the two lists is the presence of the same quote from Virgil, *Aen.* 10.88 to illustrate the same sign; in *Etym.* 1.21.18: "Adversa cum obolo ad ea ponitur quae ad aliquid respiciunt, ut: Nosne tibi Phrygiae res vertere fundo conamur? nos? an miseros qui Troas Achivis obiecit?"; in the *Anecdoton Parisinum*: "Aversa obelismene in ore ponitur quae ad aliquid respiciunt ut nos te tibi fluxas frygiae." Already the *editor princeps*, Theodor Bergk, established the relationship between the two texts, see Bergk, "Anecdoton Parisinum," p. 593. The debate about the origins of the two texts and their relationship is treated in Jocelyn, "Annotations of Valerius Probus II," p. 152.

²¹ For this reason, I will distinguish the *Anecdoton Parisinum*, an early medieval compilation preserved in manuscripts, from *Notae XXI* and *Notae simplices*, two texts that seem to have older roots that make up this compilation. I maintain this distinction in order to differentiate between texts as abstract entities and the physical contents of manuscripts. It should be added that Casenatensis 1086 is cropped at the end and therefore now contains only the several opening lines of *Notae XXI*. Because of the cropping, it cannot be established whether it once also contained *Notae simplices*, which is, thus, preserved only in Paris lat. 7530.

²² For example, *De notis sententiarum* and *Notae XXI* disagree on the names of the twenty-one signs. A sign called *simplex ductus* (Γ) in *Notae XXI* is called *paragraphus* in *De notis sententiarum*. Similarly, a sign that Isidore calls *crisimon* (R, from Gr. χρήσιμον, "useful") is called *chi et ro* by the *Anecdoton Parisinum*. These two differences cannot be explained as errors, cases of rewriting or hypercorrection, nor as variant readings of the same text because one is not derivable from the other in a straightforward fashion.

Later in the early Middle Ages, *De notis sententiarum* as well as the whole Isidorian capitulum on the notae were excerpted, reworked, and transmitted as self-standing technical texts, including in the same Parisian manuscript which contains the Anecdoton Parisinum.²³ In the early eleventh century, the six sections on the notae from the Etymologiae were combined with a number of other similar short texts on different signs used in manuscripts to form the largest medieval compendium on diverse notae.²⁴ This compendium contains primarily excerpts from well-attested texts, such as Isidore's Etymologiae, Cassiodorus's Expositio Psalmorum, and a list of notae iuris, a type of legal abbreviations, as well as several obviously ancient texts about technical signs uniquely preserved in this compilation and edited by August Reifferscheid.²⁵ Reifferscheid did not choose to edit other parts of the compendium, probably because they represented well-known texts. His editorial decision completely obscured the fact that the compendium contained both ancient and medieval layers and even that there was such an entity as a large, thematically uniform compendium. His choice illustrates how crucial the modern interpretation can be in case of the assessment of such hybrids as the sign treatises.

What is characteristic for these medieval sign lists and sets them apart from the earlier Kατὰ τῶν σημείων treatises is their economical format often allowing for quick information retrieval, their eclectic nature, and their pronounced focus on ancient rather than contemporary practice. The oldest Kατὰ τῶν σημείων treatises produced

²³ *De notis sententiarum* can be found on fols. 154v–55v, at http://gallica.bnf.fr/ark:/12148/btv1b84900617/f304.item.

²⁴ This compendium is part of a more substantial florilegium, which was shown by Elizabeth Susan Lott, *The Florilegium of Cava 3, Madrid 19 and Paris 7418* (Harvard University, 1980) to have been produced at Monte Cassino in the early eleventh century. Of the three manuscripts discussed by Lott, the compendium on the *notae* is present only in Cava dei Tirreni, Archivio dell abbazia di sancta Trinita, MS 3, fol. 255r (saec. XI *med.*) and in Paris, Bibliothèque nationale de France, MS lat. 7418, fols. 168r–68v (saec. XIV). The Parisian manuscript is digitized at http://gallica.bnf.fr/ark:/12148/btv1b9065955k/f169.item.

²⁵ Reiffercheid edited them as the *Anecdotum Cavense*; A. Reifferscheid, "Mitteilungen aus Handschriften: I. Anecdotum Cavense de notis antiquorum," *Rheinisches Museum für Philologie* 23 (1868), 127–33. In the manuscripts, these texts form two sections of the compendium, the first entitled "De notis antiquorum" and the other "De oboelis et asteriscis platonicis, que nos ex Graeco transtulimus." The arguments for their ancient origin are provided by Reifferscheid in his article.

²⁶ One may compare texts such as that of Epiphanius of Salamis and the *Anecdoton Parisinum*. For Epiphanius one has to scan five folia of the Syriac manuscript (fols. 47c–51c) in order to learn about four signs and their meanings; the *Anecdoton Parisinum* gives information about these signs in sixteen lines of text on a single folio.

²⁷ See Isidore, *Etym.* 1.21.1: "Praeterea quaedam scripturarum notae apud celeberrimos auctores fuerunt, quasque antiqui ad distinctionem scripturarum carminibus et historiis adposuerunt." Similarly

in the first century AD have a certain polemical quality as they serve to define (and thus defend) the supposedly authentic Alexandrian practice and to enhance the prestige of the grammarians who published them.²⁸ The medieval sign lists have a more modest objective that limits itself to accumulating information about technical signs as far as they were available to the medieval compilers. However, even accumulation is not a neutral process as it presupposes active interest in technical signs and it can express different attitudes to them, e.g. encourage their use in scriptoria or private study.

The sign treatise in the Liber Glossarum

The *Liber Glossarum* is a massive alphabetically-ordered compilation of glossographic material containing some 27,000 items,²⁹ not counting in a number of longer encyclopedic entries taken from diverse *auctoritates*.³⁰ Its main sources are several well-known glossaries (Abstrusa, Abolita, Virgilian glosses, Placidus, *Synonyma Ciceronis*) together with Isidore's *Etymologiae*, and other Patristic works.³¹ The oldest and most important manuscripts of this large glossary, or alternatively glossographic encyclopedia, come from the Carolingian period, when this collection seems to have

in the *Notae XXI*: "His solis [i.e. notis] usi sunt Varros, Hennius, Haelius, aequae postremo Probus, qui illas in Virgilio et Horatio et Lucretio apposuit ut Homero Aristarchus."

²⁸ All these treatises were keen to stress that they reflect the teaching of Aristarchus of Samothrace (d. 144 BCE), the most famous Alexandrian grammarian. Compare with the polemical tone of the treatise of Ammonius, Aristarchus's successor in Alexandria, entitled *That there were not more editions of the Iliad by Aristarchus* (Περὶ τοῦ μὴ γεγονέναι πλείονας ἐκδόσεις τῆς Ἀρισταρχείου διορθώσεως); discussed in Peter M. Fraser, *Ptolemaic Alexandria I: Text* (Oxford, 1972), p. 464; and in Martin L. West, *Studies in the Text and Transmission of the Iliad* (Munich, 2001), p. 62.

²⁹ The number of items in the *Liber Glossarum* is taken from Michel Huglo, "Les arts libéraux dans le 'Liber Glossarum,'" *Scriptorium* 55 (2001), 3–33, at p. 3.

³⁰ The most up-to-date bibliography on the *Liber Glossarum* can be found at http://liber-glossarum.linguist.univ-paris-diderot.fr/node/13. The glosses from the *Liber Glossarum*, but not the longer inserts, are edited by W.M. Lindsay in *Glossaria Latina*, vol. 1 (Hildesheim, 1965). Samples from the glosses in the *Liber Glossarum*, primarily taken from the two oldest manuscripts, can also be found in *Corpus Glossariorum Latinorum*, vol. 5, ed. G. Goetz (Amsterdam, 1965), pp. 159–255. Anne Grondeux recently published a digital edition of the *Liber Glossarum*; see http://liber-glossarum.huma-num.fr/index.html. See also the description of this project in Anne Grondeux, "Le *Liber glossarum* (VIIIe siècle): Prolégomènes à une nouvelle édition," *Archivum Latinitatis Medii Aevi* 69 (2011), 23–51; and the two volumes published by her project, one published in a special volume of *Histoire Épistémologie Langage* 36:1 (2014), the other as *L'activité lexicographique dans le haut Moyen Âge latin: Rencontre autour du Liber Glossarum* (suite), eds. A. Grondeux and F. Cinato, Dossier d'HEL 8 (Paris, 2015), available at

http://htl.linguist.univ-paris-diderot.fr/num8/images/Liber glossarum ActesOnLine HEL8 2015.pdf.

 $^{^{31}}$ The sources of the Liber Glossarum are discussed in greater detail in Huglo, "Les arts libéraux."

enjoyed particular success and was used as a basis for a range of new works.³² David Ganz calls it "one of the major achievements of the reign of Charlemagne."³³

The compilation and the earliest dissemination of the *Liber Glossarum* are not well understood. Georg Goetz, who was the first to edit portions of this large compilation in his *Corpus Glossariorum Latinorum*, proposed that the compilation took place in Visigothic Spain between 690 and 750.³⁴ However, W.M. Lindsay, another editor of the glossary, strongly disagreed with Goetz and attributed it to Carolingian Francia.³⁵ The Carolingian viewpoint gained supporters particularly after T.A.M. Bishop argued that the prototype of the *Liber Glossarum* was compiled at the abbey of Chelles shortly before 800.³⁶ Yet, it is also clear that the *Liber Glossarum* contains elements that are decisively Visigothic.³⁷ The current scholarship focuses on the extent to which the *Liber Glossarum* was compiled in one or the other environment, i.e. whether we are looking at an older pre-compiled Visigothic compilation with some Carolingian additions, or rather whether a smaller Visigothic core was substantially extended and re-compiled by Carolingian users. The most recent contribution to this debate was provided by Anne Grondeux who was able to show that the oldest core of the *Liber Glossarum* seems to be based on an earlier dossier of material compiled by Isidore of

³² See David Ganz, "The 'Liber Glossarum': A Carolingian Encyclopedia," in *Science in Western and Eastern Civilization in Carolingian Times*, ed. P.L. Butzer and D. Lohrmann (Basel, 1993), pp. 127–38, at 127–28; and Lindsay, *Glossaria Latina*, 1:10–11. For the discussion of Carolingian extended versions and epitomes, see in particular Franck Cinato, "Prolégomène à un Catalogue des manuscrits du Liber Glossarum. I: Fragments, tradition directe et indirecte," in *L'activité lexicographique dans le haut Moyen Âge latin* (as in note 31), pp. 13–35.

³³ David Ganz, "The 'Liber Glossarum," p. 127.

³⁴ Placidus, Liber Glossarum, Glossaria reliqua, ed. Georg Goetz, Corpus Glossariorum Latinorum 5 (Amsterdam, 1965), p. xx. This opinion was accepted also by Manuel Díaz y Díaz, Vie chrétienne et culture dans l'Espagne du VIIe au Xe siècles (Aldershot: Variorum, 1992), p. 234.

³⁵ Wallace Martin Lindsay, ed., Glossaria Latina, vol. 1 (Hildesheim: Olms, 1965), p. 8.

³⁶ T.A.M. Bishop, "The Prototype of Liber glossarum," in *Medieval Scribes, Manuscripts and Libraries: Essays Presented to N.R. Ker*, ed. M.B. Parkes and A. G. Watson (London, 1978), pp. 69–86. Lindsay's and Bishop's position was accepted by David Ganz and Michel Huglo, as well as by Rosamond McKitterick; see Rosamond McKitterick, "Glossaries and Other Innovations in Carolingian Book Production," in *Turning Over a New Leaf: Change and Development in the Medieval Manuscript*, ed. R. McKitterick, E. Kwakkel, and R. Thomson (Leiden, 2012), pp. 21–76, at 44.

³⁷ Most notably glosses taken from the works of Julian of Toledo and from the Spanish family of the *Etymologiae*. See Roger Wright, "Latin Glossaries in the Iberian Peninsula," in *Insignis Sophiae Arcator: Medieval Latin Studies in Honour of Michael Herren on his 65th Birthday*, ed. G. Wieland, C. Ruff, R. Arthur, Publications of the Journal of Medieval Latin 6 (Turnhout, 2006), pp. 216–36, at 232–34.

Seville in the course of his work on the *Etymologiae* and produced in Zaragoza under its bishop Taio (ca. 600–ca. 683, bishop from 651–664) or shortly thereafter.³⁸

In the six manuscripts of the *Liber Glossarum* I was able to examine (see appendix I), I found a sequence of eight short texts concerned with diverse notae under the lemma nota. This sequence is already present in the oldest surviving manuscript of the Liber Glossarum copied in the characteristic Corbie ab-script, Paris, Bibliothèque nationale de France, MSS lat. 11529–11530 (P).³⁹ It should thus be considered a part of the prototype of the Liber Glossarum (although, as appendix I shows, this encyclopedic entry underwent significant changes in the course of the transmission of the Liber Glossarum in the Carolingian environment). The eight texts have a parallel in eight sections of the first book of the Etymologiae (Etym. 1.19–26) and are set apart by means of headings also derived from this encyclopedia. The sign treatise in the Liber Glossarum is, thus, called De notis sententiarum, just as in Isidore's work (Etym. 1.21), and I will refer to it as the DNS in order to distinguish it from the chapter with the same title in the *Etymologiae*. Depending on the manuscript, the *DNS* lists twentysix to twenty-eight technical signs (see appendix II) following the order of the twentysix signs in the Isidorian *De notis sententiarum*.⁴⁰ It was the most extensive sign treatise compiled in the early Middle Ages, and the richest source of information about technical signs available in the Carolingian period.

The fact that the *Liber Glossarum*, and particularly the longer entries in it, have not been edited so far nor subjected to a thorough analysis may explain why this sign treatise escaped the notice of scholars, despite the general attention which was given to this "genre" after the discovery of the *Anecdoton Parisinum*. Moreover, the entry concerned with *notae* may have been neglected because it was believed to derive from

³⁸ Anne Grondeux, "Note sur la présence de l'Hypomnesticon pseudo-augustinien dans le Liber glossarum," in *L'activité lexicographique dans le haut Moyen Âge latin* (as in note 30), pp. 59–78. Grondeux bases her argument primarily on the presence of the glosses from the *Hypomnesticon* in the *Liber Glossarum* and their attribution to Augustine. Prior to Gottschalk of Orbais in the 830s, the only other reference to this work is in Taio's *Sententiae*, which is the oldest source of the pseudo-Augustinian attribution. Grondeux also points out that Taio's predecessor, Braulio, was responsible for completing the *Etymologiae* after Isidore's death in 636 and for this purpose transferred Isidore's library to Zaragoza.

³⁹ This copy of the *Liber Glossarum* has two volumes, the first (MS lat. 11529) containing letters A–E, the second (MS lat. 11530) letters F–Z. Recently, Franck Cinato localized the two Parisian manuscripts directly in Chelles and dated them to before 800; see the manuscript description at http://www.europeanaregia.eu/en/manuscripts/paris-biblioth-que-nationale-france-mss-latin-11530/en. I have not had access to the other oldest manuscript, Cambrai, Bibliothèque municipale, MS lat. 693 (**C**), which, like Paris lat. 11529–11530, is copied in ab-script.

⁴⁰ For contrast, *Notae XXI* contains twenty-one signs in a distinct order, which is not echoed in the *DNS*. Also, the potential of an alphabetical ordering was not used in the *DNS*, despite the fact that the glossary is otherwise ordered alphabetically.

the Etymologiae, and therefore was of little interest on account of its lack of original content. Although the Etymologiae provided much of the material for this entry, to view the list as a mere excerpt from the Etymologiae is inaccurate, since such a view downplays the degree of re-writing and inclusion of non-Isidorian material. The DNS in particular should be considered a compiled sign treatise integrated into the Liber Glossarum. In this respect, it is comparable to the Anecdoton Parisinum, which was integrated into the compendium on the Liberal Arts in Paris lat. 7530, where each text forms a part of the larger whole, 41 or the Isidorian De notis sententiarum in the Etymologies, a work no less programmatic and coherent than the two other compilations.⁴² The chief difference between the DNS and the two other sign treatises is that for the DNS, we possess the key source (Isidore's Etymologiae) as well as the compiled end product (DNS). Without the Etymologiae, the DNS would appear not very dissimilar from the other two sign lists, the immediate sources of which are lost and beyond reconstruction. A thorough examination of how the DNS was compiled might allow us to better understand the other two sign lists, and more generally the emergence of medieval compilations of this type.

DNS has been first transcribed by Hermann Kettner in 1868 from Munich, Bayerische Staatsbibliothek, MS clm 14429 (M).⁴³ Kettner seems not to have recognized the list as a part of the Liber Glossarum. He considered it a self-standing sign treatise akin to the Anecdoton Parisinum, which had been discovered just decades earlier, and described it as a sister treatise of both De notis sententiarum and the Anecdoton Parisinum. He also proposed that the common origin of DNS, Anecdoton Parisinum, and De notis sententiarum was the now-lost sign treatise of Suetonius, the existence of which was postulated by Bergk when he edited the Anecdoton Parisinum.⁴⁴ Paul Weber reexamined Kettner's transcript in 1903 and pointed out that the list in M drew on the Isidorian list, Notae XXI, and other sources.⁴⁵ His study, however, was not well known and DNS continued to be considered a distinct witness of the tradition represented by Notae XXI and De notis sententiarum, and, moreover, a text confined to a single manuscript. Traube considered this list from M, together with a sign list in

⁴¹ According to Holtz, "Le Parisinus Latinus," pp. 103–6 and 129, the manuscript was copied by a single hand between 779 and 799, i.e. it came into being roughly at the same time as the oldest Carolingian exemplars of the *Liber Glossarum*. Holtz also shows convincingly that although the texts included in this compendium might seem independent textual units, they form, in fact, a single, structured textual entity.

⁴² Jocelyn, "Annotations of Valerius Probus II," pp. 152–53.

⁴³ Hermann Kettner, "Kritische Bemerkungen zu Varro und lateinischen Glossaren," in *Programm der Klosterschule Rossleben* (Halle, 1868), pp. 33–35.

⁴⁴ Bergk, "Anecdoton Parisinum," p. 593.

⁴⁵ Paulus Weber, Quaestionum Suetonianarum capita duo (Halle, 1903), pp. 8–13.

Boulogne-sur-Mer 44, a particular case of transmission of *De notis sententiarum*.⁴⁶ Gudeman listed it as one of the six central witnesses of the ancient critical signs in his Pauly entry on the critical signs.⁴⁷ Jocelyn mentioned it among other sign lists preserved in medieval miscellanies without any indication of its origin or nature.⁴⁸ Most recently, Ganz mentioned the list from **M** alongside the *Anecdoton Parisinum* and *De notis sententiarum* in his monograph on the scriptorium of Corbie, but even he did not seem to recognize that *DNS* is a part of the *Liber Glossarum*.⁴⁹

The compilation of DNS

In this section, I will describe the process of the compilation of the *DNS* from several perspectives. I will first look at the place that this sign treatise occupies in the longer entry on *notae* in the *Liber Glossarum*. Since the *Liber Glossarum* contains the same material on technical signs twice – as a compact, ordered list, the *DNS*, and as discrete glosses distributed under the respective alphabetical sections of the *Liber Glossarum* – I will then compare the *DNS* with these glosses to show that they were produced in a different manner. Finally, I will describe and analyze three methods employed by the compilers of the *DNS*, which I shall term stacking, blending, and merging, on the basis of selected items from this sign treatise. These various aspects of compilation throw light not only on the way early medieval users engaged with sign treatises, but also on the history of the *Liber Glossarum*.

As I noted above, the *DNS* is present in the *Liber Glossarum* as a part of a longer entry devoted to *notae* based on *Etym*. 1.19–26. What I have not mentioned is that the eight sections of the encyclopedic entry in the glossary are arranged in an order different from that of the *Etymologiae*:

Etymologiae	Liber Glossarum
De figuris accentuum (1.19)	De notis sententiarum
De posituris (1.20)	De notis distinctionum
De notis sententiarum (1.21)	De notis accentuum apud grammaticos
De notis vulgaribus (1.22)	De notis vulgaribus
De notis iuridicis (1.23)	De notis iuridicis
De notis militaribus (1.24)	De notis militaribus

⁴⁶ Ludwig Traube, Textgeschichte der Regula S. Benedicti (Munich, 1910), p. 725.

⁴⁷ A. Gudeman, "Kritische Zeichen," in Pauly-Wissowa, Realenzyklopädie der klassischen Altertumswissenschaft, vol. XI.2 (Stuttgart, 1922), cols. 1916–27.

⁴⁸ Jocelyn, "Annotations of Valerius Probus II," p. 151, n. 77.

⁴⁹ David Ganz, Corbie in the Carolingian Renaissance, Beihefte der Francia 20 (Sigmaringen, 1990), p. 69.

De notis litterarum (1.25)	De notis litterarum
De notis digitorum (1.26)	De notis digitorum

The DNS appears at the beginning of the sequence (rather than in the third position as in the Etymologiae) and is followed by De notis distinctionum, which treats punctuation symbols taken from the Etym. 1.20 (De posituris), and by De notis accentuum apud grammaticos, which derives from the Etym. 1.19 (De figuris accentuum). The re-ordering of Isidorian material is the first indication that the sequence of sections in the entry nota in the Liber Glossarum is more than just a plain excerpt from the Etymologiae. Or rather, this is true for the first three sections of the entry - De notis sententiarum, De notis distinctionum, and De notis accentuum apud grammaticos - whereas the five remaining sections follow the Etymologiae quite rigorously. The first three sections, for example, present the Isidorian material, which originally had the form of running prose, in a list-like format. Each item of the list thus created could be consulted separately, without the need to read the whole section. Such formatting of the material in these sections contrasts with that of the five other sections, which present the material in the same form as in the Etymologiae, even though at least in some cases, it would have been possible to arrange the material in a list-like fashion.⁵⁰ The first three sections of the entry thus seem to be clustered together by means of being formatted identically. This arrangement also suggests that these three sections were intended for a similar use, i.e. for consultation rather than for sequential reading.

As Grondeux points out, the same or similar material can frequently be found in the *Liber Glossarum* in several places as a part of different glosses.⁵¹ In the case of technical signs, the duplication of the same material in the *DNS* and in glosses may indicate a desire to make this material accessible along different systematizing principles: in an alphabetical order, i.e. so that the individual items can be found quickly, but detached one from another; and thematically, so that all technical signs can be found under a single entry, in the same manner as in the *Etymologiae* and in the *Anecdoton Parisinum*.

The *Liber Glossarum* includes twenty-three glosses which have the same content as the items in *DNS*.⁵² Just as the *DNS*, these glosses are derived from Isidore's chapter on the *notae sententiarum* (*Etym*. 1.21), as indicated by the tags *Esidori* or *Esid* attached to a number of them. Yet, a comparison of the two clusters of material shows

⁵⁰ In two manuscripts used for my edition, **G** and **A**, partial itemization took place in the section *De notis sententiarum*: the symbols for the two signs discussed in this section were added to the text at the head of the respective passage.

⁵¹ See Grondeux, "Le Liber glossarum."

⁵² I was unable to find glosses corresponding to three items that are present in Isidore's sign treatise: aversa obelismene, aversa cum obelo, and diple recta et aversa superne obelata.

that they were not derived from the same version of the *Etymologiae*, nor do they use the Isidorian material in the same manner. I shall illustrate this by looking at the items *asteriscus* and *obelus*:⁵³

7.1 Cl D170	7.1 01 1	T. 1
Liber Glossarum, DNS	Liber Glossarum, glosses	Etymologiae 1.21.2–3
(1) Asteriscum Arisfanes	AS190 Esidori. Asteriscus. Nota	(1) Asteriscus adponitur in
repperit. Haec autem aposita	est que in libris apponitur in his que	his quae omissa sunt, ut
est ab Origine ab his quae a	homissa sunt. ut inlucescant per	inlucescant per eam notam,
Septuaginta omissa sunt et in	eam notam que deesse uidetur.	quae deesse videntur. Stella
Hebreo habentur, scilicet ut	(11529, fol. 33v, ll. 34b–36b)	enim ἀστήρ dicitur Graeco
inlucescerent per eam notam		sermone, a quo asteriscus
quae deesse uidebatur. Stella		est dirivatus.
enim aster dicitur Graeco		
sermone a quo asteriscus est		
diriuatus.		
(2) Obolos id est uirgula iacens	OB328 Obolus. Id est, uirgula	(2) Obolus, id est, virgula
adponitur in uerbis uel	iacens nota est que apponitur in	iacens, adponitur in verbis
sententiis superflue iteratis siue	uerbis uel sententiis superflue	vel sententiis superflue
in his locis ubi lectio aliqua	iteratis, siue in his locis, ubi lectio	iteratis, sive in his locis, ubi
falsitata est, ut quasi quaedam	aliqua falsitate notata est ut quasi	lectio aliqua falsitate notata
sagitta iugulet superuacua atque	sagitta iugulet superuacua adque	est, ut quasi sagitta iugulet
falsa confodiat. Sagitta enim	falsa confodiat. Sagitta enim Grece	supervacua atque falsa
Graece obolus dicitur.	obolus dicitur. (11530, fol. 104r, ll.	confodiat. Sagitta enim
	29a-36a)	Graece ὀβελός dicitur.

The gloss on *asteriscus* reproduces the text of *De notis sententiarum*. The only additional element, "nota est quae," serves to encapsulate the isolated item, while omitting the etymology of the name of the symbol which was, perhaps, reserved for a separate gloss.⁵⁴ These two procedures – hyperonymization and omission/division of a longer text into more *lemmata* – have been reported for other items in the *Liber Glossarum* by Grondeux and seem to be characteristic of the compilation of its glossographic segments.⁵⁵ In contrast, in the item *asteriscus* in the *DNS*, the section

⁵³ The text given for *DNS* corresponds to the edition provided in appendix I. The text given for the glosses corresponds to manuscripts Paris lat. 11529–11530. I also add a reference to the digital edition of Anne Grondeux accessible at: http://liber-glossarum.huma-num.fr/index.html. The text of the Etymologiae is taken from Lindsay's edition. The number given with each item from *De notis* and from the *Etymologiae* indicates its order in the respective sign list as given in appendix II.

⁵⁴ See item AS204 in the digital edition, corresponding to Paris lat. 11529, fol. 33v, line 3c: Astra. Stella. Online at http://gallica.bnf.fr/ark:/12148/btv1b8454684f/f72.item.

⁵⁵ Grondeux, "Le Liber glossarum", pp. 38–43.

taken over from the *Etymologiae* begins only after *scilicet*, which joins material deriving from different sources. The passage "Asteriscum Arisfanes repperit" has its only parallel known to me in *Notae XXI*, which reads "Asteriscum Aristofanes apponebat illis locis quibus sensus deesset." The information about Origen's use of the *asteriscus* ("aposita est ab Origine ab his quae a Septuaginta omissa sunt") is not found in Latin sign treatises, but it is mentioned many times by the Fathers, particularly by Jerome and Epiphanius of Salamis. The item *asteriscus* in the *DNS* cannot be explained as having been taken from Isidore, since it contains information not found in the *Etymologiae*, but rather it combines material taken from several sources in a single chain of text (a process that I call merging).

The item *obelus* represents another type of formation. Isidore alone is the obvious source of this item both in the *DNS* and the gloss. Yet, the text of the *Etymologiae* used in the two cases was either not taken from the same version, or it was not treated with the same care. While the gloss reproduces the text of the Isidorian *obelus* item rather faithfully, again adding the hyperonymic element "nota est quae," the item in the *DNS* contains an error on account of *homoeoteleuton*: instead of "falsitate notata est" the text reads "falsitata est." The compiler is the likely source of this scribal error, but the presence of this error in the exemplar of the *Etymologiae* from which the *DNS*

⁵⁶ See Notae XXI, ed. H. Keil, Grammatici Latini 7, p. 534. In the sign treatises which pay attention to the origins of this sign, the ἀστερίσκος is associated with Aristarchus of Samothrace; see for example the Anecdoton Romanum, edited and translated in Martin L. West, Homeric Hymns, Homeric Apocrypha, Lives of Homer, Loeb Classical Library 496 (London, 2003), pp. 450–57. It is, thus, clear that there is a close textual relationship between the DNS and Notae XXI.

⁵⁷ Jerome mentions Origen and his textual criticism numerous times in his correspondence, apologetic writing, and prologues to the translation of the Bible. See for example Prologus in Pentateucho, ed. B. Fischer, J. Gribomont, H.F.D. Sparks, W. Thiele, and R. Weber, Biblia Sacra iuxta vulgatam versionem (Stuttgart, 1975), pp. 3-4: "Quod ut auderem, Origenis me studium prouocauit, qui editioni antiquae translationem Theodotionis miscuit, asterisco et obelo, id est stella et ueru, opus omne distinguens, dum aut inlucescere facit quae minus ante fuerant aut superflua quaeque iugulat et confodit." He describes Origen's method also in his prefaces to Joshua (Biblia Sacra iuxta vulgatam versionem, p. 285), Chronicles (Biblia Sacra iuxta vulgatam versionem, p. 546), Job (Biblia Sacra iuxta vulgatam versionem, p. 731), and the Gallican Psalter (Biblia Sacra iuxta vulgatam versionem, p. 767). Epiphanius of Salamis described Origen's textual criticism of the Bible in his De mensuris et ponderibus; trans. Dean, Epiphanius' Treatise on Weights, p. 17: "But when the followers of Aquila came later and filled in the things that had been omitted by the seventy-two, they seemed altogether superfluous. And Origen, coming after them, restored the word that was lacking in every place, but placed the asterisk by it." Note that the diction in Epiphanius's passage resembles that of the item asteriscus in the DNS more closely than any of Jerome's texts. Epiphanius should, thus, be considered a possible source of the DNS. While the Latin version of *De mensuris et ponderibus* does not survive, we know that one or more such versions were available in the early medieval Latin West, see Johannes Scotus Eriugena, Glossae divinae historiae: The Biblical Glosses of John Scottus Eriugena, ed. John J. Contreni and Pádraig Ó Néill, Millennio Medievale 1 (Florence, 1997), pp. 34-35.

was compiled cannot be excluded.⁵⁸ The *DNS* contains other errors, such as (see appendix I):

- 16 "inter germinos punctos" instead of "inter geminos punctos," in PVA
- 23–24 "quae in quo nexu concurrunt" instead of "quae in connexu concurrunt," in ${\bf P}$ ${\bf H}$ ${\bf G}^{59}$
- 29 "ubi quaestio dubia uel obscura" instead of "ubi quaestio dura et obscura"
- 31 "sic et antiquis a ueteribus positum inuenitur" instead of "sic et in antiquis auctoribus positum inuenitur" in ${\bf P}^{60}$
- 47–48 "Animis heros qui Troas a uiuis obiecit" instead of "An miseros qui Troas Achiuis obiecit"
- 51–52 "significantes similem sequentem" instead of "significant que similem sequentem" in ${\bf P\,V\,H\,G}$

Some of these "variants" arose as a result of misreading an exemplar of the *Etymologiae* written in an unfamiliar script ("a ueteribus" – "auctoribus"), as an attempt at scribal correction ("dubia" – "dura"), while others may already have been present in the manuscript(s) of the *Etymologiae* from which these texts were excerpted ("significantes" – "significantque").⁶¹

The items *asteriscus* and *obelus* illustrate two patterns of rewriting that can be encountered in *DNS*: the first involves the use of additional sources, and the second involves straightforward rewriting of the *Etymologiae*, which may or may not involve additional variation (e.g. because of scribal errors or variant readings in the exemplar used). The glosses dispersed throughout the *Liber Glossarum* correspond to the second pattern of rewriting: they reproduce fully or nearly fully the text of *Etym.* 1.21. They also contain very few errors, as if they were copied with care or perhaps from a

⁵⁸ This error does not feature in Lindsay's critical edition of the *Etymologiae* (see appendix I), yet I do not want to exclude the possibility that it came from the manuscript of the *Etymologiae* used in the compilation of the *DNS*.

⁵⁹ In addition V *a.c.* and A have "quo nexa", probably a rendering of "quo nexu" from an unfamiliar script.

 $^{^{60}}$ In addition **A** has "antiquis a uetoribus" and **V** contained the same phrase *a.c.*, again possibly a rendering of "antiquis a ueteribus" from an unfamiliar script.

 $^{^{61}}$ I have attempted to compare the text of the *DNS* against the edition of the *Etymologiae*, but was unable to identify any particular manuscript family as the source for the *DNS*. The peculiar misreading of the Virgilian quotation, which is shared by all manuscripts of the *Liber Glossarum* that I examined occurs in Lindsay's manuscript **T**, but this manuscript and the family γ (Spanish manuscripts) to which it belongs, has other features which do not appear in the *DNS*. A more thorough analysis of the employment of the Isidorian text in the making of the glossary might reveal more about potential affinities with a particular family.

different, less faulty exemplar than the *DNS*.⁶² These glosses may be considered to form a unity based on the recurring tagging as Isidorian and also based on other formal features, such as the presence of a corresponding Isidorian graphic symbol at the head of the *lemma* in the case of thirteen of the twenty-three glosses.⁶³

By contrast, no symbols feature next to the items in the *DNS* either in **P**,⁶⁴ in **V**,⁶⁵ in **A**,⁶⁶ or in **G**.⁶⁷ Instead, a ζήτει sign (\mathbb{Z} or \mathbb{Z} , Gr. imperat. "look up, query") in the intercolumn space, a common query sign in early medieval manuscripts,⁶⁸ marks the

⁶² Only one gloss, "diple periestigmene" (DI524b), contains an obvious error/textual variant: "nostri euasi sunt" (instead of "nostri ea usi sunt"); see Paris lat. 11529, fol. 91r, lines 8b–9b, at http://gallica.bnf.fr/ark:/12148/btv1b8454684f/f187.item.

⁶³ These are: ancora superior, ancora inferior, antigraphus cum puncto, antisigma, antisigma cum puncto, asteriscus, asteriscus cum obolo, diple, diple peristichon, diple periestigmene, diple obelismene, diple superne obelata, and phi et ro. The tag Esid. or Esidori appears next to (in alphabetical order): ancora superior, antigraphus cum puncto, antisigma, asteriscus, crisimon, diple, positura, cryphia and lemniscus. Only one of the glosses, paragraphus (PA386), is prefixed by a non-corresponding symbol, a theta (Φ) , see Paris lat. $11530, fol.\ 118v, line\ 43a, at\ http://gallica.bnf.fr/ark:/12148/btv1b8454685v/f242.item.\ This$ technical sign is also attached to other glosses in the Liber Glossarum. It is mentioned by sign treatises and other texts as a deletion sign with a strong negative connotation. See the Anecdotum Cavense, ed. Reifferscheid, "Mitteilungen aus Handschriften," p. 128: " Theta in amputandis." In Notae simplices, ed. H. Keil, Grammatici Latini 7, p. 536: " Supervacuus." Also Etym. 1.3.8: "Quinque autem esse apud Graecos mysticas litteras. ... Secunda Θ , quae mortem [significat]. Nam iudices eandem litteram Θ adponebant ad eorum nomina, quos supplicio afficiebant. Et dicitur Theta ἀπὸ τοῦ θανάτου, id est a morte. Vnde et habet per medium telum, id est mortis signum"; and Sidonius Apollinaris, Carm. 9.332: "Germanum tamen ante sed memento/doctrinae columen, Probum advocare,/isti qui valet exarationi/destrictum bonus applicare theta." For the use of this technical signs in the early Middle Ages, see Steinová, "Notam superponere studui", p. 289.

 $^{^{64}} At\ http://gallica.bnf.fr/ark:/12148/btv1b8454685v/f202.image.r=Liber\%20glossarum.langEN.$

⁶⁵ At http://digi.vatlib.it/view/bav_pal_lat_1773/0428.

⁶⁶ Accessible via the *Digital Ambrosiana on Internet*, at http://dai.ambrosiana.eu/nav/info?f1stId=&resId=&s2ndId=B+36+inf.&agency=MI0133&agencyT ype=2&submitType=external.

⁶⁷ At http://www.e-codices.unifr.ch/de/csg/0905/630/medium.

⁶⁸ For the use of this technical signs in the early Middle Ages, see Steinová, "Notam superponere studui", pp. 291–92. It is also described in the *Anecdotum Cavense*, ed. Reifferscheid, "Mitteilungen aus Handschriften," p. 128: "Z Zeta in incertis"; and in the Syriac Epiphanius, Dean, *Epiphanius' Treatise on Weights*, p. 15: "Z for obscure passages in the Scriptures." Paul the Deacon also mentions it in a letter addressed to his friend, Adalhard of Corbie: "Quia mihi eas ante relegere praeoccupatione totas non licuit, triginta quattuor ex eis scito relectas et prout potui emendatas esse, praeter pauca loca... quibus in locis et forinsecus ad oram zetam, quod est uitii signum, apposui"; transcribed in Wallace M. Lindsay, "Collectanea Varia II. Correction of mss.," in *Paleographia Latina* II (Oxford, 1923), p. 11. It is unclear, however, whether the *zeta* in the *Liber Glossarum* served as a simple correction or whether, which is more likely, it had a different function.

beginning of new items where graphic symbols should be in these manuscripts.⁶⁹ The symbols are present in **H**, in **M**, and were possibly also present in the twelfth-century manuscript that was used by Gottfried Bessel for making his *Chronicon Gotwicense* (**B**, see Appendix I). As Appendix I shows, **H**, **M**, **B** form a cluster that is characterized by reworking which involved correction against a manuscript of the *Etymologiae*. This correction can also explain the re-insertion of the symbols into the manuscript which was the common parent of **H**, **M**, and Bessel's manuscript.

Twenty-one of the items in the *DNS* were produced by rewriting of the *Etymologiae* along the pattern illustrated on the item *obelus*. Overall, these items contain more errors, variant readings, and instances of minor, mostly stylistic and grammatical rewriting than the glosses. I will not discuss these twenty-one items further, but rather focus on the remaining items that were rewritten along the lines of the *asteriscus*, because they provide the most important insight into the process of the compilation of the *DNS* and the history of the *Liber Glossarum*. They will be discussed in the following order: *phi et ro* and *ancora superior*, which exemplify the process of stacking; *cronis* and *cryphia*, which represent the process of blending; and *diple*, which like *asteriscus*, reflects merging. It should also be mentioned that one of the Isidorian symbols, *positura* (\neg) , is missing from the sign treatise in the *Liber Glossarum*, although it has been added into the margin of **M** and **H** and is present in **B** (see appendix I). This re-insertion should, again, be ascribed to the correction against a manuscript of the *Etymologiae*.⁷⁰

Stacking

Stacking, the juxtaposition of multiple items from several sources, is the most clearly visible compilation process in the *Liber Glossarum*. As a result of stacking the *DNS* contains two *phi et ro* signs (as items 21 and 22) and two *ancora superior* signs (as items 23 and 24).⁷¹ The text of the first item in each pair (items 21 and 23) was taken

⁶⁹ Several explanations can be given for the presence of *zeta*, which was used in the sense of "check" or "find," in the oldest manuscripts of the *Liber Glossarum*. It may indicate that the compilers of the prototype of the *Liber Glossarum* were in doubt concerning the symbols which were to be added to individual technical signs, or that they planned to add them at a later stage but never carried out their plan, or that the multiple sources for the *DNS* contained incompatible symbols that the compilers found impossible to synthesize.

 $^{^{70}}$ This sign is one of the five added by Isidore to the original core of twenty-one signs and is also absent from *Notae XXI*. This may have been the reason why the compilers of *DNS* removed it from this sign treatise.

⁷¹ The first *ancora superior* is absent from **G**, **M**, and **B**. Again, this may be ascribed to the correction against the *Etymologiae*.

from a source akin to *Notae XXI*, while the text of the second item (items 22 and 24) comes from the *Etymologiae*, as can be seen in the following table:⁷²

Liber Glossarum, DNS	Liber Glossarum, glosses	Isidore, Etymologiae 1.21.23–24	Notae XXI
(21) Pietro. Haec			(18) Fi et ro. Haec
apponitur quotiens uel			apponuntur quotiens
emendatio uel sensus			uel emendatio uel
uersuum sollicitius est			eius versus sollicitius
inspiciendus.			est inspiciendus.
(22) Pietro id est	PI63 Pietro id est frontis.	(22) Phi et Ro, id est	
frontis ubi aliquid	Haec nota ubi aliquid	φροντίς. Haec, ubi	
obscuritatis est ob	obscuritatis est ob	aliquid obscuritatis	
sollicitudinem	sollicitudinem ponitur.	est, ob sollicitudinem	
ponitur.	(11530, fol. 129v, lines	ponitur.	
	25a-27a)		
(23) Ancora superior			(19) Anchora
ponitur ad aliquid			superior ad aliquod
praecipue dictum.			precipue dictum.
(24) Ancora superior	AN98 Esidor. Ancora	(23) Anchora	
ponitur ubi aliqua res	superior. Nota est que in	superior ponitur ubi	
magna omnino est.	libris apponitur. ubi aliqua	aliqua res magna	
	res magna omnino est.	omnino est.	
	(11529, fol. 20v, lines		
	37b-39b)		

The duplication of the *phi et ro* and the *ancora superior* is the clearest piece of evidence that the compilers of the *DNS* used a text resembling *Notae XXI* as a source for the sign treatise. It is interesting that they chose to "stack" these two items (rather than to blend or merge them), and that, although their source, as far as it was similar to *Notae XXI*, must have provided them with other potential items for duplication, they did not "stack" other items, but rather blended and merged them. A good example is the item *ancora inferior*, which was taken over into the *DNS* only from the *Etymologiae*:

⁷² The *Notae XXI* consists of two ordered lists of signs, which I mark A and B. List A contains only the symbols and the name of the sign and serves as a contents page for the treatise; list B includes the symbol, the name, and the definition of the sign. In most cases, the two sections present the signs in the same order and under the same names, but in several cases there is a discrepancy between list A and list B. When there is a discrepancy, two entries appear in the tables, the first corresponding to list A and the second to list B. The differences between the two can be seen in appendix II.

Liber Glossarum, DNS	Liber Glossarum, glosses	Isidore, Etymologiae 1.21.25	Notae XXI
(25) Ancora inferior.	AN99 Ancora inferior.Vbi	(24) Anchora	(20) Anchora
ubi aliquid uilissime	aliquid uilissimae uel	inferior, ubi aliquid	inferior ad humilius
uel inconuenientius	inconuenientius	vilissime vel	vel inconvenientius
denuntiatum est.	denunciatum est. (11529,	inconvenientius	quid enuntiatum
	fol. 20v, lines 40b–41b)	denuntiatum est.	

Stacking may possibly have been dictated by the degree to which the two sources, the *Etymologiae* and the one akin to the *Notae XXI*, were or were not compatible and could or could not be seen as a single definition even if they existed in two different versions. In the item *ancora inferior*, *uilissime* can be interpreted as a synonym of *humilius*, and *denuntiatum* and *enuntiatum* as variants of the same verb, and thus not to represent both of them in the sign list. On the other hand, "aliquod precipue dictum" and "ubi aliqua res magna omnino est" in the item *ancora superior* were not interpreted as synonyms and thus both definitions of the technical sign were retained.

One of the outcomes of this duplication of items may have been confusion regarding the number and the shapes of the signs. Even though the compilers of the *Liber Glossarum* may have been aware that what they represented as two items in the *DNS* was, in fact, a single sign, this might not have been evident to the later users of the *Liber Glossarum* or copyists drawing on *DNS*. *Phi et ro* is among the signs to be found in the manuscripts from the Carolingian period⁷³ and, indeed, in these manuscripts the shape of this sign seems to be less stable than that of other signs.⁷⁴ In Munich, Bayerische Staatsbibliothek, MS clm 6375, a copy of Eusebius/Rufinus's *Historia Ecclesiastica* from early ninth-century northern Italy,⁷⁵ the annotator seems to

⁷³ I rely on my survey of the digitized eight- and ninth-century manuscripts in the Bayerische Staatsbibliothek. Some manuscripts from this set which contain the *phi et ro* are MS clm 6253, a copy of Cassiodorus's *Expositio Psalmorum* I–L (saec. IX¹, Freising); MS clm 6277, a copy of Gregory the Great's *Regula Pastoralis* (saec. IX *in.*, Freising); MS clm 6375 discussed in greater detail in this article, a copy of Eusebius/Rufinus's *Historia Ecclesiastica* (saec. IX *in.*, Freising); MS clm 14077, another copy of Cassiodorus's *Expositio Psalmorum* I–L (saec. IX¹, Regensburg); and MS clm 15818 (1–96), a copy of ps-Augustinian *Definitio ecclesiasticorum dogmatum* (saec. IX *med.*, Würzburg).

⁷⁴ See also Wolfenbüttel, Herzog August Bibliothek, MS Guelf. 64 Weiss. (Lindsay's **K**), fol. 14v, at http://diglib.hab.de/mss/64-weiss/start.htm. In this copy of the *Etymologiae* produced at Bobbio in the first half of the eighth century, and also in several other manuscripts of the *Etymologiae*, the Isidorian *phi et ro* in *De notis sententiarum* is accompanied by two different graphic symbols comparable with the graphic symbols in *DNS*.

⁷⁵ Accessible at http://daten.digitale-sammlungen.de/bsb00054504/image_1.

have used two types of *phi et ro* instead of one.⁷⁶ It is impossible to say whether the scribe meant the variant forms of *phi et ro* to stand for one or for two functions. To my knowledge, the list in the *Liber Glossarum* is the only source that suggests the existence of multiple *phi et ro* signs.⁷⁷

Blending

Blending can be defined as the reassembling of multiple items into a single new item, where the individual original components are no longer distinguished, for example by linking words such as *aliter* or *uel*. A good example of this process is the item *cronis* (from Gr. κορωνίς, "flourish"):

Liber Glossarum, DNS	Liber Glossarum, glosses	Isidore, Etymologiae 1.21.26	Notae XXI
(26) Cronis tantum in	Cronis. Nota est que	(25) Coronis nota	(9) Coronis autem
fine libri apud omnes	tantum in fine libri	tantum in fine libri	in fine libri posita
positum inuenitur.	apponitur. (11529, fol. 77r,	adponitur.	invenitur.
	line 29a)		

While the gloss in the body of the *Liber Glossarum* follows the *Etymologiae*, the item in the *DNS* seems to blend Isidorian material ("tantum in fine libri," as opposed to "autem in fine libri" in the *Notae XXI*) with material resembling that of *Notae XXI* ("posita inuenitur" as opposed to "apponitur" in the *Etymologiae*).⁷⁸ Moreover, the DNS adds "apud omnes" not found in its sources. The item is thus neither an excerpt from the *Etymologiae* nor from the source resembling *Notae XXI*; rather, the act of rewriting created a text with its own integrity, which behaves as a new element in the tradition. We can understand how such a new formation for *cronis* occurred in the *DNS* only because we possess both *Notae XXI* and the *Etymologiae*. Blending might

⁷⁶ A *phi et ro* with a circular lower part features e.g. on fol. 25r, at http://daten.digitale-sammlungen.de/bsb00054504/image_51); while a different *ro*-based sign that could, too, be a *phi et ro* may be found on fol. 71v, at http://daten.digitale-sammlungen.de/bsb00054504/image_144.

⁷⁷ One of the technical signs mentioned earlier in connection with Gregory of Nazianzus, $\dot{\omega}$ ραῖον ($\dot{\theta}$), had in Antiquity a function and a graphic symbol comparable to that of *phi et ro* ($\dot{\theta}$ or $\dot{\psi}$). We have, however, evidence of its use only until the end of the sixth century, mostly in law manuscripts; see McNamee, *Sigla*, p. 21; Kathleen McNamee, *Annotations in Greek and Latin texts from Egypt*, American Studies in Papyrology 45 (Oakville, Conn., 2007), p. 23.

⁷⁸ It could be also argued that *autem* and *tantum* have been mistaken one for another by a copyist. However, it should be noted that the standard abbreviation symbols for the former (*au* or *aut*) does not resemble the abbreviation symbol for the latter (*tt* or *tm*) and they were not usually confused; see W.M Lindsay, *Notae Latinae: An Account of Abbreviation in Latin Mss. of the Early Minuscule Period* (*c.* 700–850) (Cambridge, 1915), pp. 13–25 and 304–6.

not be so readily discernible in the latter two sign treatises, or in other texts, even if they should be equally suspected.

Blending, it seems, also played a role in another item in the *DNS*, the *anfibolen*. The text of this item is taken in entirety from the *Etym*. 1.21.10, but while Isidore calls this technical sign *cryphia*, the *DNS* refers to it as *anfibolen*. The reason for the substitution of one name for another is unclear, as we lack external evidence for the existence of a symbol bearing the name *anfibolen* in other sign treatises. *Amphibolia* is mentioned in *Etym*. 1.35.13 as one of the errors that should be avoided in writing. However, the sign and the name for a certain type of error are not interchangeable, the former being an external marker for a passage that contained *amphibolia*, but not *amphibolia* itself. Servius's Commentary on the *Aeneid*, where an *amphibolon* (Gr. ἀμφίβολον, "ambiguous, doubtful") is mentioned multiple times, is a more plausible source of inspiration for the medieval compilers. Servius, *In Aen*. 3.711 reads:

FESSVM DESERIS ut supra diximus, secundum Vergilium: nam Cato eum [in originibus] ad Italiam venisse docet; unde etiam in Sexto illud amphibolon est quo magis Italia me cum laetere reperta.⁸¹

Servius seems to indicate that the respective passage in the third book of the *Aeneid* contains some ambiguity and that it was also recognized as an *amphibolon*, i.e. the Isidorian *amphibolia*, by Sextus Pompeius Festus, a second-century grammarian and the author of the glossographic *De verborum significatu*. Other references to *amphibolon* in Servius correspond to this meaning and make use of phrases such as "amphibolon est hoc loco" and "(illud) amphibolon est." Nevertheless, a non-proficient, or imaginative, reader may have read these passages as indicating that Festus placed a symbol called the *amphibolon* next to them, either in his glossary or in his copy of the *Aeneid*. In these instances Servius could have been read as referring to technical signs also because in his commentary on *Aeneid* 10.444 he seems to be referring to the *adnotatio*:⁸³

Ergo satis licenter dictum est, adeo ut huic loco Probus ... alogum adposuerit.

⁷⁹ See *Etym.* 1.21.10: "Cryphia, circuli pars inferior cum puncto, ponitur in his locis, ubi quaestio dura et obscura aperiri vel solvi non potuit." Gloss *vel cryphia* was added to *anfibolen* above the line in **M**; Kettner, "Kritische Bemerkungen," p. 34.

⁸⁰ Etym. 1.35.13: "Amphibolia, ambigua dictio, quae fit aut per casum accusativum, ut illud responsum Apollinis ad Pyrrhum (Enn. Ann. 179): Aio te, Aeacida, Romanos vincere posse. In quo non est certum, quem in ipso versu monstraverit esse victorem."

⁸¹ Hermann Hagen, Servii grammatici qui feruntur in Vergilii carmina commentarii, vol. 2 (Stuttgart, 1884), p. 457.

⁸² See Servius, *In Aen.* 1.492, 4.178 and 5.439.

⁸³ See Hagen, Servii commentarii 2, p. 438.

Here Servius seems to remark that the first-century grammarian Valerius Probus placed an *alogus*, a technical sign known from several Latin sign treatises,⁸⁴ to a particular Virgilian verse, an assumption strengthened by the use of the verb *adposuerit*. Festus's *amphibolon*, however, was probably misinterpreted when it was considered to refer to a sign, one that would designate ambiguity in the text, just as the Isidorian *cryphia*. Or perhaps it was no misunderstanding, but a piece of intentional engagement with Servius's commentary on the *Aeneid*. In any case, this case of blending may reveal another source that the compilers of the *DNS* had at their disposal – Servius's Commentary on the *Aeneid*.

Merging

The item *asteriscus*, analyzed above, can be considered a case of merging, i.e. assembling multiple source elements into a single new unit, in which the original elements are juxtaposed and therefore can be set apart. Another example of merging is the item *diple*, which can be divided into three shorter passages linked together with the Latin words *siue* and *quoque*:

Liber Glossarum, DNS	Liber Glossarum, glosses	Isidore, Etymologiae 1.21.13	Notae XXI
(11) Diple siue antilabda. Hanc	DI524 Esidor. Diple nota.	(12) Diple. Hanc	
primus Leogaras Siracusanus	Hanc scriptores nostri	scriptores nostri	
posuit Homericis uersibus ad	apponunt in libris	adponunt in libris	
separationem Olympi a caelo.	eclesiasticorum ad separanda	ecclesiasticorum	
Hanc quoque nostri eclesiastici	uel demonstranda testimonia	virorum ad separanda	
uiri utuntur in codicibus ad	sanctarum scripturarum.	vel [ad]	
designanda testimonia diuinarum	(11529, fol. 91r, lines 48a-	demonstranda	
Scripturarum quae ob dictorum	51a)	testimonia sanctarum	
confirmatione exempli causa		Scripturarum.	
interponuntur.			

The passage starting after "hanc quoque" may be seen as a peculiar case of rewriting of the Isidorian *diple*. Alternatively, the text of the *Etymologiae* is here blended with a source I was unable to identify. Note that unless the passage "quae ob dictorum confirmatione exempli causa interponuntur" comes from an unidentified source other than Isidore, it represents a unique case of extensive interpolation in *DNS* by the compilers.

The passage "Hanc primus ... a caelo" was taken from Isidore's item *diple* peristichon (Etym. 1.21.14) and is repeated in the DNS under this item as well. It is

⁸⁴ Etym. 1.21.27: "Alogus nota [quae] ad mendas adhibetur." *Alogus* is present also in list A of *Notae XXI* (but not in list B) and in the *DNS*.

unclear whether this duplication should be seen as an outright error of the compilers – an error that was, surprisingly, overlooked and kept in multiple manuscripts of the *Liber Glossarum*⁸⁵ – or as an attempt to resolve a problem which originated with Isidore. Isidore seems to have been unaware that the two items he presented as the *notae sententiarum* refer to only one technical sign – the simple, undotted *diple*. He lists both a *diple* and a *diple peristichon* (from Greek ἀπερίστικτος, i.e. undotted). *Notae XXI* contain a single sign which once has he name *diple* and at another time *diplen aperistikton* (see appendix II), and this is the case also with the oldest Greek sign treatise, the *Anecdotum Romanum*.⁸⁶ The following table illustrates the situation:

Liber Glossarum, DNS	Liber Glossarum, glosses	Isidore, Etymologiae 1.21.13–14	Notae XXI	Anecdotum Romanum ⁸⁷
(11) Diple. siue	DI524 Esidor.	(12) Diple. Hanc	(5) diple	(1) διπλῆ
antilabda. Hanc	Diple nota.	scriptores nostri	(5) diplen	ἀπερίστικτος. The
primus Leogaras	Hanc scriptores	adponunt in	aperistikton.	diple undotted is
Siracusanus	nostri apponunt	libris ecclesi-	Primus Leagoras	placed by a line
posuit Homericis	in libris eclesi-	asticorum	Syracusanus	with reference to
uersibus ad	asticorum ad	virorum ad sep-	[apposuit]	the glossographers
separationem	separanda uel	aranda vel [ad]	Homericis	or others who
Olympi a caelo.	demonstranda	demonstranda	versibus ad	have interpreted
Hanc quoque	testimonia	testimonia	separationem	the poet's words
nostri eclesiastici	sanctarum	sanctarum	Olympi [a cae]lo	in an idiosyncratic
uiri utuntur in	scripturarum.	Scripturarum.	propriae	and erroneous
codicibus ad	(11529, fol. 91r,		Olympum ab eo	way; or with
designanda	lines 48a–51a)		pro monte	reference to words
testimonia			positum adnotans	occurring only
diuinarum			nusquam pre celo.	once, or to
Scripturarum,			quod sepae (sic)	contradictions and
quae ob			oypanon eypin (=	inconsistencies, or

⁸⁵ In **G** the item *diple peristichon* is absent, likely because it was considered an unnecessary duplication of the previous item. **M** and **B** omit the reference to Leogarus of Syracuse from the item *diple*.

⁸⁶ Edited in Friedrich Osann, Anecdotum Romanum de notis veterum criticis inprimis Aristarchi Homericis et Iliade Heliconia (Giessen, 1851), pp. 3–5; translated in West, Homeric Hymns, pp. 450–57. The manuscript in which the sign treatise is preserved is usually dated to the tenth century, but West, Studies in the Text and Transmission of the Iliad, p. 139 has recently re-dated it to the second half of the ninth century. Anecdotum Romanum is the modern name of this short text which bears in the manuscript the title Tὰ παρατιθέμενα τοῖς Ὁμηρικοῖς στίχοις Ἀριστάρχεια σημεῖα – "The Aristarchian signs placed beside lines of Homer."

 $^{^{87}}$ This text corresponds to the English translation of Martin West, *Homeric Hymns*, pp. 451 and 453.

dictorum			οὐρανὸν εὐρύν)	to many other
confirmatione			dicat et	figures and
exempli causa			MAKPON	problems.
interponuntur.			ΟΛΥΜΠΟΝ	(1) The διπλῆ is
(12) Diple	DI524a Diple	(13) Diple περὶ	neque et	used by
persticon. Hanc	peristicon. Hanc	στίχον. Hanc	econtrario	Aristarchus with
primus Leogarus	primus Leogarus	pri[m]us	epitheta permutat	reference to
Siracusanus	Siracusanus	Leogoras	ponebat autem	mythology, figures
posuit Homericis	posuit	Syracusanus	tam ad montis	of speech, and
uersibus ad	Homericis	posuit Homericis	significationes	diverse other
separationem	uersibus ad	versibus ad	quam ad caeli.	purposes.
Olimpi a caelo.	separationem	separationem	utrumque	
	Olympi a caelo.	Olympi a caelo.	manifestatur	
	(11529, fol. 91r,		voluntas eius. usus	
	lines 52a-3b)		et in multis	
			Aristarchus nunc	
			ea quae preter	
			consuetudinem	
			tam vitae nostrae	
			quam ipsius poete	
			apud eum	
			invenirentur	
			adnotans. nunc	
			proprias ipsius	
			figuras. interdum	
			ea in quibus	
			copiosus est rursus	
			quae semel apud	
			eum ponerentur	
			similiter in nostris	
			auctoribus Probus.	

The Anecdoton Parisinum and the Anecdotum Romanum use the names diple and διπλῆ ἀπερίστικτος (i.e. undotted diple) as interchangeable, the latter being a more specific designation of the diple that distinguishes it from the diple periestigmene (διπλῆ περιεστιγμένη, i.e. dotted diple). Both, moreover, describe the diple as it was employed in Classical Antiquity, i.e. they talk about a sign that was employed "as the medieval

nota sign," as Francesca Schironi puts it.⁸⁸ Towards Late Antiquity, however, diple became increasingly used for quotations, and particularly for quotations from the Bible.⁸⁹ The two items in *De notis sententiarum* very likely reflect two distinct sources on which Isidore drew for his sign treatise: on the one hand, his knowledge of the living practice of using diplai as quotation marks in Patristic texts, and on the other, a written source that discussed the Classical practice. Unlike Isidore, the compilers of the Liber Glossarum might have realized that the diple and the diple peristichon are one and the same technical sign or they simply followed a source resembling Notae XXI in which the item which mentions Leogarus of Syracuse was called only diple.

The alternative name antilabda attached to this item in the Liber Glossarum features neither in the Thesaurus Linguae Latinae nor Forcellini's Lexicon Totius Latinitatis nor Lexicon Totius Graecitatis. It, however, appears in a sign treatise preserved in a family of tenth- and eleventh-century Spanish manuscripts of the Etymologiae under the name "Item sicut alibi inuentae sunt":90

Diple siue antilauida hac ∧. 91

This sign treatise holds a key to the *DNS* and I will therefore discuss it here in greater detail. It consists of symbols and names (but not descriptions) of twenty-one technical signs known from *Notae XXI* and the *Etymologiae*. They are listed in the exact same order as *Notae XXI* (rather than that of the *Etymologiae*, see appendix II). It therefore seems to indicate that a text similar to *Notae XXI* circulated in Spain in the tenth century. This Spanish sign treatise contains, nevertheless, several distinct readings of the names of the signs, which suggest that it is not a copy of *Notae XXI*, but rather represents an independent witness of the same textual tradition to which

⁸⁸ Schironi, "The ambiguity," pp. 89–90; also Leighton D. Reynolds and Nigel G. Wilson, *Scribes and Scholars: A Guide to Transmission of Greek and Latin Literature*, 2nd rev. ed. (Oxford, 1974), pp. 10–11; and Rudolf Pfeiffer, *History of Classical Scholarship* (Oxford, 1968), p. 218. The accuracy of the two *Anecdota* is confirmed by the papyri, in which the *diple* was employed in a variety of capacities, including to indicate quotations, but was not employed exclusively for this purpose; see McNamee, *Sigla*, pp. 8 and 16–17.

⁸⁹ McNamee, Sigla, p. 16; and Malcolm B. Parkes, Pause and Effect: An Introduction to the History of Punctuation in the West (Aldershot, 1992), p. 173.

⁹⁰ E. Steinová, "Notam superponere studui," pp. 65, 88 and 337.

⁹¹ I was also able to find a comparable passage in the *Anecdotum Cavense*, section "De oboelis et asteriscis platonicis, que nos ex Graeco transtulimus": "> Lambda graecum iacens purum, quam ipsa Graecitas a duabus lineis convenientibus diplen nominat, proprium dogma unius cuiusque philosophi, quod ipsi soli visum est, significat." See Reifferscheid, "Mitteilungen aus Handschriften," p. 131. This section was also reprinted and translated into German in Heinrich Dörrie, *Der hellenistische Rahmen des kaiserzeitlichen Platonismus*, Der Platonismus in der Antike 2 (Stuttgart, 1990), pp. 96–97.

Notae XXI belongs. Since we know that Isidore of Seville used a sign treatises consisting of twenty-one items and similar to Notae XXI for his Etymologiae, "Item sicut alibi inuentae sunt" should be probably connected with this original sign treatise used by Isidore. The DNS is affiliated with "Item sicut alibi inuentae sunt" on account of the presence of the sign name antilabda/antilauida. As noted earlier, it also contains items that were taken from a text similar to Notae XXI. It thus, seems that the compilers of DNS used a witness of the same textual tradition as Notae XXI which was probably a descendant of Isidore's prototype, which seems to have survived on the Iberian peninsula at least until the tenth century.

The impression that the compilers of the *DNS* used a text belonging to the same textual tradition as *Notae XXI*, but not identical with the sign treatise surviving in Paris lat. 7530 is supported by two additional observations. First, while it seems that these compilers were keen to include new material into their compilation when they encountered it, they failed to include in the *DNS* a number of passages found in the *Anecdoton Parisinum*, which may indicate that these were not present in the source they used. Like Isidore, they make no reference to *Notae simplices*, which suggests that they had at their disposal only a text similar to *Notae XXI*. Also, although the *DNS* includes alternate names for several signs, such as *antilabda* for *diple*, it makes no reference to the alternate names of signs which are recorded in the *Anecdoton Parisinum* but not in *De notis sententiarum*.⁹³ It seems that the source text used for the making of *DNS* did not contain these and similar elements.

Second, it is difficult to draw links between the compilers of the *DNS* and the *Anecdoton Parisinum*. Paris lat. 7530 and several affiliated manuscripts reflect local, southern Italian material that was either not available elsewhere or if it was, the Beneventan manuscripts represent a distinct branch of the textual transmission of this material. 94 Paris lat. 7530 itself could not have been used for the compilation of the

⁹² For example, it calls the fourth sign it lists (∞) paragraphus just like the Etymologiae, and not simplex ductus as Notae XXI. Similarly, it refers to another sign (*) as chi et ro PNΣIMON (sic) rather than only as chi et ro, as Notae XXI, or crisimon, as the Etymologiae. The alternative name antilauida for diple can also not derive from Notae XXI.

⁹³ Specifically, the alternate name *simplex ductus* for *paragraphus* and *chi et ro* for *crisimon* mentioned in footnote 22 could have been expected in the *DNS*.

⁹⁴ See Anselmo Lentini, *Ilderico e la sua Ars grammatica*, Miscellanea cassinese 39 (Montecassino, 1975), pp. 111–13; Virginia Brown, "Where Have All the Grammars Gone? The Survival of Grammatical Texts in Beneventan Script," in *Manuscripts and Tradition of Grammatical Texts from Antiquity to the Renaissance*, ed. Mario de Nonno (Montecassino, 2000), p. 399; Morelli, "Casanatense 1086," pp. 325–26; Holtz, "Le Parisinus Latinus," pp. 97, 147 and 149; and Jocelyn, "Varius' Thyestes," pp. 394–95. Ulrich Schindel has showed that two short anonymous texts preserved in Paris lat. 7530 similar to *Notae XXI* come from Vivarium, which further strengthens the impression that this manuscript contains locally transmitted material unknown elsewhere; see Ulrich Schindel,

DNS for reasons of chronology: it was produced after 779 at Monte Cassino and remained there during the ninth century, 95 while the oldest Carolingian manuscripts of the *Liber Glossarum* containing the *DNS* date to before 800.96

To conclude this section, one can note that the items in the *DNS* which contain the most changes with respect to the *Etymologiae*, the model of the *DNS*, are frequently the items in which Isidore's *De notis sententiarum* and *Notae XXI* differ most significantly. For example, *diple* and *cryphia* are absent from *Notae XXI* – they are two of the five signs that Isidore added to the original core of the twenty-one signs found in his source – and both show traces of significant reworking in the *DNS*. *Positura*, a third sign that was added by Isidore to *De notis sententiarum*, was left out altogether from the *DNS*. Similarly, the duplication of *phi et ro* and *ancora superior* seems to have been stimulated by the alternate descriptions of these items in the source that resembled *Notae XXI*.

Conclusion

The sign treatise incorporated into the *Liber Glossarum* cannot be considered an excerpt from *Etym*. 1.21. Apart from the *Etymologiae*, the compilers of this sign treatise consulted several other sources in order to enhance, correct, or expand the information supplied by the *Etymologiae*. One such additional source was a sign treatise comparable to the *Notae XXI*, an anonymous late antique compilation about technical signs preserved in a group of early medieval Italian manuscripts and known in its early medieval form as the *Anecdoton Parisinum*. The comparison with the *Anecdoton Parisinum* shows that several items in the *DNS* have doubtlessly come from this second major source of the *DNS*. Although only some items can be shown to have

[&]quot;Textkritisches zu lateinischen Figurenlehren (Anecdoton Parisinum, Cassiodor, Quintilian)," *Glotta* 52 (1974), 95–114; and U. Schindel, "Neues zur Überlieferungsgeschichte der Bibliothek des Klosters Vivarium," *International Journal of the Classical Tradition* 15:1 (2008), 1–15.

⁹⁵ Holtz, "Le Parisinus Latinus," pp. 106–7.

⁹⁶ It is still possible that locally preserved material would have been exported north of Alps after Monte Cassino came into contact with the Carolingian empire in the last decades of the eighth century; this would, however, imply a scenario in which the *DNS* was compiled in the Carolingian environment, as suggested by Lindsay and Bishop, rather than in a Visigothic setting, as argued by Goetz and Grondeux. I find the Carolingian option implausible, specifically given the relationship between the *DNS* and Spanish sign treatises. For the relationship between Monte Cassino and the Carolingian empire, see Elias A. Lowe, *The Beneventan Script: A History of the South Italian Minuscule* (Oxford, 1914), pp. 5–6.

⁹⁷ The two remaining added signs, *lemniscus* and *antigraphus cum puncto*, have a known source, the sign treatise of Epiphanius of Salamis; see Jocelyn, "Annotations of Valerius Probus II," p. 153, n. 90. As noted earlier, it may also have been available to the compilers of the *DNS* who used a source similar to Epiphanius (or Jerome) for the item *asteriscus*. This may explain why these two signs were treated differently.

been taken from this source, we should not rule out that it was consulted more extensively, particularly since this sign treatise and *De notis sententiarum* obviously contained a number of items which were either identical or expressed the same ideas in slightly different words. For these items it is not possible to tell whether they were taken from *De notis sententiarum* or from the source resembling *Notae XXI*, since there is no essential difference in wording or meaning between the two. Also, this second source seems to have contained variant readings with respect to the text of *Notae XXI* preserved in the *Anecdoton Parisinum* and the comparison against it is thus helpful only insofar as the source of the *DNS* resembled the version of the text present in the *Anecdoton Parisinum*.

De notis sententiarum was the leading source for the compilation of the DNS, which supplied the text of the DNS in cases where other sources agreed. If the other sources contained additional or contradictory information, the compilers used different strategies to reconcile discrepancies. They included an item multiple times from various sources (stacking), created a composite items by linking together elements from various sources and adjoining them with the aid of words such as scilicet, quoque and uel (merging), or they produced a new item with elements taken selectively from various sources (blending). The medieval compilers employed these strategies with a great degree of ingenuity and occasional creativity. It is even possible that they attempted to "correct" Isidore when they suspected him of an error.

While *De notis sententiarum* and a sign treatise similar to *Notae XXI* are the only two sources of the *DNS* which can be identified with certainty, references in *DNS* indicate that other sources must have been used as well. The item *asteriscus* contains material taken either from Jerome or Epiphanius of Salamis, and the item *anfibolen* (*cryphia*) may have been influenced by the reading of Servius's commentary on the *Aeneid*.

The use of material taken from a sign treatise similar to *Notae XXI* provides several important clues about the context of the compilation of the *DNS*. First, the version that the compilers had access to is connected with a tenth-century Spanish sign treatise on account of the presence of the alternate name *antilabda/antilauida* for *diple*. Second, this version also seems to have lacked several alternate names for signs that appear in the *Anecdoton Parisinum* copied in the late eighth century in southern Italy, which suggest that the *Anecdoton Parisinum* was not its source. In the light of the fact that besides eight-century Italy, a sign treatise characterized by twenty-one items can be attested in early seventh-century Spain, where it was used by Isidore of Seville, and seems to have survived on the Iberian peninsula until the tenth century, when it was copied into a family of the manuscripts of the same work as "Item sicut alibi inuentae sunt," it seems plausible to me that the sign treatise in the *Liber Glossarum* should be related to this Spanish branch of the transmission of the "twenty-one sign treatise." If Grondeux's thesis that the *Liber Glossarum* was compiled in Zaragoza with

recourse to the library of Isidore of Seville is correct, this could explain the origin of the mysterious source resembling *Notae XXI* used by the compilers of the *DNS*. In all likelihood, it was Isidore's prototype that was transferred to Zaragoza together with his library and used there in the process of the compilation of the *Liber Glossarum*.

Even after its compilation, the *DNS* remained a dynamic entity subjected to further reworking, as is indicated by **H M B**. These three witnesses, and to some extent also **G**, contain traces of rewriting that made the *DNS* resemble more closely Isidore's *De notis sententiarum*, for example the addition of the missing symbols of the technical signs and of the item *positura* from *Etym*. 1.21.9 and removal of the *ancora superior* that did not agree with the text of *De notis sententiarum* (I discuss other evidence for this assimilation of the *DNS* to the *Etymologiae* in appendix I). As **H M** and **G** are Carolingian manuscripts that contain the abridged version of the *Liber Glossarum*, this reworking probably reflects the development of the *Liber Glossarum* in the Carolingian environment.

In at least one case the compilation of the DNS might have had an effect on contemporary practice. The duplication of the phi et ro symbol, originally probably intended simply as juxtaposition of material from multiple sources in the DNS, might have led some users to think that several different phi et ro's with autonomous functions existed. Such new signs were not intentionally created by the compilers of the sign treatises, either antique or medieval, and cannot be considered inventions but rather the results of compilation. The users of the Liber Glossarum at some point no longer understood the intentions of its compilers. The compilers of DNS might have been in the same position with respect to their own sources, and the makers of their sources, particularly Isidore, conceivably misunderstood the sources they were using. The compilers of DNS possibly were able to discern Isidore's misinterpretation concerning diple and diple aperistiktos, but they adopted other Isidorian material at face value. Isidore, for example, claimed that apart from the asteriscus and the obelus, two additional signs, *lemniscus* and *antigraphus cum puncto*, were used for the *adnotatio* of the Scriptures, whereas neither Origen nor Jerome mentions any such signs nor are they to be found in the manuscripts of the Bible.98 The compilers of DNS did not question Isidore on this matter.

In light of this examination of the sign treatise incorporated into the *Liber Glossarum*, it is worth asking to what extent sign treatises which came into being in the early Middle Ages should be seen, even in the absence of their prototypes against

⁹⁸ The two signs appear for the first time in *De mensuris et ponderibus* of Epiphanius of Salamis, who was likely Isidore's source; see Frederick Field, *Origenis Hexaplorum quae supersunt sive veterum interpretum Graecorum in totum Vetus Testamentum fragmenta* I: *Prologomena. Genesis-Esther* (Oxford, 1875), pp. lvii–lx. Note also that Epiphanius calls one of the signs ὑπολημνίσκος and not *antigraphus* as Isidore. *Antigraphus* seems to be rather a type of a quotation mark; see Patrick McGurk, "Citation Marks in Early Latin Manuscripts," *Scriptorium* 15 (1961), 3–13, at p. 8.

which they could be measured, as dynamic medieval compilations rather than as static depositories of ancient lore. I wish to stress that the two perspectives are not incompatible. The question I am posing here is rather what degree of agency should be allocated to different persons, groups, and communities that handled the material in the course of its textual transmission. I do not think that the ancient and late antique compilers of sign treatises worked differently from the medieval compilers of the Liber Glossarum, though the latter seem to have been more meticulous in their search for sources they could use. Sign treatises, such as the one which can be found in the Liber Glossarum, were the result of a process of growth and in this respect they are texts without authors. Perhaps the only real authors that can be considered are the Hellenistic scholars who penned the oldest Κατὰ τῶν σημείων treatises and thus provided a substrate on which the future sign treatises could develop. However, these ancient authorities are of little relevance for the understanding of the formation of the individual sign treatises or this type of technical literature after the end of Classical Antiquity. Rather, texts such as the list of signs which is preserved in the Liber Glossarum should be defined in terms of the processes that brought them into being, the texts they refer to, and the contexts in which they emerged and were used. For these reasons, only further analysis of the innovations, rewriting, and compilation of the sign lists mentioned in this article and others can help us to better understand the complexity of transmission of ancient ideas in the medieval setting.



Appendix I: The Edition of Eight Sections on the *Notae* in the *Liber Glossarum*

This edition is provisional at best, as I did not have access to some of the most important manuscripts of the *Liber Glossarum*. My observations must be taken as preliminary and in need of further refinement pending a more thorough examination of the extant manuscript evidence.⁹⁹ This edition relies on the following six manuscripts:

- Paris, Bibliothèque nationale de France, MS lat. 11530, fols. 98v–99v; saec. VIII ex., Corbie. Together with MS lat. 11529, **P** is part of a two-volume version of the *Liber Glossarum*. It is one of the oldest exemplars of the *Liber Glossarum* together with Cambrai, Bibliothèque municipale, MS 693, both of which are written in ab-script typical for Corbie. 100
- V Vatican, Biblioteca Apostolica Vaticana, MS Pal. lat. 1773, fols. 210r–211r; saec. IX¹. V consists of two codicological units; fols. 1–21 possibly from Lotharingia, and fols. 22–349 from southern France; both codicological units were once present in the library of Lorsch. It contains the entire *Liber Glossarum*.
- **A** Milan, Biblioteca Ambrosiana, MS B 36 inf., fols. 214r–214v; saec. IX¹, according to Bischoff's *Katalog* possibly from the area of Milan. **A** was in Milan by the fourteenth century.¹⁰¹ It contains the entire *Liber Glossarum*.
- H London, British Library, MS Harley 2735, fols. 87v–89r; saec. IX¹, Fleury. H contains an abridged version of the *Liber Glossarum* with notes and additions made by the Carolingian scholar Heiric of Auxerre (ca. 841–ca. 876); it also contains some minor works associated with Heiric on fols. 206v–208r. In the sixteenth century it was present in the library of Pierre Daniel. 102
- M Munich, Bayerische Staatsbibliothek, MS clm 14429, fols. 122r–122v; saec. IX².
 M was copied at an unknown location by an Irishman who was working on two other manuscripts now preserved in the Bayerische Staatsbibliothek.¹⁰³ Bischoff

⁹⁹ The edition provided here should be supplemented by the digital edition of Anne Grondeux, which is based on four manuscripts, **P** V (in Grondeux's edition L) **A** and Tours, Bibliothèque municipale, MS 850 (in Grondeux's edition T); see items NO245-245g in the edition.

¹⁰⁰ Bishop, "The prototype of Liber glossarum," pp. 69–71.

¹⁰¹ Bernhard Bischoff, Katalog der festländischen Handschriften des neunten Jahrhunderts (mit Ausnahme der wisigotischen), Teil 2: Laon-Padenborn (Wiesbaden, 2004), pp. 150–51.

¹⁰² David Ganz, "Liber Glossarum avec notes de la main d'Heiric d'Auxerre," in *Intellectuels et artistes dans l'Europe carolingienne, IX^e–XI^e siècles* (Auxerre, 1990), pp. 42–44, n. 15.

¹⁰³ These are manuscripts clm 14423 and clm 14459; see Dáibhí Ó Cróinín, "An Eriugenian Miscellany in a Munich Manuscript?," *Peritia* 16 (2002), 242–49.

- localized it to Bavaria,¹⁰⁴ but according to Ó Cróinín some of the materials preserved in **M** resemble those copied by Martin of Laon and may perhaps also be linked to the circle of John the Scot.¹⁰⁵ **M** contains an abridged version of the *Liber Glossarum*. Hermann Kettner used **M** for his transcript of the sign treatise in the *Liber Glossarum*.
- G St. Gallen, Stiftsbibliothek, MS 905, pp. 630–32; saec. X in. The glossary used to be known as the *Glossae Salomonis*; but is, in fact, an abridged version of the *Liber Glossarum* which from the twelfth century onward was associated with Solomon III of Konstanz, abbot of St. Gallen (860–919), and is not related to the genuine Old High German *Glossae Salomonis*. ¹⁰⁶ G possibly comes from St. Gallen, but it is not recorded in the oldest library catalogues of the monastery. Entries for Aa–Ab and Y–Z are missing.

In addition to these, I also used a transcript of the *Liber Glossarum* made by Gottfried Bessel:

B Gottfried Bessel, Chronicon Gotwicense, seu Annales liberi et exempti monasterii Godwicensis (Tegernsee, 1732), pp. 24–27. Bessel writes about the codex from which his material was taken: "Alias adhuc reperimus in codicibus notas, quas nobis adhibet codex aliquis noster membranaceus saeculi circiter XII. in Bibliotheca nostra Gottvvicensi in folio, ex quo omnia huc transcribere visum est: ita autem dictum fragmentum huius codicis miscellanea alia continentis habet" (p. 24). Some sections are missing or abbreviated in his transcript. Since the same sections are abbreviated or missing also in M, Bessel's source manuscript is likely to have had the same abbreviations or omissions.

In the second of my *apparatus critici*, I am also considering significant variant readings with respect to the text of the *Etymologiae* as edited by Lindsay.

Etym. W.M. Lindsay, *Isidori Hispalensis Episcopi Etymologiarum sive Originum libri XX* (Oxford, 1911). Variant readings that are shared only with a particular family of the *Etymologiae* are given in this apparatus in accordance with Lindsay's sigla (p. xvi), e.g. γ refers to the Spanish family of the manuscripts of the *Etymologiae*, and **T** to manuscript Madrid, Biblioteca Nacional, MS Vitr. 14.3.

A notable divide is visible between the manuscript cluster **PVAG** and the manuscript cluster **HMB**. **HMB** a) contains the item *positura*, which is missing in **PVAG**; b) omits the section *De notis accentuum*; c) contains the symbols for the signs

¹⁰⁴ Bischoff, *Katalog*, 2:256–57.

¹⁰⁵ Ó Cróinín, "An Eriugenian Miscellany," pp. 244–47.

¹⁰⁶ Birgit Meineke, "Die Glossae Salomonis," in *Die althochdeutsche und altsächsische Glossographie: Ein Handbuch*, 2 vols., ed. R. Bergmann and S. Stricker (Berlin, 2009), 1:829–30.

in *De notis sententiarum*; and d) contains numerous readings not present in **PVAG**, but in agreement with the majority readings in the *Etymologiae*. Some examples of the latter include:

- 5 historiis **HMB Etym.** | storiis **PVAG**
- 9 per eam notam **HMB Etym.** | pro eam notam **PG** | pro eam semper **V** a.c. **A** | per eam semper **V** p.c.
- 9 uidebantur HMB | uidebatur PVAG | uidentur Etym.
- 30 Antisimma ponitur **HMB Etym.** Antisma ponitur **PVAG**
- 32 Antisimma cum puncto HMB Etym. | Antisma cum puncto PVAG
- 96 iuridicis **HB Etym.** | iuridici **PVAG** | iuridicii **M**
- 102 duo KK kappa iuncta **MB** | duo kappa iuncta KK **PVAG** | duo KK iuncta **Etym.** β | duo kappa iuncta **Etym.** α γ

Since two of the manuscripts from this cluster, **H** and **M**, were copied in the ninth century, it is clear that already at an early date a reworking took place which affected *DNS*, probably a "correction" against the *Etymologiae*. Both **H** and **M** represent the abridged version of the *Liber Glossarum*. **G**, however, another abridged version of the *Liber Glossarum*, does not contain the same elements and agrees with **PVA**. Unfortunately, I was not able to identify the manuscript used by Bessel, but it seems that it was of the same abridged type as **H** and **M**.

M and **B** contain a more abbreviated and contaminated version of the insert than **H** or other manuscripts I examined. Both **M** and **B** lack a part of *De notis vulgaribus* and of *De notis militaribus*, significantly abbreviate *De notis litterarum* and omit *De notis digitorum*. In the *DNS*, they omit the reference to Leogarus of Syracuse in the item *diple*, which is also lacking in the *Etymologiae*, and do not contain the definition of *ancora superior* taken from *Notae XXI*. Common readings not present in other manuscripts also tie these two manuscripts closely together. They represent a further revision of the insert containing *DNS*, and thus perhaps the whole *Liber Glossarum*. Given the age of **M**, by the second half of the ninth century this second revised version developed from the abridged *Liber Glossarum* as represented also by **H**. Some readings peculiar to this cluster are:

- 2 ac MB Etym. | hac PVAHG
- 12 falsitate notata **M** p.c. **B** | falsitata **PVAH**| falsitate **G**
- 21 hac nota MB V p.c. | haec notam PHG | haec notum V a.c. A | hanc Etym.
- 23–24 connexu **MB Etym.** | quo nexu **PHG** | quonexa **V** a.c. **A**
- 24 et regiones a regionibus **M** p.c. **B Etym.**^{CK} | et regionibus **PVAHG Etym.**^{BT}
- 30–31 Sic et in antiquis auctoribus **M** p.c. **B Etym**. | Sicut et in antiquis auctoribus **B** | Sic et antiquis a ueteribus **P** | Sic et antiquis a uetoribus **V** a.c. **A** | Sicut ab antiquis auetoribus **V** p.c. | Sic et antiquis a ueterioribus **H** | Sic et antiquis auctoribus **G**

- 34–35 Hanc primus ... Olympi a caelo **PVAHG** | 0 **MB Etym.**
- 35–37 Hanc scriptores nostri apponunt in libris ecclesiasticorum uirorum ... scripturarum **MB Etym.** | Hanc quoque nostri ecclesiastici uiri utuntur in codicibus ... scripturarum **PVAHG**
- 37 confirmationem V p.c. MB | confirmatione PV a.c. AHG | 0 Etym.
- 40 punctis MB Etym. | conpunctus PV a.c. AG | punctus H
- 41 apponebant V p.c. MB Etym. ck | opponebant PV a.c. AHG Etym.
- 45 antistrophus MB Etym. | antistrophos PVAHG
- 57 ponitur **MB** | apponitur **PVAHG** | 0 **Etym.**
- 65 nota quae MB Etym. KL | nota PVAHG Etym. ABCT
- 67 paginarum MB Etym. | paginum PVAHG | paginas V p.c.
- 105 multos per haec ignorantes **MB** | multos per haec callidi ingenio ignorantes **PVAGH Etym.**

The **PVAHG** cluster often contains readings that do not occur at all in the *Etymologiae* or arose as corruptions of the text of Isidore, and the **MB** cluster often corrects these passages in accordance with the *Etymologiae*. In a few instances all manuscripts used for this edition agree on a single reading that corresponds to the reading of a particular family of the manuscripts of the *Etymologiae*:

- 15 0 **PVAHGMB** | 0 **Etym.** $\alpha\beta$ | Falsitate notatum est **Etym.** γ
- 38 primus PVAHGMB | primus Etym. | prius Etym. KL
- 54 obolantur **PVAHGMB** | obolantur **Etym.C**¹**T** | obolatur **Etym.**
- 89 stantes **PVAGHMB** |stantes **Etym. BT** | astantes **Etym. A** | adstantes **Etym. CK**
- 90 commentatus **P** p.c. **VAHG** p.c. **MB** | commentatus **Etym. ABCK** | commendatus **P** a.c. **G** a.c. | commentus **Etym. T**
- 99 consultus PVAGHM | consultus Etym. ACT | consultum B Etym.
- 101 A uerso **PVAHGM** | A uerso **Etym.** | P auerso **Etym.B**
- 107 demonstrent **PVAHGMB** | demonstrent **Etym.BCT** | demonstrarent **Etym.A** β
- 114 in pueritiam **PVAHGMB** | in pueritiam **Etym.T** | inperitiam **Etym.BKL** | inpuritiam **Etym.UC**¹
- 122 incidunt **PVAHGMB** | incidunt **Etym.ABC** | accidunt **Etym.**
- 132 alii nutat **PVAHMB** | alium mutat G | alii nutat **Etym.V** 1 | alii adnotat **Etym. \alpha** | alium adnotat **Etym.\beta** | alii adnutat **Etym.TU**

The correlation is not always strong or uniform; nevertheless, manuscripts from the Spanish family γ , especially **T** (Madrid, Biblioteca Nacional, MS Vitr. 14.3; saec. IX, southern Spain), share readings with *DNS* in several noteworthy cases. These common readings suggest that the compilers of the *DNS* may have worked from a

Spanish text of the *Etymologiae*, which is consistent with the hypothesis that the core of the *Liber Glossarum* originated in Visigothic Spain. ¹⁰⁷

In my edition, I silently expand all the abbreviations. I retain all word forms in the edition as they appear in the six manuscripts used, even if these are obvious grammatical errors or corruptions; this allows for comparison and contrast with the Etymologiae and with other sources used in the process of compilation. As for the orthography, as long as all six manuscripts contain the same orthographic variant (e.g. Siracusanus in lines 34 and 38 or Efesius in line 41), I retain it in the edition. However, if the six manuscripts vary in the orthography of a particular word, I standardize it in agreement with Lindsay's edition of the Etymologiae (e.g. Olympi in lines 35 and 39 or strophe in line 45). Specifically, since the manuscripts are inconsistent in the use of orthographic variants -e, -ae, and -ę, I uniformly use -ae just as the edition of the Etymologiae. I also maintain the orthographic convention u for u and v and V for U and V. I follow modern rather than medieval punctuation and sentence division in order to make the text clearer for modern users. The capitalization of words and sentences in the edition also follows modern standards rather than the manuscripts. The format of this edition does not correspond to the format of the text in any of the manuscripts; in the majority of the manuscripts, for example, some of the items in the DNS are not set apart as they are in this edition. I chose my format for the convenience of the readers. For the same reason, I decided to include, in round brackets, the respective signs to which the DNS refers, even though these can be found only in HMB. As I mentioned above, the unrevised manuscript cluster PVAG contains zeta signs in their stead. In P, the oldest manuscript I examined, these zeta signs are also attached to items in sections other than the DNS. I chose not to reproduce them here. Passages inserted in the edition in square brackets are to be found only in some, but not in all six manuscripts used for the edition. Specifically, they distinguish cluster PVAG from HMB. I chose not to bracket passages which are omitted from MB only, but their absence from these two witnesses is clearly indicated in the first apparatus.

¹⁰⁷ Other scholars have also suggested that the text version of the *Etymologiae* used for the compilation of the *Liber Glossarum* belonged to the Spanish family; see Anne Grondeux, "Note sur la présence de l'Hypomnesticon," p. 71. More on the subject is going to be published in the forthcoming proceedings of the conference organized in May 2016 by the project of Anne Grondeux.

Appendix II: Order and Names of Items in Different Latin Sign Lists

The order of items in this table corresponds to the sequence numbers given above. I chose to represent both the full (here \mathbf{P}) and the abridged (here \mathbf{M}) form of the *DNS* because of some differences in order and naming.

no.	Anecdoton	Anecdoton	Isidore,	Liber	Liber	Item sicut alibi
	Parisinum A	Parisinum B	Etymologiae	Glossarum	Glossarum	inuentae sunt
			1.21	(P)	(M)	
1	Obelus	Obelus	Asteriscus	Asteriscus	Asteriscus	Obolus
2	Asteriscus	Asteriscus	Obolus	Obolos	Obolus	Asteriscus
3	Asteriscus	Asteriscus	Obolus	Obolus	Obolus	Asteriscus
	cum obelo	cum obelo	superne	superne	superne	cum obolo
			adpunctus	adpuctus	adpunctum	
4	Simplex	Simplex	Lemniscus	Limniscus	Limniscus	Paragrafus
	ductus	ductus				
5	Diple	Diplen	Antigraphus	Antigrafus	Antigrafus	Diple sive
		aperistikton				antilavida
6	Diple	Diple	Asteriscus	Asteriscus	Asteriscus	Diple
	periestigmene	periestigmene	cum obolo	cum hobolo	cum obelo	periestigmene
7	Antisigma	Antisigma	Paragraphus	Paragrafos	Paragrafos	Antisigma
8	Antisigma	Antisigma	Positura	Anfibolen	Possiturae	Antisigma
	cum puncto	cum puncto				cum puncto
9	Coronis	Coronis	Cryphia	Antisma	Anfibolen,	Choronis
					cryphia	
10	Diple	Ceraunium	Antisimma	Antisma	Antisimma	Diplo
	obelismene			cum puncto		obolismene
11	Aversa	Aversa	Antisimma	Diple,	Antisimma	Aversa
	obelismene	obelismene	cum puncto	antilabda	cum puncto	obolismene
12	Ceraunion	Obelus cum	Diple	Diple	Dyple,	Ceraunium
		puncto		prosticon	antilabda	
13	Obelus	Diple	Diple	Diple	Diple	Obolus
	adpunctus	obelismene	peristicon	prestigmen	prosticon	superne
						adpunctus
14	Obelus cum	Aversa	Diple	Diple	Diple	Obolus cum
	aversa		peristigmene	obolismene	praestigmen	aversa
15	Diple	Diple superne	Diple —	Aversa	Diple	Diple superne
	superobelata	obelata	obolismene	obolismene	obolismene	obolata

16	Recta et	Recta et	Aversa	Aversa cum	Aversa	Recta et
	aversa	aversa	obolismene	obolo	obolismene	aversa
	superne	superne				superne
	obelata	obelatae				obolata
17	Chi et ro	Chi et ro	Adversa cum	Diple	Aversa cum	Chi et ro
			obolo	superne	obelo	ΡΝΣΙΜΟΝ
				obolata		(sic)
18	Phi et ro (I)	Phi et ro (I)	Diple	Recta et	Diple	Phi et ro
			superne	versa	superne	
			obolata	superne	obolata	
				obolata		
19	Anchora	Anchora	Diple recta et	Ceraunium	Recta et	Anchora
	superior (I)	superior (I)	adversa		aversa	superior
	1 ()	1	superne		superne	1
			obolata		obolata	
20	Anchora	Anchora	Ceraunium	Crisimon	Ceraunius	Anchora
	inferior	inferior				inferior
21	Alogus		C(h)risimon	Pietro (I)	Crisomon	Alagos
22			Phi et Ro	Pietro (II)	Pietro (I)	
			(II)	()		
23			Anchora	Ancora	Pietro (II)	
			superior (II)	superior (I)	()	
24			Anchora	Ancora	Ancora	
[~ '			inferior	superior	superior (II)	
				(II)	superior (II)	
25			Coronis	Ancora	Ancora	
23			Coronis	inferior	inferior	
26			Alagus	Cronis	Cronis	
26			Alogus			
27				Alogus	Alogus	

DE NOTIS SENTENTIARVM.

Nota est figura propria in litterae modum posita ad demonstrandam unamquamque uerbi sententiarumque hac uersuum rationem. Quaedam autem scripturarum notae apud celeberrimos auctores fuerunt, quasque antiqui ad 5 distinctionem scripturarum carminibus et storiis apposuerunt. Notae autem uersibus adponuntur numero uiginti et sex, quae sunt nominibus infra scriptis.

- * Asteriscum Arisfanes repperit. Haec autem aposita est ab Origine ab his quae a Septuaginta omissa sunt et in Hebreo habentur, scilicet ut inlucescerent pro eam notam quae deesse uidebatur. Stella enim aster dicitur Graeco sermone 10 a quo asteriscus est diriuatus.
- Obolos id est uirgula iacens adponitur in uerbis uel sententiis superflue iteratis siue in his locis ubi lectio aliqua falsitata est, ut quasi quaedam sagitta iugulet superuacua atque falsa confodiat. Sagitta enim Graece obolus dicitur.
- → Obolus superne adpunctus ponitur in hisdem de quibus dubitatur utrum
 15 tolli debeant nec apponi.
- \div Limniscus id est uirgula inter geminos punctos iacens opponitur in his locis quae sacrae scripturae interpretes eodem sensu sed diuersis sermonibus transtulerunt.
- V Antigrafus autem cum puncto apponitur ubi in translationibus diuersus **20** sensus habetur.

² litterae modum | modum litterae G | demonstrandam | demonstrandum V A 3 hac ac M B 5 distinctionem] distinctione PVA | storiis] historiis HMB autem] autem quae B 6 uiginti ... sex] XX et sex $\mathbf{G} \mathbf{B}$, XX et VI \mathbf{H} | infra scriptis] \mathbf{B} om. 7 Asteriscum] Asteriscus \mathbf{V} p.c., Astericus \mathbf{G} | ab^2 ... 8 quae] ab his quia P, ab his qui G, his quae M B 8 Septuaginta] Septuginta M | ut] et G 9 pro] per V p.c., H M B notam] semper V A | uidebatur] uidebantur H M B Stella] Stellam P V a.c. A a.c. | Graeco] in G scriba correxit -o in -e dum scripsit 10 a quo] P p.c. 11 Obolos] Obelos V p.c. H p.c., Obolus G M, Obelus B 12 falsitata] falstitate G, falsitate notata M p.c. B | quaedam] quadam A 13 confodiat] confodiar P G, confodiet **V** a.c., confodiat, ne apponantur **B** Sagitta [Sagittata PM a.c. | Sagitta ... 15 apponi [desinit in B] 14 Obolus] Obulus A | superne] suprone V a.c. | adpunctus] adpuctus P A a.c., obolus obulus **V** adpuctos \mathbf{V} p.c., adpunctum \mathbf{M} [hisdem] isdem $\hat{\mathbf{A}}$, his $\hat{\mathbf{V}}$ $\hat{p}.c.$ \mathbf{M} [dubitatur $\hat{\mathbf{G}}$, putatur scribascripserat in **H** deleveratque, deinde dubitatur scripsit utrum] **P** eras., **G** om. | utrum ... 15 apponi] **M** in ras. 15 nec an V p.c., necne M 16 Limniscus Limnicus H G id est est B geminos germinos P V A punctos] punctus **A** a.c. **G**, puctos **P V** a.c. | opponitur] apponitur **H B** 17 sed] sed et **B** | diuersis] diuersos **P** a.c. **19** Antigrafus Antigrauus **G** | puncto puncto put bi ubi ubi **P** V a.c. | translationibus traslationibus A

³ hac] ac **Etym.** 5 distinctionem] distinctiones **K** | storiis] historiis **Etym.** 7 ab² ... 8 quae] in his quae **Etym.** 8 inlucescerent] inlucescant **Etym.** 9 uidebatur] uidentur **Etym.** 11 Obolos] Obolus **Etym.** 12 falsitata] falsitate notata **Etym.** 15 nec] necne **Etym.** | apponi] in γ sequitur Falsitate notatum est 16 Limniscus] Lemniscus **Etym.**

- ※── Asteriscus cum obolo. Hac nota proprie Aristarchus utebatur in his uersibus qui non suo loco positi erant.
- Paragraphos inter uersus ponitur ad separandas res a rebus quae in quo nexu concurrunt quemadmodum in catalago loca a locis et regionibus, in agone **25** praemia a praemiis, certamina a diuersis certaminibus separentur.
- [Positura est figura paragrafo contraria, et ideo sic formata, quia sicut illa principia notat, ita ista fines a principiis separat.]
- Anfibolen circuli pars inferior cum puncto. Haec nota ponitur in his locis ubi quaestio dubia uel obscura aperiri uel solui non potuit.
- **30** O Antisma ponitur ad eos uersus quorum ordo permutandus est. Sic et antiquis auctoribus positum inuenitur.
- 3 Antisma cum puncto ponitur in his locis ubi in eodem sensu duplicis uersus sunt et dubitatur qui potius eligendus sit.

²¹ Asteriscus Astericus P | obolo hobolo P, obelo H p.c. B | Hac nota haec notam P G H, haec notum V a.c. A | Aristarchus | Aristurcus V a.c., Asteriscus G 23 Paragraphos Paragrafus V A B, Paragrofos G | quae | quia V A, qui B | quo ... 24 nexu | quo nexa V a.c. A, conexa **V** *p.c.*, connexu **M B** 24 catalago catulago **V** *a.c.* **A**, catelogo **M**, catalogo **H B** | loca locos **B** | et regionibus et regiones a regionibus **M** p.c. **B** 25 a² ... certaminibus aduersis cartaminibus A, a certaminibus diuersis B | separentur B **26** Positura ... 27 separat H mg. add., Possiturae figura paragrapho contraria et ideo sic formata, quia sicut illa principia nota, ita ista fines a principiis separatur **M** mg. add. **28** Anfibolen Anfibolem **A**, uel cryfia M add. sup. lin. | puncto] punctu H 29 uel solui G om. potuit in B sequitur Positurae figura paragrapho contraria et idem sic formata, quia sicut illa principia a nota, ita ista fines a principiis separantur, in H sequitur in marg. Crifia circuli pars inferior cum punctu ponitur in his locis ubi quaestio dura et obscura aperiri uel solui non potuit Antisima H, Antisimma M p.c. B | uersus] uersos P | permutandus] permotandus M, permittendus **B** Sic ... 31 auctoribus Sic et antiquis a ueteribus **P**, Sic et antiquis a uetoribus V a.c. A, Sicut ab antiquis auetoribus V p.c., Sic et antiquis a ueterioribus H, Sic et in antiquis auctoribus **M** p.c., Sicut et in antiquis auctoribus **B** 32 Antisma Antisima **H**, Antisimma **M** p.c. B | cum puncto | compuncto V a.c. M a.c.? sensu | sensus G | duplicis | duplices V p.c. M B, dublicis A, duplis G 33 uersus uersas A V a.c. | qui quis M B | potius potuis A a.c.

²¹ Hac nota] hanc Etym. 23 inter uersus] desinit in Etym. | quo ... 24 nexu] connexu Etym. 24 catalago] catalogo Etym. | et regionibus] et regiones a regionibus C K 26 Positura ... 27 separat] adest Etym. | illa] ille Etym., illa T 28 Anfibolen] Cryphia Etym. 29 dubia uel] dura et Etym. 30 Antisma] Antisimma Etym. | Sic ... 31 auctoribus] Sic et in antiquis auctoribus Etym. 32 Antisma] Antisimma Etym. | duplicis] duplices Etym.

- > Diple siue antilabda. Hanc primus Leogaras Siracusanus posuit **35** Homericis uersibus ad separationem Olympi a caelo. Hanc quoque nostri eclesiastici uiri utuntur in codicibus ad designanda testimonia diuinarum Scripturarum quae ob dictorum confirmatione exempli causa interponuntur.
- > Diple persticon. Hanc primus Leogarus Siracusanus posuit Homericis uersibus ad separationem Olympi a caelo.
- **40** ≯ Diple prestigmen id est cum geminis punctis. Hanc antiqui in his opponebant quae Zenodotus Efesius non recte adiecerat aut detraxerat aut permutauerat. In his et nostri ea usi sunt.
- > Diple obolismene interponitur ad separandos in comediis uel tragoediis periodos.
- **45** Auersa obolismene, quotiens strophe et antistrophos infertur.

³⁴ Diple] Duple G | siue] uel G | Hanc ... 35 caelo] desinit in M B | Leogaras] Leogarus P G p.c., Leigarus G a.c. 35 Hanc ... 37 Scripturarum] Hanc scriptores nostri apponunt in libris ecclesiasticorum uirorum ad separanda uel ad demonstranda testimonia diuinarum scripturarum M in ras. B | nostri] nostris A a.c. 36 eclesiastici] ecelesiastici A, ecclesiasti G | codicibus] quo dibus A a.c. ad designanda] ad designan A a.c., ad de signa A p.c. 37 confirmatione] confirmationem V p.c. M B 38 Diple] Diplex P a.c., Deple V p.c. A | Diple ... 39 caelo] desinit in G | persticon] prosticon P M, pesticon B | Hanc] B om. Leogarus] Leogaius V A, Leogaras H B | Homericis] Homerici P p.c. 40 prestigmen] grestimen G, prestimen H, perstigmine B | geminis] genuinis B punctis] conpunctus P V a.c. A G, punctus H 41 opponebant] apponebant V p.c. M B | aut¹] uel G 42 permutauerat] permotauerat M | et nostri] enim si V A | ea usi] euasi P H M, etiasi G 43 obolismene] obilismene G, obelis mere B | ad] a A a.c. | separandos] separandas B | comediis] conmendis A a.c. | tragoediis] trogoediis A 44 periodos] periodis A a.c. 45 obolismene] obelis mere B quotiens] interponitur quotiens B | antistrophos] antistrophus M B

³⁵ Hanc ... 37 interponuntur] Hanc scriptores nostri adponunt in libris ecclesiasticorum uirorum ad separanda uel ad demonstranda testimonia sanctarum scripturarum K L^1 , Hanc ... separanda uel demonstranda ... scripturarum B C T 38 persticon] peristicon T, persticon B^1 , plecticon C, persticon ex praesticon K L, peristincon A [primus] prius K^1 L [Leogarus] Leogoras Etym. 40 prestigmen] peristigmene Etym., perstigmen T, perstrigimene A 41 opponebant] apponebant C C C antistrophos] antistrophus Etym.

- ← Auersa cum obolo ad ea ponitur quae ad aliquid respiciunt ut: Nosne
 tibi Frigiae res euertere fundo conamus? nos? animis heros qui Troas a uiuis
 obiecit?
- > Diple superne obolata ponitur ad conditiones locorum ac temporum 50 personarumque mutatas.
- Recta et auersa superne obolata ponitur finita loco suo monade significantes similem sequentem quoque esse.
- ** Ceraunium ponitur quotiens multi uersus inprobantur nec per singulos obolantur. Ceraunium enim fulmen dicitur.
- 55 X Crisimon. Haec sola ex uoluntate uniuscuiusque ad aliquid notandum ponitur.
- B Pietro. Haec apponitur quotiens uel emendatio uel sensus uersuum sollicitius est inspiciendus.
 - Pietro id est frontis ubi aliquid obscuritatis est ob sollicitudinem ponitur.
- **60** [Ancora superior ponitur ad aliquid praecipue dictum.]
 - Ancora superior ponitur ubi aliqua res magna omnino est.
- $\mathring{\mathbb{J}}$ Ancora inferior ubi aliquid uilissime uel inconuenientius denuntiatum est.
 - Cronis tantum in fine libri apud omnes positum inuenitur.

⁴⁶ Nosne ... 48 obiecit] Virg. Aen. 10, 88

⁴⁶ Auersa] Aduersa V A | Auersa ... obolo] Auersarum obelo B | ut ... 48 obiecit] desinit in B | Nosne ... 48 obiecit] Nosne tibi Frigieris P G M a.c., Nos nec ibi A, conamur B, conaminos G 49 obolata] obolan V A | ac] hac P V a.c. A a.c. 50 mutatas] motatas M, mutatus V A 51 Recta ... auersa] Recta et uersa P G, Recta et aduersa H M | ponitur] sonitur A a.c. 52 significantes] significante M p.c. B, significanter A | quoque] M p.c. 53 Ceraunium] Ceraunum G M | per] pro V a.c. A a.c. 54 Ceraunium] Ceraunius G M | fulmen] flumina V a.c. A, flumen V p.c. 55 Crisimon] Crisomon G M, Crismon B 57 Pietro] Peitro B Haec ... 58 inspiciendus] hoc ponitur quotiens emendatio uel sensus uersuum sollicitus inspiciendus B | apponitur] ponitur M B | emendatio] emedatio P V a.c. 58 sollicitius] sollicitus G B 59 Pietro] Peitro B | frontis] fortis V A B | ob] P G M a.c. om. 60 Ancora ... dictum] desinit in G M B | ad aliquid] ubi aliqua A a.c. praecipue] praecipuum V p.c. A, praecipum V a.c. 62 inferior] superior V A 63 est] expunctum in P 64 Cronis] Cronis nota B

⁴⁶ Auersa] Aduersa K L¹ T | Nosne ... 48 obiecit] Nosne tibi Phrygiae res uertere fundo conamur? nos? An miseros qui Troas Achiuis obiecit? Etym., tibi fluxas frigeres uertere B, animiseros T 51 Recta ... obolata] Diple recta et aduersa superne obolata Etym., auersa A B C T 52 significantes] significatque Etym., significante A 54 obolantur] obolatur Etym., obolantur C1 T 59 Pietro] Phi et Ro Etym. 64 Cronis] Coronis nota Etym.

65 Alogus nota ad mendas adhibetur.

Fiunt et aliae notulae librorum pro agnoscendis his quae per extremitates paginum exponuntur ut, ubi lector in liminare huiusmodi signum inuenerit ad textum recurrens eiusdem sermonis uel uersiculi sciat esse expositionem, cuius similem superiacentem notam inuenerit.

70 DE NOTIS DISTINCTIONVM

Item in sententiis pronuntiandis quasdam distinctionum particulas oratores utuntur. Has Graeci thesis uocant, grammatici posituras. Quarum diuersitas punctis diuerso loco positis demonstratur.

Vbi enim in initio pronuntiationis necdum plena pars sensui est, et tamen 75 respirare oportet fit comma, id est particula sensus, punctusque ad mediam litteram ponitur et uocatur media distinctio ut: Arma uirumque cano.

Vbi autem in sequentibus iam sententia sensum praestat sed adhuc aliquid superest de sententiae plenitudine fit cola, imamque litteram puncto notamus et uocatur subdistinctio.

80 Vbi uero iam per gradus pronuntiando plenam sententiae clausulam facimus, fit periodus punctumque ad caput litterae ponimus et uocatur distinctio.

⁷⁶ Arma ... cano] Virg. Aen. 1, 1

⁶⁵ Alogus ... adhibetur Alogus uel Alontus nota, quae ad emendandas adhibetur **B** | nota nota quae MB | mendas] mensas G | adhibetur] adibetur P p.c. eras. V 66 aliae] alias A | notulae] notae B | librorum] librum P G | per] pro V A G extremitates] exterminatas V A 67 paginum] paginas V p.c., paginarum M B ut] et B | liminare] liminari A, limenare M, illuminari B | huiusmodi] A p.c. 68 uel] B om. | uersiculi sciat] uersiculis ciat V a.c. A a.c. **69** superiacentem sui proiacem **V** *a.c.* **A**, sui periacem **P H**, sui periacentem **G M** *a.c.* | notam notum V A 70 DE ... DISTINCTIONVM] G om. | DISTINCTIONVM] distinctionuum A a.c. 71 sententiis] sentinis A p.c., sentiis A a.c. | pronuntiandis] M p.c. quasdam] quasidum V **A**, quibusdam **B** 72 grammatici] gramatisi **A** a.c. Quarum ... 73 positis] **A** add. in marg. inf. 73 diuerso ... positis] diuerso positis H, diuerso loco B 74 in initio] initio G M B | sensui] sensus V p.c. B, sensiui A et tamen] e tamen P, etumen V a.c. A 75 comma] conmo P V a.c. A a.c., commo H | mediam ... 76 litteram] media littera P A H 77 Vbi ... 78 notamus] Vbi a sequenti sententia iam sensum praestat, sed ubi adhuc aliquid superest sententiae plenitudini, fit cola, unamque litteram puncto notamus **B** [80 per] pro **V** a.c. | clausulam] clausolam **P A** p.c., clausolum V a.c. A a.c., clausulum V p.c. 81 periodus] perhiodos M | punctumque] ponecumque **A**, punecumque **P V** a.c. ponimus **V** p.c

⁶⁵ nota] nota quae K L 67 paginum] paginarum Etym. 72 grammatici] Latini Etym. 74 in initio] initio Etym., in initio K 75 mediam] imam Etym. 76 media distinctio] subdistinctio Etym. 78 imamque] mediamque Etym.

[DE NOTIS ACCENTVVM APVD GRAMMATICOS

Acutus accentus nota per oblique ascendens in dexteram partem.

Grauis nota a summo in dexteram partem descendens.

85 Circumflexus nota de acuto et graui facta.]

DE NOTIS VVLGARIBVS

Vulgares notas Ennius primus mille et centum inuenit. Notarum usus erat ut quidquid pro contentione aut in iudiciis diceretur librarii scriberent conplures simul stantes diuersis inter se partibus quod quisque uerba et quo ordine 90 exciperet. Romae prius Tullius Tiro Ciceronis libertus commentatus est notas, sed tantum praepositionum, post eum Visanius, Filargius et Aquila libertus Maecenatis alius alias addiderunt. Deinde Seneca contractu omnium digestoque et aucto numero, opus efficit in quinque milia. Notae autem dictae eo, quod uerba uel syllabas praefixis caracteribus notent et ad notitiam legentium 95 reuocent, quas qui didicerunt proprie iam notarii appellantur.

DE NOTIS IVRIDICI

Quaedam autem litterae in libris iuris uerborum suorum notae sunt, quo scriptio celeris breuiorque fiat. Scribebatur enim uerbi gratia per B et F bonum factum, per S et C senatus consultus, per R et P respublica, per P et R populus

⁸³ per] pro V a.c. A | ascendens] iacens G | dexteram partem] dextera parte P A G 84 in ... partem] in partem dexteram G 85 et] ex A 86 DE ... VVLGARIBVS] G om. | DE ... 93 milia] desinit in MB | VVLGARIBVS] VVLGALIBVS P V a.c. 87 Ennius] Ennias V a.c. A 88 quidquid] quicquid A G | iudiciis | iudiis V A | librarii | librariis P V A | scriberent | scribent A 89 simul simus P a.c. | uerba] uerbo V p.c. | quo] V A om. **90** prius] **P** p.c. eras. commentatus] 91 Visanius V Isamus V A, Visanus G | Filargius V p.c. eras. commendatus P a.c. G a.c. 92 alius aliis G, alii V p.c. H | contractu contractus P G, contractei H | digestoque digesto quae G 93 aucto] auctoque V p.c. A, autoque V a.c. | efficit] effecit V A H | quinque] quique P a.c. sup. lin. | Notae | Noctae V a.c. | Notae ... 95 appellantur | desinit in B 94 praefixis | praexis V a.c. A a.c., pressis \mathbf{A} p.c. | caracteribus \mathbf{C} caracteribus \mathbf{P} \mathbf{V} \mathbf{A} a.c., caracteribus \mathbf{A} p.c., carecteribus \mathbf{M} | et \mathbf{C} 96 DE ... IVRIDICI] G om. IVRIDICI] iuridicis H B, iuridicii M 95 quas quos G 97 libris] libros A | iuris] G p.c. eras. quo] quae M 98 celeris] celebris B | breuiorque] breuorque A a.c. | Scribebatur Scribantur H | uerbi] uerba P V | per] pro V a.c. | 99 per] pro V a.c. | consultus] consultum $\mathbf{B} \mid \text{per}^2$] pro \mathbf{V} a.c. | respublica] resbuplica $\mathbf{V} \mid \text{per}^3$] pro \mathbf{V} a.c. | et³] \mathbf{A} om.

⁸² DE ... GRAMMATICOS] G om. | DE ... 85 facta] desinit in H M B | GRAMMATICOS] gramaticus P 89 stantes A, stantes B T, adstantes C K | diuersis] diuisis Etym. 90 prius] primus Etym. | commentatus] commentus T, commentatus A B C K 91 Visanius] Vipsanius T, Virsanius U, Vipersamnius A1 B, uir samnius K L A², Vipsamnius C 92 contractu] contractus K¹, contractos L, contractu A B C T 93 efficit] effecit A B, efficit A K T U 96 IVRIDICI] iuridicis Etym. 99 consultus] consultum Etym., consultus A C T

100 Romanus, per D et T dumtaxat, per supinam M W litteram mulier, per P secundum naturam pupillus, per A uerso capite pupilla, per unum K kaput, per duo kappa iuncta KK kalumniae causa, per I et E iudex esto, per D et M dolum malum. Cuius generis plurimae consimiles notae in libris antiquis inueniuntur. Has iuris notas nouicii imperatores a codicibus legum abolendas sanxerunt, quia 105 multos per haec callidi ingenio ignorantes decipiebant, atque ita iusserunt scribendas in legibus litteras, ut nullos errores nullas ambages efferant, sed sequenda et uitanda aperte demonstrent.

DE NOTIS MILITARIBVS

In breuiculis quoque quibus militum nomina continebantur propria nota erat 110 apud ueteres quia inspiceretur quanti ex militibus superessent quantique in bello cecidissent. Tau nota in capite uersiculi posita superstitem designabat. Theta uero ad uniuscuiusque defunctionem adponebatur. Vnde et habet per medium telum id est mortis signum, de qua Persius ait: Et potis est nigrum uitio praefigere theta. Cum autem in pueritiam significare uellent labda littera usi sunt

113 Et ... 114 theta] Persius, Saturae 4, 10

100 per¹] pro **V** a.c. | per²] pro **V** a.c. | supinam ... mulier] supitwm M W litteram mulier **A** a.c., sopinam W litteram mulier **M**, supinam litteram mulier **B** | per³ | pro **V** a.c. **101** pupillus | pipillus **A** a.c. $| per^1 | pro \mathbf{V}$ a.c. $| uerso \mathbf{V}$ p.c. $| per^2 | pro \mathbf{V}$ a.c. $| kaput \mathbf{B} | per^3 | pro \mathbf{V}$ a.c. **A** 102 duo ... KK] duo kappa KK H, duo KK kappa iuncta M B | per¹] pro V a.c. | per²] pro V a.c. | dolum ... 103 malum] dolum et malum B 103 plurimae consimiles complures similes B consimiles consiles **A** *a.c.* **104** codicibus] quodicibus **A** a.c. | quia ... 107 demonstrent] quia multos per haec ignorantes decipebant M, qui multos per haec ignorantes deceperunt B **105** multos moltos **A** per pro **V** a.c. iusserunt ius serunt **A** a.c. 106 nullos nullus P G nullas] nullus G | ambages] ambaies P sed ... 107 sequenda] sedquenda A a.c. aperta **P G 108** DE ... MILITARIBVS **G** om. **109** breuiculis breuiculis **V** a.c. | propria ... erat proprie nota erat V a.c., propriae notae erant G p.c. M B 110 quia] quibus G, quo B 111 Tau] T littera add. sup. lin. in A, add. in marg. ext. in G | in ... posita] in P dittographia adest in capite uersiculi posita uersiculi posita superstitem supraestitem P A p.c. M, sprestitem A a.c. Theta Θ littera add. sup. lin. in **A**, add. in marg. ext. in **G** 112 uniuscuiusque defunctionem unius defunctionem cuiusque V A, uniuscuiusque defunctionemen P, unuscuiusque defuncti nomen H 113 mortis motis A a.c. | Persius Prosius V a.c. 114 praefigere perfringere B Cum quam P G, quum V | Cum ... 121 litterae] desinit in M B | labda] lauda G

¹⁰⁰ supinam ... mulier] supinam W litteram mulier T, supinam M litteram mulier A B C, supinam M litteram mulier W K L 101 A uerso] P auerso B 102 duo ... KK] duo KK iuncta β , duo kappa iuncta $\alpha \gamma$ 103 Cuius ... inueniuntur] Cuius generis plurimas consimiles notas in libris antiquis inuenimus K L, Cuius ... inueniuntur A B C T 106 efferant] afferant Etym. 107 demonstrent] demonstrarent A β , demonstrent B C T 110 quia] qua Etym. 112 uniuscuiusque defunctionem] uniuscuiusque defuncti nomen Etym. 114 in pueritiam] inperitiam B K L, in pueritiam T, inpuritiam U C1 | labda] lauda K L, lauta B

115 sicut mortem significabant cum ponebant theta ad caput. In stipendiorum quoque largitione propriae erant notae.

DE NOTIS LITTERARVM

Notas etiam litterarum inter se ueteres faciebant, ut quicquid occulte inuicem scripturas significare uellent mutue scriberent. Testis est Brutus, quibus in his 120 litteris ea quae acturus erat notabat, ignorantibus aliis quid sibi uellent esse litterae. Caesar quoque Augustus ad filium quoniam inquit innumerabilia incidunt assidue quae scribi alterutrum oporteat et esse secreta, habeamus inter nos notas si uis tales, ut cum aliquid notis scribendum erit, pro unaquaque littera scribamus sequentem hoc modo pro A B, pro B C et deinceps eadem ratione 125 ceteras pro Z autem littera redeundum erit ad duplex AA. Quidam etiam uersis uerbis scribunt.

DE NOTIS DIGITORVM

Sunt quaedam et digitorum notae, sunt et oculorum, quibus secum taciti proculque distantes conloquuntur, sicut mos est militaris, ut quotiens consentit 130 exercitus quia uoce non potest, manu promittat. Alii quia uoce non possunt

¹¹⁵ mortem] moru G | cum ponebant] componebant P G, cum ponebent A a.c. 116 largitione] P p.c. in ras. manu recentiori 117 DE ... LITTERARVM] G om. 118 Notas] Notis P A G | litterarum] litteram P, litterum A a.c. | quicquid] quidquid P V 119 scripturas] per scripturas V p.c. | est Brutus] Brutus est V A 120 acturus] hacturus V p.c. esse] ee P, et ae V A, ae H 121 Caesar ... 126 scribunt] Cesar Augustus ad filium: inter nos notas si uis tales ut cum aliquid notis scribendum erit, pro unaquaque littera scribamus, sequentem hoc modo pro A B, pro B C et deinceps eadem ratione caeteras, pro Z autem littera redeundum erit AA duplex. Quidam etiam uersibus scribunt M, Caesar Augustus ad filium: inter nos notas si uis tales, ut cum aliquid notis scribendum erit, prolixa quoque litera scribamus, sequente hoc modo etc. A.B. pro B.C. et deinceps eadem ratione caeteras per Z.Ä. litera redeundum erit, A.A. duplex; quidam etiam uersibus scribunt B | Augustus] Agustus P V A a.c. 122 assidue quae] assidueque H oporteat] oportetur V A 123 cum] quum V p.c. **124** pro¹] per **A** *p.c.* | ratione] rationem**PA 125** ad]a **P V** a.c. **A** a.c.**H 126** uerbis]**G**om. 127 DE ... DIGITORVM] G om. | DE ... 135 loquitur] desinit in M B 128 taciti] tacti A a.c., tacitu G a.c., tacito G p.c. 129 distantes] distantis P a.c., distantas V a.c. A a.c. **130** uoce¹] uocem **P V** *a.c.* **A** *a.c.* **G** *a.c.* | manu] mane **A** *a.c.* | uoce²] uocem **P V** *a.c.* **A G M B** | possunt] pos P, post V a.c. A, potest G a.c

¹¹⁹ scripturas] per scripturas Etym. | quibus ... 120 litteris] qui in his litteris T, quibus in litteris K, quibus in his A^1 B C^1 120 esse] haec Etym. 122 incidunt] accidunt Etym., incidunt A B C 128 taciti] tacito T

gladiorum motu salutant. Ennius de quadam inpudica: Quasi in choro pila ludens datatim dat sese et communem facit. Alium tenet, alii nutat, alibi manus est occupata, alii peruellit pedem, alii dat anulum expectandum, a labris alium inuocat, cum alio cantat adtamen aliis dat digito litteras. Et Salomon: Annuit 135 oculo, terit pede, digito loquitur.

131 Quasi ... 134 litteras] Naevius, Comoediarum fragmenta, Tarentilla II 134 Annuit ... 135 loquitur] Prov. 6, 13

131 gladiorum motu] motu gladiorum VA | choro] quoro P V a.c. H, coro A pila] copia A a.c.
132 alii nutat] alium mutat G | manus] manu A a.c. G 133 occupata] occupatus P G |
peruellit] prouellit V a.c. 134 adtamen] G om. aliis] alius G 135 terit] teret P V a.c. A

132 alii nutat] alii adnotat α , alium adnotat β , alii adnutat T U, alii nutat V | manus] manum T 135 terit] teret C^1K T W, terret A

